

Overhauling the NEB: Energy Regulation for a Clean Economy

Submission to the National Energy
Board Modernization Expert Panel

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environmental
defence

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Introduction

Environmental Defence Canada (EDC) is Canada's most effective environmental organization, working to defend clean water, a safe climate, and healthy communities. EDC challenges and inspires change in government, business and people to ensure a greener, healthier and prosperous life for all. Our work for over 30 years, at the provincial, national and international levels, has covered a wide range of environmental and energy issues in Canada. Through our intervention in various National Energy Board (NEB) pipeline review processes, EDC has developed deep knowledge of the NEB and its role as Canada's national energy regulator.

EDC appreciates the National Energy Board Modernization Expert Panel's (the Expert Panel) work to develop recommendations to modernize the NEB. We would also like to thank the Modernization Secretariat for its hard work in administering the Expert Panel's public process and for making itself available to answer questions about the process.

Over the last decade, major energy infrastructure project proposals — such as tar sands pipelines — have been plagued by controversy. Public confidence in NEB regulation, project reviews, and decision-making has plummeted, resulting in a situation that is not working for stakeholders, whether they be industry proponents, opponents of a project, the federal government, First Nations, or the Canadian public. The problems with the NEB, and energy regulation and natural resource management in Canada more broadly, run deep and cannot be addressed by modest reforms and tinkering around the edges. EDC urges the Expert Panel to recognize the need for a substantial overhaul of energy and environmental regulation and build a new regulatory regime that protects Canada's environment and natural capital, aligns energy regulation with Canada's climate commitments, and fulfills the federal government's promise to balance a healthy economy with a healthy environment.

The *National Energy Board Act (NEB Act)* was first proclaimed in 1959 and, despite amendments in 1994 and 2012, has not undergone substantive change in nearly sixty years. An overhaul is long overdue. Legislation that guides energy regulation and natural resource management must reflect dramatic social, economic, technological, and environmental changes in Canada and around the world. This is especially true after the coming into force of the United Nations Framework on Climate Change's Paris Agreement (the Paris Agreement), as the impacts of climate change accelerate and society adjusts to rapid changes in energy technology, production, transmission, distribution, storage, and transportation.

When the NEB was established, the merits of fossil fuel production and infrastructure were unquestioned, endless growth in fossil fuel demand was seen as self-evident, the causes and impacts of climate change were not well known or understood, and alternative technologies were either non-existent or non-competitive. All of this has changed. For example, solar power has seen massive

advances in scale, cost-effectiveness and efficiency that were not thought possible even five years ago. For this reason, **EDC recommends that the NEB undergoes a legislated review every five to ten years, in line with the latest scientific evidence in climate change, energy technology, global energy markets, environmental protection, and other applicable fields.**

We also strongly recommend that the Expert Panel works closely and shares information with the other expert bodies overseeing the review of Canada’s environmental and regulatory laws and processes, including the review of Environmental Assessment (EA) processes, the review of the *Navigation Protection Act*, and the review of the *Fisheries Act*. The coordinated environmental and regulatory laws and processes is a once-in-a-lifetime opportunity to build a robust energy and environmental regulatory regime in Canada.

As outlined further in this submission, energy regulation, natural resource management and the major energy project review process must inform and be informed by next-generation environmental assessment laws and processes, as well as strong laws to protect Canada’s environment and natural capital. **EA reform and NEB modernization are inextricably linked, and the two expert panels, as well as legislators that are implementing the recommended reforms, should have formal processes for sharing information.**

EDC’s submission will make general comments on NEB modernization and also make specific recommendations in response to questions posed in the Expert Panel’s twelve discussion papers. For a summary of EDC’s recommendations, please see Annex 2 at the end of this submission.

1.0 NEB Governance

It is clear that the Canadian public has lost confidence in the NEB¹ and sees the NEB as unable to separate its mandate as a regulator from the interests of the fossil fuel industry it is required to regulate. This has led many observers to describe the NEB as suffering from “regulatory capture”² and call for changes to the NEB’s governance structure.

To address the NEB’s regulatory capture and ensure Canada’s energy regulator becomes a diverse, inclusive, impartial body that makes evidence-based decisions, EDC proposes the following recommendations:

- **The requirement that NEB Board members be located in the Calgary region should be eliminated immediately.** This requirement has resulted

¹ Ekos Research Associates. (March 2016). Canadian Attitudes toward Energy and Pipelines. Retrieved from http://www.ekospolitics.com/wp-content/uploads/full_report_march_17_2016.pdf

² Desmog Canada. (February 2017). How to Fix the National Energy Board, Canada’s ‘Captured Regulator’. Retrieved from <https://www.desmog.ca/2017/02/08/how-fix-national-energy-board-canada-s-captured-regulator>

in Board members being too close to the oil and gas industry. This bias is reflected in the networks, knowledge, experience and expertise brought to the Board by members coming from careers in the oil and gas industry. It also leads to the crowding out of Board members of diverse backgrounds that may hold other expertise. Marc Eliesen, former CEO of BC Hydro and Ontario Hydro, describes the Calgary residence requirement as a “revolving door” between the oil and gas industry and the NEB.³ A national regulator should represent the broad interests of Canada’s diverse people and regions, rather than being weighted toward one region.

- **The background and expertise of Board members should be expanded to include the following fields:**
 - Climate change
 - Climate science
 - Community Development
 - Decarbonization
 - Emerging technologies, such as smart grids, energy storage, and electric vehicles
 - Energy emissions modeling
 - Energy and electricity markets
 - Indigenous law, governance, environmental monitoring and consultation
 - Renewable energy
 - Sustainable building
 - Understanding of public interest and public participation

- **People with expertise and experience in the oil and gas industry should still be eligible for Board membership, but they need to be clearly disconnected from conflicts of interest.** Direct conflicts have undermined public confidence in the Board’s impartiality in the past. For example, two former NEB chairs, Kenneth Vollman and Roland Priddle, were inductees in the Canadian Petroleum Hall of Fame. Steven Kelley, who previously worked as a consultant for Kinder Morgan on the Trans Mountain Expansion project, was appointed by the former federal government to the NEB panel that was reviewing the same project.⁴ Conflicts of interest add to the public perception that the NEB is a captured regulator and have resulted in controversy and delay to NEB project review processes, increasing industry uncertainty and fuelling public distrust.

- **Board members assigned to specific energy review panels should come from the regions affected by the project.** Board members should understand, and be perceived to understand, the unique historical, cultural, economic and political characteristics of provinces and regions impacted by an energy project. This will also reduce the public perception that the NEB is

³ Ibid.

⁴ Ibid.

disconnected from regional and local concerns. For example, there should be a panel member from northern Ontario on the Energy East review panel.

- **Board members should be diverse, reflecting Canada’s regional, linguistic, and ethnic diversity, and include Indigenous representation.**
- **Board members and NEB staff should be given mandatory training on climate change**, including carbon budgets, international climate agreements and provincial and national commitments to reduce emissions in Canada. In the 21st century, climate policy is inseparable from energy policy and regulation and natural resources management. As mentioned above, the NEB cannot continue its work as a regulator without considering the imperative of climate policy in avoiding dangerous climate change.
- **Reform the NEB to enhance public participation** (See Public Participation section below). For models of public engagement for regulators in project review processes, the Ontario Energy Board (OEB) review of Energy East can serve as a good example to follow. The OEB process for reviewing Energy East involved public and stakeholder sessions in communities throughout Ontario along the pipeline route, independent reports prepared for the OEB by third-party experts, and opportunities for online submission of comments from the public. The review process also responded to public demands for a greenhouse gas (GHG) assessment of Energy East, because the topic came up frequently at public sessions.⁵

2.0 Mandate, Regulatory Framework, and Decision-making Roles

The review of Canada’s environmental laws and processes, including NEB Modernization and Environmental Assessment reform, should result in a framework that is of optimal benefit to the public. **EDC recommends legislative solutions that leverage the strengths, expertise and core competencies of existing regulatory agencies. We also recommend legislative and policy change that creates an efficient energy planning and project review process that enhances sustainability, democratic and evidence-based decision-making, and public confidence, while more broadly considering the public interest and Canada’s climate commitments.** A modernized NEB that works optimally for the benefit of the Canadian public is interdependent with a next-generation environmental assessment process, with alignment with climate policy and sustainability at its forefront.

⁵ Ontario Energy Board. (2015). The Ontario Energy Board Energy East Consultation and Review. Retrieved from <http://www.ontarioenergyboard.ca/oebenergyeast/EEindex.cfm>

2.1 Strategic Environmental Assessments

Robust energy regulation in the 21st century is dependent on the establishment of a next-generation Strategic Environmental Assessment (SEA) framework as a planning tool. SEA is a formalized process of identifying and assessing the impacts and possible contribution to sustainability of a proposed project, decision, plan or policy and then planning to avoid or mitigate negative impacts and advance sustainability priorities. SEA divides EAs into two sub-categories: 1) regional SEAs that focus on impacts on a region of one or more economic sectors, and 2) SEA of policies, plans and program proposals, including funding initiatives.⁶

EDC fully endorses the recommendations from West Coast Environmental Law in its December 2016 submission to the review of federal Environmental Assessment processes.⁷ We urge the NEB Modernization Expert Panel to become familiar with this submission when making recommendations on the relationship between NEB energy project reviews and the EA process.

SEAs must be seen as a planning tool that creates the regulatory framework in which the NEB review of individual energy projects can occur. **The NEB must not be the government institution leading EAs.** The NEB is not currently legislatively mandated to consider the broader public interest and should not be in a position to consider whether a proposed project is in the public interest. This mandate must fall to either a revamped Canadian Environmental Assessment Agency (CEAA) or a new government agency that performs SEAs that ensures individual projects are in the public interest, environmentally sustainable, and aligned with Canada's climate commitments.

The establishment of a regulatory framework for SEAs can have the positive effect of realizing efficiency gains for the review of individual projects. **If the federal government puts in place an inclusive, transparent, evidence-based SEA framework, then the NEB is well suited to continue playing its traditional role of evaluating the technical details of proposed energy infrastructure.** The NEB should even play a role in EA, providing input to the SEA process, such as its perspective on the economic need for a proposed project, but only as a stakeholder and not as a decision-maker. The NEB is not equipped to make decisions on broader issues of sustainability, public interest,⁸ and climate and energy planning, nor should it be.

⁶ West Coast Environmental Law (2017). Environmental Assessment. Retrieved from <http://www.wcel.org/our-work/environmental-assessment>

⁷ West Coast Environmental Law. (December 2016). Review of Federal Environmental Assessment Processes: West Coast Environmental Law Submissions on next generation environmental assessment. Retrieved from <http://wcel.org/sites/default/files/publications/wcel-submissions-to-ea-panel-final-16-12-23.pdf>

⁸ Although "public interest" is mentioned 17 times throughout the *NEB Act*, it currently includes no definition of the term. *National Energy Board Act*. (1985). Retrieved from <http://laws-lois.justice.gc.ca/eng/acts/N-7/>

2.2 NEB Needs Assessment

Currently, the NEB conducts a “needs assessment” of proposed energy projects, outlined in section 52(2) of the *NEB Act*. The assessment includes consideration of the availability of commodities, the existence of markets, the economic feasibility and financial responsibility of the applicant, as well as “any public interest that may be affected.” **The needs assessment is a vital part of an energy project review and specialized experts at the NEB should continue to conduct the needs assessment test.**

The needs assessment should become a technical input into a multi-party project-specific environmental assessment led by the revamped EA agency. However, **the requirement in section 52(2)(e) of the *NEB Act*⁹ that the NEB considers “public interest” should be removed from the legislation.** Public interest should be formally defined instead in the *Canadian Environmental Assessment Act* (CEEA) in a way that reflects environmental considerations, the interests of future generations, sustainable development, and long-term decision-making. Public interest should be studied in full as part of the project EA, to which the NEB would provide technical input and analysis.

This change would ensure that each regulatory agency is focused on its core competencies while eliminating potential duplication between the NEB and EA bodies. The NEB would retain its other regulatory functions, such as determining whether a pipeline may be safely opened for transmission, detailed route approvals, and orders to ensure safety and security of operation of a pipeline. The NEB, in its regulatory role, should also regain the ability to *deny* a certificate to a project if certain financial and market conditions are not met. But it should not be the authority responsible for EA.

In order to play this role in the energy project review process, the NEB must conduct energy market analysis or climate policy modeling that is consistent with federal and provincial climate commitments and the Paris Agreement. Energy regulation and project reviews must be aligned with climate policy. **EDC recommends that the *NEB Act* be amended to explicitly require that domestic and global climate commitments underlie the NEB’s market analysis and needs assessment modeling.** This part of the “climate test” and the need for better data collection will be discussed below in this submission, as

⁹ *Ibid.* S.52(2): Factors to consider.

- (a) the availability of oil, gas or any other commodity to the pipeline
- (b) the existence of markets, actual or potential
- (c) 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
- (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

well as in EDC's complementary submission to the Expert Panel, a "Climate Test White Paper."

This framework allows the NEB to feed into the broader EA process and evaluation of a project's public interest that determines the net benefits of a project. The NEB will bring needed energy and economic information to the EA process, while neutralizing widespread concerns that individual project reviews are not the place for consideration of larger policy and planning discussions about climate change, sustainability and economic need.

2.3 Final Decision-Making on Energy Projects

NEB Modernization engagement sessions fostered a spirited discussion about which government body makes the decision on whether to approve or reject a major energy project. Since reforms to the NEB in 2012, the NEB completes its review of an energy project and makes a recommendation to the Prime Minister and federal Cabinet to reject or approve the project. It often attaches additional conditions to the approval in order to address stakeholder concerns and mitigate risks and impacts. Cabinet then has 90 days to make a final decision on a project. In its 60-year history, the NEB has never rejected a crude oil pipeline project. The federal Cabinet rejected Enbridge's Northern Gateway pipeline in November 2016.¹⁰

On the question of final decision-making power for pipeline projects, it is less important *who* makes the decision, but rather *how and why* the decision is made. Energy project decisions will always include a values-based component and it would be futile to insist that politics and public opinion will not play a role in decision-making. Both the NEB and the federal Cabinet will bring their own interests and values to a review. **The objective must be to make energy regulation and energy project review credible in the eyes of the public and require transparency, accountability and evidence in final decision-making to de-politicize the process as much as possible.** Final decisions must also be made in the spirit of Indigenous reconciliation the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), in particular its requirement for First Nations affected by an energy project to give their free, prior and informed consent.

Since there will inevitably be values-based and discretionary elements to decision-making, then there must be accountability and transparency mechanisms to justify that decision. It is more important that the institution making a final decision is authoritative, independent, trusted, impartial and based on evidence. Right now, the NEB does not meet these criteria and is perceived by the public to administer a biased review process that is torqued to approve energy projects. For an effective model for effective environmental and energy review and regulation, the Expert Panel should look to Quebec's Bureau d'audiences publiques sur l'environnement, which is designed to be independent, open, transparent and responsive to the

¹⁰ CBC News. (November 2016). Trudeau cabinet approves Trans Mountain, Line 3 pipelines, rejects Northern Gateway. Retrieved from <http://www.cbc.ca/news/politics/federal-cabinet-trudeau-pipeline-decisions-1.3872828>

public, and includes commissioners who are recognized for their ethical qualities and experience in public consultation.

If the federal Cabinet is to retain final decision-making powers, then it must be required by law to explain to Canadians how and why the decision was made, defending the process it followed, making public the evidence it weighed during that process, and referring directly back to evidence and recommendations made during the review process in explaining the decision. The federal Cabinet as final decision-maker must also explain how its decision honours Indigenous reconciliation and respects the jurisdiction of provinces and municipalities.

2.4 Future Decommissioning of Projects

The NEB has a mandate to regulate energy projects over their entire lifespan. As Canada transitions to a low-carbon economy in the 21st century, the NEB must shift its focus and resources from construction and operation toward decommissioning and remediation.

The Prime Minister's comments in January 2017 about the phase-out of the tar sands may have been controversial,¹¹ but a phase out is in fact what must occur. If Canada and the world are committed to reducing 80 per cent of GHGs by 2050¹² and complete decarbonization shortly thereafter, then the production of fossil fuels must decline and be phased out in a matter of decades.

This transition necessitates the decommissioning, clean-up and remediation of fossil fuel projects, including tar sands mines and oil and gas wells. Wells that aren't producing and haven't been properly sealed pose environmental risks that could pollute groundwater or soil and lead to the growth of invasive weeds. Abandoned sour gas wells can leak poisonous gas that can kill humans within seconds.¹³

Alberta's Auditor General estimated that the cost of reclaiming oil sands mines would be more than \$20 billion. There's currently no estimate as to the cost of reclaiming thermal oil sands projects.¹⁴ Landowners throughout Alberta are already noticing signs of trouble and raising concerns about orphan wells, leaking pipelines, and contaminated sites that are not being cleaned up. As of February 2017, total

¹¹ CBC News. (January 2017). Trudeau's 'phase out oilsands comments spark outrage in Alberta. Retrieved from <http://www.cbc.ca/news/canada/edmonton/justin-trudeau-oilsands-phase-out-1.3934701>

¹² Government of Canada. (November 2016). Canada's Mid-Century Long-Term Low-Greenhouse Gas Development Strategy. Retrieved from http://unfccc.int/files/focus/long-term_strategies/application/pdf/canadas_mid-century_long-term_strategy.pdf

¹³ National Observer. (February 2017). Alberta's oil and gas wells are triggering a multibillion dollar bill. Retrieved from <http://www.nationalobserver.com/2017/02/27/news/albertas-oil-and-gas-wells-are-triggering-multibillion-dollar-bill>

¹⁴ CBC News. (January 2017). Could the oilsands really be phased out? Here are the possibilities. Retrieved from <http://www.cbc.ca/news/business/phasing-out-the-oilsands-could-it-happen-1.3940881>

liabilities from abandoned, orphaned, and inactive wells were as high as \$30.5 billion. Some industry analysts estimate remediation costs and liabilities could be as high as \$300 billion.¹⁵

Already, the Petroleum Services Association of Canada asked the federal government for \$500 million in infrastructure funds to accelerate well decommissioning.¹⁶ Last year, the Premier of Saskatchewan asked the federal government for \$156 million to decommission and reclaim non-producing oil wells.¹⁷ The federal government included a “one-time payment of \$30 million to the Government of Alberta to support provincial actions that will stimulate economic activity and employment in Alberta’s resource sector” in its 2017 budget.¹⁸ The Premier of Alberta has said this money will be used to remediate orphan oil and gas wells.¹⁹ This is a good start, but it is not nearly enough to address the growing number of orphaned and abandoned wells, and significantly greater resources will be needed to address the expense of decommissioning and remediation and the risks of old energy infrastructure to land, water and communities.

Information about tar sands projects that need reclamation and orphaned and abandoned oil and gas wells is the kind of information an energy regulator should be collecting. **The NEB should develop a database and map of abandoned oil and gas wells and track the costs of tar sands project decommissioning.** It’s in the public interest for Canadians to know the life cycle costs of a project and its impacts on land and water even after the project becomes inactive. **NEB modernization should include legislative amendments to guarantee industry funding will be available for decommissioning and remediation work.** The public should not be left on the hook for these costs, especially as the NEB shifts from a regulator and reviewer of new fossil fuel projects to a regulator for decommissioning old fossil fuel infrastructure and reclaiming land and water affected by it. Currently, the Alberta Orphan Well Association is responsible for reclamation, funded by an industry levy, but the levy is insufficient to cover the costs of remediation.²⁰ The NEB should play a role in collecting information that ensures the federal government has the funds available for decommissioning and reclamation.

¹⁵ National Observer. (2017). Alberta’s oil and gas wells

¹⁶ Calgary Herald. (March 2017). NDP promises action on orphan wells, support for Trans Mountain pipeline. Retrieved from <http://calgaryherald.com/business/energy/varcoe-ndp-promises-action-on-orphan-wells-joins-trans-mountain-legal-battles>

¹⁷ CBC News. (February 2016). Sask. Seeking \$156M from Ottawa to clean up old oil wells. Retrieved from <http://www.cbc.ca/news/canada/saskatchewan/brad-wall-seeks-156-million-for-oil-patch-cleanup-program-1.3438670>

¹⁸ Government of Canada. (March 2017). Building a Strong Middle Class: #Budget2017. Retrieved from <http://www.budget.gc.ca/2017/docs/plan/budget-2017-en.pdf>

¹⁹ Calgary Herald. (March 2017). Federal money for orphan wells a first step, but more must be done. Retrieved from <http://calgaryherald.com/business/energy/varcoe-federal-money-for-orphan-wells-a-first-step-but-more-must-be-done>

²⁰ Calgary Herald. (2017). Federal money

3.0 Energy Data Collection

As a primary source for a range of information on Canadian energy supply, demand and market-related issues, the NEB publishes information that is used by the federal government, industry, investors, the media and civil society. It influences policy, investment decisions, economic activity, and public discourse on energy and environmental issues. This is why it is so important for the NEB to collect authoritative information that captures different perspectives and scenarios.

Unfortunately, there are numerous problems with the information that is collected and published by the NEB, and even greater problems with the information that the NEB does *not* collect and publish. Canadian provinces and businesses often rely on other sources of energy information, such as Genscape, Rystad and the United States Energy Information Administration (EIA), particularly for real-time data. After modernization, Canadians should have an energy regulator that is a trusted aggregator of energy information and statistics.

3.1 Climate Change and Greenhouse Gas Emissions

EDC was awarded funding by the Modernization Secretariat to develop a white paper that would provide guiding principles and recommendations for aligning proposed energy project assessments with climate policy. The “Climate Test White Paper” will be provided to the Expert Panel in a separate submission from EDC. The following section is a short summary of the Climate Test White Paper. The Executive Summary and recommendations of the Climate Test White Paper can be found in Annex 2 of this submission.

Energy regulation, natural resource management, and project review processes should be informed by rigorous scientific and technical evidence and be aligned with domestic and international climate policy and global oil demand and supply scenarios in line with the Paris Agreement. In particular, **energy projects should be subject to a climate test, a process that ensures that the regulation and review of energy projects supports, rather than compromises, Canada’s domestic and international climate commitments. The NEB Act should be amended, in its preamble and all other sections, to recognize the relationship between climate policy and energy projects, Canada’s legislated domestic and international climate commitments, and the inseparable role of energy infrastructure in meeting these commitments.** This recognition should be integrated across all of the functions of the NEB. In keeping with EDC’s recommendations on the interdependence of the reformed NEB and EA agencies, EDC also recommends the *CEEA* be amended to ensure climate commitments are integrated across the reformed EA agency’s functions and mandate.

Canada has made a clear commitment to tackle climate change in line with the Paris Agreement to strive to limit global warming to 1.5 C. The federal government

has adopted targets to cut carbon pollution by 30 per cent below 2005 levels by 2030 and 80 per cent by 2050. Many, including EDC, would argue that these targets are too weak.²¹ EDC would also argue that the recently-announced pan-Canadian climate framework, while a positive and historic step forward, does not provide a detailed plan to meet those weak targets.²²

Going forward, Canada needs data and a process that tests whether or not a proposed project fits within Canada's climate targets, as well as provincial policies such as the cap-and-trade programs in Quebec and Ontario and the Alberta oil sands emissions cap. The climate test must:

- Be guided by the most recent authoritative climate science
- Be based on models that are consistent with the global economic transition away from fossil fuels
- Assess the need for projects and policies in the context of global energy supply and demand scenarios consistent with the Paris Agreement
- Evaluate a project or policy's GHG emissions and their effect on national and international efforts to meet long-term carbon reduction targets. This includes incremental upstream and direct emissions of a project or policy, and the economic viability of a project or policy in a world that follows through on the Paris Agreement

In keeping with the fundamental connection between the EA reform process and NEB modernization, and between Canada's climate commitments and energy supply and demand scenarios, **EDC recommends that project EAs assess upstream and direct GHG emissions, relative to legislated climate commitments at the provincial and federal level. The CEEA should be amended to explicitly reflect this "climate test"**. The current, discretionary way that the federal government assesses GHGs and the contribution of energy projects to Canada's carbon budget have undermined the credibility of EAs and project reviews and prompted a public backlash that has created regulatory uncertainty.

Other jurisdictions, such as the European Union, are now considering including a climate test for energy projects.²³ The Stockholm Environment Institute has also prepared a briefing note on how Norway, a country with a large oil industry, could apply a climate test that ensures decision-making processes on energy projects are

²¹ Environmental Defence. (September 2016.) Prime Minister Trudeau adopting former federal government's weak carbon reduction targets. Retrieved from <http://environmentaldefence.ca/2016/09/22/prime-minister-trudeau-adopting-former-federal-governments-weak-carbon-reduction-targets/>

²² Environmental Defence. (December 2015). The Pan-Canadian Climate Framework: Historic and Insufficient. Retrieved from <http://environmentaldefence.ca/2016/12/15/pan-canadian-climate-framework-historic-insufficient/>

²³ European Commission. (February 2017). Second Report on the State of the Energy Union. Retrieved from https://ec.europa.eu/commission/sites/beta-political/files/2nd-report-state-energy-union_en.pdf

consistent with a 2 C warming scenario.²⁴ EDC strongly encourages the Expert Panel to review our white paper on a climate test for further recommendations on the NEB's role in ensuring energy projects and regulation are aligned with climate policy.

The federal government has taken a small step toward a climate test with its Interim Measures for pipeline reviews,²⁵ but the assessment is insufficient. It is not considered within the context of a larger policy framework that includes national and subnational climate commitments, as well as the share of Canada's carbon budget attributable to particular industry sectors. **Once a reliable climate test is put in place, a proposed energy project that would result in incremental upstream and direct emissions that are higher than potential alternatives to the project or would hinder the achievement of Canada's climate commitments, should be rejected outright by the revamped EA authority, before the NEB's technical review begins.**

Consider the application of a climate test with respect to the pipeline debate in Canada right now. In November 2016, the federal government approved two pipelines, Enbridge's Line 3 and Kinder Morgan's Trans Mountain Expansion. Environment and Climate Change Canada's own numbers^{26,27} show these projects would increase upstream GHG emissions by 23 to 28 million tonnes (MT). The additional emissions from oil production needed to fill these pipelines would approach or exceed the legislated 100 MT cap on Alberta oil sands emissions, while forcing other economic sectors and provinces to achieve a disproportionate share of emissions reductions to meet Canada's climate targets.

Yet the federal government appears supportive of two additional pipeline projects, TransCanada's Keystone XL and Energy East. Will these pipelines facilitate additional direct and upstream GHG emissions from the tar sands? Will their direct and upstream emissions exceed the Alberta emissions cap? How will these projects affect Canada's ability to meet its climate targets? Is there global demand for the oil these projects would supply in a world that has committed to reduce emissions? Is there an economic need for the project over a 50-year lifespan as the world decarbonizes? These are questions that an energy regulator must answer in the 21st century, and a climate test is how to do it.

²⁴ Stockholm Environment Institute. (2017). Norwegian oil production and keeping global warming 'well below 2°C'. Retrieved from https://www.sei-international.org/publications?pid=3113&utm_content=buffer573d0&utm_medium=social&utm_source=twitter.com&utm_campaign=buffer.SEIclimate.

²⁵ Natural Resources Canada. (January 2016). Interim Measures for Pipeline Reviews. Retrieved from <http://news.gc.ca/web/article-en.do?mthd=tp&crtr.page=1&nid=1029989&crtr.tp1D=930>

²⁶ Environment and Climate Change Canada. (November 2016). Enbridge Pipelines Inc. – Line 3 Replacement Program: Review of Related Upstream Greenhouse Gas Emissions Estimates. Retrieved from <http://www.ceaa-acee.gc.ca/050/documents/p80091/116489E.pdf>

²⁷ Environment and Climate Change Canada. (November 2016). Trans Mountain Pipeline ULC – Trans Mountain Expansion Project: Review of Related Upstream Greenhouse Gas Emissions Estimates. Retrieved from <http://www.ceaa.gc.ca/050/documents/p80061/116524E.pdf>

3.1.1 – NEB Modernization and current proposed pipelines

EDC would also like to take this opportunity to note the disconnect between NEB Modernization and the federal government’s approach to Energy East and Keystone XL, both of which will rely on the old NEB energy project review process, which the government has acknowledged is flawed.

Keystone XL was approved by the NEB in 2010. As noted above, there have been significant changes to policy, technology and economics since 2010, and yet the federal government has said that the Canadian portion of the project can move forward using the permits and approvals it received seven years ago.²⁸ Similarly, the NEB review of Energy East has been forced to restart with a new panel because of a perception of bias from the previous panel.²⁹ The pipeline project application has not yet been deemed complete by the review panel, yet the federal government and the NEB insist on moving forward with the new review, using an outdated process that needs to be fixed, before the NEB has been overhauled. **The Expert Panel should acknowledge that new pipelines should be subject to a review by a modernized national energy regulator, not the flawed NEB review process that the Panel has been mandated to fix.**

3.2 Global Energy Supply and Demand Forecasting

Already, a growing number of industry analysts are forecasting a peak in global oil demand far sooner than the NEB’s models. The Carbon Tracker Initiative and Grantham Institute predict that peak demand could come as early as 2020.³⁰ The CEO of Statoil, the Norwegian state oil company, sees growth in the demand for oil halting in the 2020s.³¹ The McKinsey Energy Outlook sees peak demand arriving between 2025 and 2030.³² The CFO of Shell sees the peak coming as early as 2021.³³ And the March 2017 International Energy Agency (IEA) and International

²⁸ Calgary Sun. (November 2016). Carr says feds still support Keystone XL. Retrieved from <http://www.calgarysun.com/2016/11/30/carr-says-feds-still-support-keystone-xl>

²⁹ The Globe and Mail. (January 2017). New NEB panel to reboot troubled Energy East pipeline review. Retrieved from <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/canadas-energy-east-pipeline-to-restart-from-beginning-neb/article33791197/>

³⁰ Carbon Tracker Initiative and the Grantham Institute. (February 2017). Expect the Unexpected: The Disruptive Power of Low-Carbon Technology. Retrieved from http://www.carbontracker.org/wp-content/uploads/2017/02/Expect-the-Unexpected_CTI_Imperial.pdf

³¹ Climate Home. (October 2016). Statoil chief: rise of electric cars will shrink oil industry. Retrieved from <http://www.climatechangenews.com/2016/10/19/statoil-chief-rise-of-electric-cars-will-shrink-oil-industry/>

³² McKinsey & Company. (June 2016). Is peak oil demand in sight? Retrieved from <http://www.mckinsey.com/industries/oil-and-gas/our-insights/is-peak-oil-demand-in-sight>

³³ Bloomberg. (November 2016). Energy Giant Shell Says Oil Demand Could Peak in Just Five Years. Retrieved from <https://www.bloomberg.com/news/articles/2016-11-02/europe-s-biggest-oil-company-thinks-demand-may-peak-in-5-years>

Renewable Energy Agency joint report sees oil demand in 2050 at 45 per cent of today's level.³⁴

Yet in its annual *Canada's Energy Futures* report, the NEB continues to forecast strong growth in global demand for oil, as well as continued growth in Canadian oil production and exports.³⁵ The NEB is doing Canadian industries and citizens a disservice by failing to acknowledge that peak global demand for oil could come much sooner than its *Energy Futures* report forecasts.

Of particular concern is that the NEB's scenarios assume growth in oil demand that would see the Paris Agreement fail.³⁶ The NEB is using oil demand and supply scenarios that would cause global temperatures to rise between 4 C and 6 C, far above the 2 C limit agreed to in Paris, that climate science says would give the world a decent chance of averting dangerous warming. A temperature increase of four to six degrees would cause catastrophic and irreversible climate change that could make the planet uninhabitable for organized human society. The NEB is doing a disservice to Canadians by failing to incorporate global oil supply and demand scenarios in line with the Paris agreement in its studies of energy markets.

Currently, the NEB does not produce the data that Canada's decision-makers need to consider whether an energy project is aligned with Canada's climate commitments and global scenarios for fossil fuel demand and supply in line with the Paris agreement. **EDC recommends that the NEB develop technical capacity to catch up to its peer institutions and produce additional energy statistics and modeling that is consistent with the implementation of the Paris Agreement.** The federal government should consider building a bilateral relationship with the IEA to develop the capacity to produce these analyses.

3.3 Emerging Energy Trends and Markets

While the NEB is a prominent source for data about fossil fuel production and transportation in Canada, it is less equipped to collect, analyze and publish data about the emerging technologies and energy sources of the future. With the world rapidly moving toward electrification, and emerging technologies in renewables, energy storage and smart grids becoming less costly, more efficient and widely-

³⁴ International Energy Agency and International Renewable Energy Agency. (2017). Perspectives for the Energy Transition: Investment Needs for a Low-Carbon Energy System. Retrieved from https://www.energiewende2017.com/wp-content/uploads/2017/03/Perspectives-for-the-Energy-Transition_WEB.pdf

³⁵ National Energy Board. (October 2016). Canada's Energy Future 2016: Update – Energy Supply and Demand Projections to 2040. Retrieved from <https://www.neb-one.gc.ca/nrg/ntgrtd/ft/2016updt/index-eng.html>

³⁶ Ibid. The NEB's *Energy Futures 2016 Update* makes assumptions about global fossil fuel demand trends that are broadly consistent with the International Energy Agency's "no new policy" scenarios in its *Energy Technology Perspectives* report. These scenarios show continued growth of fossil fuel use globally that correspond with 4 C to 6 C of global warming. International Energy Agency. (2016). *Energy Technology Perspectives*. Retrieved from http://www.iea.org/bookshop/719-Energy_Technology_Perspectives_2016.

available, Canada must begin to analyze market trends and national data on these trends.

The NEB releases an annual report on renewable energy in Canada, as well as electricity import and export data. But this report is inadequate for a country that is blessed with natural assets and has the potential to capitalize on the global transition to clean energy.

EDC recommends that the NEB begin producing standardized national and provincial information about clean technology, energy storage, renewable energy, power lines, regional energy systems, grid modernization, electricity demand scenarios, electric vehicles, inter-provincial and international energy exchanges, and emerging market trends. The information should be coordinated with other federal departments and provincial agencies in terms of timing, units and assumptions, and produced in a format that is useful for researchers, stakeholders and the Canadian public. The Expert Panel should look to the U.S. Energy Information Administration (EIA) as a model for energy data and statistics.

3.4 Oil-by-Rail

The NEB releases monthly numbers on the volume of Canadian crude oil that is exported to the United States. However, the data published is presented in aggregate form, without sufficient granularity to be of use. The NEB does not track or publish where the crude oil originates, where in the U.S. it is headed, or what kind of oil is being exported. Meanwhile, Statistics Canada (StatsCan) collects data about the movement of liquid fuels by rail within Canada. Like the NEB, there is no granular data on the type of fuel being transported, where it is being transported, where it originates, or whether it is being transloaded onto tanker, export terminal, barge, pipeline or refinery. StatsCan has a rudimentary method for tracking the east-west movement of crude-by-rail within Canada, with loadings from Thunder Bay, Ontario to the Pacific Coast classified to the “western division” and loadings from Armstrong, Ontario to the Atlantic Coast classified to the “eastern division”.

Between the NEB and StatsCan, as well as the Transportation Safety Board, there is a notable dearth of publicly-available information about crude-by-rail movements in Canada. Considering there are widespread public safety, economic and environmental concerns about crude-by-rail movements across Canada, the NEB should play a role in publishing more useful and accessible information.

With public concerns about crude-by-rail growing after several high-profile rail accidents and the ongoing debate about increased oil-by-rail transportation, Canadians have a right to know what is moving through their communities by rail, how much and when. **The NEB and StatsCan should look to the EIA as a model**, which publishes monthly data on the movement of different types of fuels between American Petroleum Administration Defense Districts (PADDs), as well as

exports and imports to and from Canada. **The three government agencies should also consider consolidating all of the data about crude-by-rail movements under a single agency.** The data collected by StatsCan and the NEB, for example, does not use the same classifications and methods, making comparisons difficult.

3.5 Decommissioning and Reclamation

As mentioned above, the NEB should collect information needed to decommission and reclaim fossil fuel infrastructure, such as tar sands mines and abandoned oil and gas wells. It should develop a database and map of abandoned oil and gas wells and track the costs of tar sands project decommissioning. This will become particularly important as Canada transitions to a low-carbon economy, requiring the managed decline of fossil fuel infrastructure. The NEB must eventually become a regulator that ensures the safe decommissioning and reclamation of fossil fuel infrastructure being phased out, rather than a reviewer of future fossil fuel infrastructure.

4.0 Indigenous Engagement and Consultation

EDC strongly recommends that the federal government follow through on its commitment to Indigenous reconciliation and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), including the right to Free, Prior and Informed Consent for projects on traditional Indigenous lands. The NEB Modernization process and the federal government's work on energy regulation and natural resource management in Canada should be conducted in the spirit of reconciliation with Indigenous Peoples.

It will not be legitimate and effective unless the full and meaningful participation of diverse Indigenous groups is built into every part of the energy and environmental regulatory process, lifecycle of a project, and natural resource management. This lack of legitimacy and trust in the NEB among Indigenous peoples is notable in the numerous legal challenges to pipeline project reviews³⁷ and the growing political opposition to projects reviewed and regulated by the NEB, as evidenced by the Treaty Alliance Against Tar Sands Expansion.³⁸

The concerns of Indigenous Peoples are woven into almost all of the discussion questions asked by the Panel. Indigenous groups report that their concerns and experiences are excluded or marginalized in NEB proceedings and the lifecycle of energy infrastructure and projects regulated by the NEB. The current definition of "standing" in NEB proceedings, limited to those "directly affected" by a project,

³⁷ National Energy Board. (2017). Court Challenges to National Energy Board or Governor in Council Decisions. Retrieved from <https://www.neb-one.gc.ca/pplctnflng/crt/index-eng.html>

³⁸ Treaty Alliance Against Tar Sands Expansion. (2016). Retrieved from <http://www.treatyalliance.org/wp-content/uploads/2016/12/TreatyandAdditionalInformation-20161216-OL.pdf>

does not recognize how Indigenous Peoples view their communities and traditional lands. Standing is defined largely on the basis of where Indigenous Peoples live, sometimes on reserves or in small and remote communities, rather than on the basis of connection to and use of larger territories. Some First Nations have been denied formal standing in an energy project review because of the limited definition of “directly affected”. The definition often does not account for traditional Indigenous land use and treaty rights and has resulted in legal challenges and Indigenous opposition to energy projects.

NEB Modernization must also address the systemic barriers to Indigenous participation in energy project reviews and the full lifecycle operation of projects. Even the physical location of public meetings pertaining to proposed energy projects can create barriers for remote Indigenous communities. Indigenous Peoples, like all participants, must be provided with adequate funding to participate in meetings and hearing processes, and given ample time to prepare meaningful and thoughtful responses to materials presented by project proponents. Indigenous communities must also be given adequate time for decision-making, something that is often not possible under the NEB’s project review timelines. In some cases, First Nations have invited an NEB hearing panel to visit their communities, but were ignored.³⁹ This is inconsistent with engaging Indigenous Peoples in a nation-to-nation relationship. The NEB must meaningfully consider traditional indigenous knowledge, not simply announce a consultation process and treat it like a box that needs to be checked off the list on the way to project approval.

A nation-to-nation relationship can be better nurtured by both symbolic and institutional reforms. For example, including a blessing and ceremony from a local indigenous elder at NEB hearings or engagement sessions is a first step the energy regulator can take to put the spirit of reconciliation into practice. **In accordance with the Truth and Reconciliation Commission,⁴⁰ NEB Board members should be provided with education in the history of Canada’s Indigenous Peoples, including the history and legacy of residential schools, UNDRIP, Treaties and Aboriginal rights, Indigenous law, and Aboriginal-Crown relations.** This will require skills-based training in intercultural competency, conflict resolution, human rights and anti-racism.

A modernized energy regulator should also address the current adversarial nature of NEB proceedings by engaging Indigenous Peoples as partners rather than obstacles. Currently, project proponents make a proposal and then put the onus on participants to refute statements or challenge parts of the proposal they disagree with. **Instead, an energy regulator can work with Indigenous groups to develop a common set of baseline information upon which to base decisions.** Trust of project proponents among Indigenous communities is

³⁹ Presentation from Moose Cree Nation to Expert Panel on National Energy Board Modernization Public Consultation. Toronto, Ontario (February 1-2, 2017).

⁴⁰ Truth and Reconciliation Commission of Canada. (2015). Calls to Action. Retrieved from http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf

reduced when the review process becomes legalistic and adversarial. First Nations present at the Toronto engagement session noted that they felt that NEB hearings serve the interests of consultants and lawyers, rather than the communities and lands affected by a project. They also expressed that the legalistic, technical nature of proceedings eschewed traditional knowledge and strained the limited resources of participating First Nations.⁴¹

5.0 The NEB's Participant Funding Program

Currently, the NEB's Participant Funding Program (PFP) creates an unequal playing field that prevents members of the public and civil society organizations from participating fully and meaningfully in the project review process. Proponents are often large companies with vast resources, while participants in the process are limited in their funding, capacity and time. Participants might include individual landowners affected by an energy project, small remote First Nations, or civil society organizations with limited funding and staff time to engage in energy regulatory processes. The mismatch in resources has the effect of hindering the capacity of participants to provide meaningful feedback to the project review panel, weakening the overall quality of the review and neglecting to put essential information about the benefits and risks of a project in the hands of a review panel.

EDC experienced the problems with the PFP firsthand in its participation as an intervenor in the NEB's reviews of Line 9 and Energy East. For the Energy East review process, in 2015 the NEB offered funding in two phases, each to a maximum of \$40,000, for a total of up to \$80,000 for each eligible intervenor.⁴² However, in August 2015, the NEB arbitrarily and without warning completely reconfigured the PFP, doubling the total pool of funds available for all intervenors from \$2.5 million to \$5 million, but halving the funds available to each intervenor, from a total of \$80,000 over two phases to just \$40,000 for a single phase of participation.⁴³

The sudden reconfiguration of the participant funding program left many groups, including EDC, without the financial means to retain the expert consultants required to produce and present the evidence we initially intended for the hearing. The long delays in approving participant funding in 2015 also made it difficult for intervenors, including EDC, to retain consultants and independent contractors indefinitely, at a time when significant changes were being made to the project description and the review process. For example, EDC was unable to retain an expert consultant in

⁴¹ Expert Panel on National Energy Board Modernization Public Consultation. Toronto, Ontario (February 1-2, 2017). Retrieved from http://www.neb-modernization.ca/system/documents/attachments/cea93a326b697f60828496461b6d3ab55d618bd3/000/005/55/5/original/NEB_Expert_Panel_Toronto_Report_1.5_eng_accessible.pdf

⁴² National Energy Board. (2016). Information session. Participant Funding Program – Energy East Project / Eastern Mainline Projects." Retrieved from <https://www.neb-one.gc.ca/pplctnflng/mjrpp/nrgyst/nrgystprsnntn/nrgstpfp-eng.html>

⁴³ National Energy Board. (2017). Participant Funding Program. Retrieved from <http://www.neb-one.gc.ca/prtcptn/hrng/pfp/prtcptnfndngprgrm-eng.html>

2016 due to delays in the review process, as the consulting firm we planned to work with experienced staff changes.

The halving of funds available to intervenors and the delays in the project review process has created uncertainty in EDC's plans to participate in the hearing and commission consultants to provide expert evidence. Project proponents often have much greater financial resources to hire external firms to undertake studies, hire consultants, prepare expert evidence for the panel, and fund the travel of experts to panel sessions. With the ongoing delay in the review process, the \$40,000 in participant funding allotted to intervenors like EDC becomes increasingly stretched over a longer time period.

The sheer size of the Energy East proponent's application and the number of intervenors and documents in the hearing underscores the need for improvements to the PFP. Enormous time and resources are required to review the proponent's application and monitor all of the filings of the proponent and other participants, let alone undertake research, develop arguments and testimony, prepare and file Information Requests, and prepare for panel sessions, oral cross examination and final arguments.

The gap in financial resources between the proponent and intervenors like EDC has the effect of undermining public participation, the credibility of the process, and the quality of intervenor input to the process. While groups like EDC are left struggling to find experts willing to offer their time and effort for limited PFP funding, the project proponent buys fire trucks and sponsors community events in municipalities along the pipeline route.⁴⁴ This is hardly the recipe for an inclusive, impartial, evidence-based review that maintains the confidence of all participants. It also puts municipalities in a difficult position when the time comes to prepare their own intervention on the project.

To alleviate this problem, one solution is to directly increase the amount of PFP funding available to participants in project reviews.

Another solution is to enhance the capacity of the energy regulator itself to develop independent, evidence-based expert advice and provide it to project reviews. This could have a number of positive outcomes. First, it could reduce the adversarial nature of current NEB hearings. Currently, the project proponent presents expert evidence that it commissioned and is then questioned and refuted by expert evidence that an intervenor commissions. This creates disagreement and conflict over which evidence is more authoritative and adds to the loss of public trust in the regulator.

Secondly, independent NEB capacity for expert advice could alleviate the strain on multiple participants in project reviews, as the independent research done on behalf

⁴⁴ Environmental Defence. (September 2015). Inappropriate TransCanada sponsorship for Ottawa Valley canoeing event raises questions. Retrieved from <http://environmentaldefence.ca/2015/09/03/press-releases-29/>

of the regulator means intervenors would not have to spend their limited PFP dollars on experts.

Third, it builds trust and shared benchmarks between participants and the proponent by requiring them to provide input and respond to the same independent expert evidence.

Fourth, it enables experts themselves to better exercise independence. Often, recognized experts or students are reluctant to conduct studies on behalf of intervenors because producing a study with a certain set of conclusions could hurt their chances of finding future employment in the industry in which a project is being reviewed and regulated. **An independent pool of experts within the energy regulator could help alleviate this problem. The regulator could work together with research centres, universities and academic circles to develop research capacity that can be called upon to provide independent analysis to the NEB.** The Expert Panel should look to the OEB's use of independent consultants in its review of Energy East as a model.⁴⁵

6.0 Public Participation and the Hearing Process

EDC would like to note that the NEB Modernization process and Expert Panel itself has been criticized for the perception that it limits public participation and is captured by industry.⁴⁶ The Expert Panel's public engagement sessions were announced just three weeks before taking place, leaving stakeholders and Canadians with little time to prepare. The Expert Panel held engagement sessions in just 10 cities and did not hold sessions at all in three provinces and two territories. Funding to support public travel to the sessions was announced late and with little advertisement. Funding to support public and expert input was offered with little notice and rolled out slowly, cutting in half the amount of time advertised for expert submissions to the panel. EDC's proposal to develop its "Climate Test White Paper" was completed in just five weeks, rather than the eight that was planned in its proposal to the Modernization Secretariat.

When the engagement sessions were announced, the twelve discussion papers to inform the modernization process had not even been made available on the modernization panel's website. Public comment sent in email from to the Modernization Secretariat was initially prohibited. Only after complaints from EDC and other civil society organizations did the Secretariat reconsider and accept comments sent by email. The Toronto engagement session that EDC staff attended was not conducive to public participation, being held outside of downtown Toronto and removed from residential neighbourhoods and adequate public transit. The NED

⁴⁵ OEB, Energy East Consultation (2015)

⁴⁶ The Council of Canadians. (February 2017). Council of Canadians challenges National Energy Board modernization panel. Retrieved from <https://canadians.org/blog/council-canadians-challenges-national-energy-board-modernization-panel>.

Modernization process itself is indicative of the poor state of the NEB's public participation processes.

The Expert Panel also faced accusations of regulatory capture, with three of the five Expert Panel members having close ties to the oil and gas industry, including the former head of the Canadian Energy Pipeline Association.⁴⁷ From our perspective, the NEB modernization consultation process was rushed, non-inclusive, and inadequately resourced, which is inconsistent with a process that was billed as a way to restore public confidence in a regulator that faces a credibility crisis.

In the spirit of public participation, EDC would like to highlight the comments submitted to the Expert Panel by its supporters over the course of February and March 2017. As of March 31, 2017, 4,390 EDC supporters sent a message to the Expert Panel, calling for a 21st century regulator that is inclusive, evidence-based, transparent, and aligned with Canada's commitments to climate action and Indigenous reconciliation. The full text of submissions from EDC supporters is included in the Annex 1 at the end of this submission.⁴⁸

Public trust in the NEB has been undermined in recent years because of a perception that the regulator has been captured by industry while its decision-making processes have been politicized rather than based on evidence. EDC has participated as an intervenor in recent NEB pipeline review processes, and its experiences have left the impression that this perception is based at least in part in reality. If Canada's energy regulator is to make decisions based on evidence, free from bias and in a predictable, rigorous and inclusive way, then it is essential that the regulator's structures and review processes enable more meaningful public participation.

First, as mentioned above, the PFP should be reformed to build independent, internal capacity so that intervenors, the public and First Nations face fewer resource constraints and can participate more meaningfully in the energy project review process.

Second, the requirement that public participation in an energy project review process be limited to those who are "directly affected" is not necessary and should be eliminated immediately. Under current rules, a Canadian citizen concerned about a project cannot even write a letter to the NEB review panel and have the panel consider it. This is an unreasonable and arbitrary limit on public participation and reinforces the public perception of NEB non-inclusiveness.

⁴⁷ Environmental Defence. (November 2016). NEB "Modernization" Panel is stacked with pipeline industry insiders. Retrieved from <http://environmentaldefence.ca/2016/11/11/neb-modernization-panel-stacked-pipeline-industry-insiders/>

⁴⁸ Environmental Defence. (2017). Now's our chance to fix Canada's broken energy regulator. Retrieved from http://action.environmentaldefence.ca/p/dia/action3/common/public/?action_KEY=16769

Third, not only should all documents (studies, analyses, technical reports) submitted to the review panel be made available to the public and intervenors in a timely and accessible manner in both official languages, the raw numbers and data that underpin those documents should be made available. Whether it's been submitted by a consultant hired by the proponent, an intervenor, or a new body that provides the energy regulator with expert capacity, the methodology and data that underpins evidence presented during the hearing should be made public and be subject to review by all participants. When studies and technical reports are presented to the review panel as fact without providing the data, transparency is undermined and trust in the panel's decisions are eroded.

Fourth, the Information Request (IR) process in project hearings must be reformed. Currently, IRs are bureaucratic and lead to the proponent answering in writing with prepared messages. Filers of IRs are often not provided with the information the IR was supposed to produce and there is no mechanism for the review panel to force the proponent to provide an adequate response. This also undermines confidence in the review process. **The energy regulator should require all IRs to be answered adequately by the proponent in a timely manner during project reviews.**

Fifth, the review process should be reformed to allow intervenor cross-examination of the proponent. Currently, proponents can cross-examine intervenors, but not vice-versa. Proponents are allowed to respond to IRs with boilerplate prepared messages and they are free from cross-examination. Under this process, the review panel is unable to evaluate the merits of the arguments and evidence of all participants. This has the effect of weakening the quality of the project review. Intervenors and their experts should be empowered to cross-examine the proponent in public hearings.

Sixth, the arbitrary 15-month timeline for NEB reviews should be eliminated. NEB project review timelines should be proportional to the size of the project. While all parties have an interest in an expeditious hearing process, it should not come at the expense of the quality of information presented to and analyzed by the review panel. In some cases, for smaller projects, it is reasonable for the review to be much shorter than 15 months. In other cases, such as Energy East, a 28,000-page application for a project that spans most of the country, a set deadline to finish the review is problematic. With nearly 400 intervenors across six provinces, a review process deadline puts the review panel, the proponent and intervenors in the position of rushing to file and respond to IRs, prepare expert evidence, read the hearing proceedings, and analyze changes to the application. It could have the effect of weakening the quality of the review and even create controversy and distrust that further delays the review, as happened in the review of the Kinder Morgan Trans Mountain Expansion.⁴⁹

⁴⁹ Calgary Herald. (September 2015). NEB extends Trans Mountain Pipeline decision deadline by four months. Retrieved from <http://calgaryherald.com/business/energy/neb-extends-trans-mountain-pipeline-decision-deadline-by-four-months>.

Seventh, the energy regulator should provide to all participants one consolidated, updated version of the proponent’s application in an easily-accessible, searchable format in both official languages. For project reviews that span years and include numerous modifications, it becomes increasingly difficult to read, analyze and track changes to the application. This adds further constraints on participants already affected by limited funding and availability of experts. For particularly long applications, the NEB should require the proponent to provide summaries of sections of the application.

Regarding public participation, the Expert Panel should look to the Ontario Energy Board (OEB) review of Energy East in 2015 as a model.⁵⁰ The process involved public and stakeholder sessions in communities throughout Ontario along the pipeline route, expert reports prepared for the OEB by independent experts, and online submission of comments from the public. It also responded to public demands for a GHG assessment of Energy East, once the topic came up frequently at public sessions.

7.0 Conclusion

EDC appreciates the opportunity to participate in the NEB Modernization process and would like to thank the Expert Panel and the Modernization Secretariat for their work in administering this process. We look forward to reviewing the Expert Panel’s report to the Minister of Natural Resources in May 2017 and engaging in the next steps of the process to ensure NEB Modernization results in an energy regulator that restores confidence in the public and meets the demands of the 21st century.

If the Expert Panel has any questions about this submission, please contact me at pderochie@environmentaldefence.ca or 416-323-9521 x.248.

Sincerely,



Patrick DeRochie
Climate & Energy Program Manager,
Environmental Defence Canada

⁵⁰ OEB Energy East Consultation

Annex 1: Comments from 4,390 EDC supporters to the NEB Modernization Expert Panel

Supporters of EDC participated in NEB Modernization by submitting the following message to the Expert Panel. Submissions from EDC supporters also included 221 individual responses.

Subject: Fix the broken pipeline review process

I urge you to take this opportunity to build a 21st century regulator that's inclusive, evidence-based, transparent, and aligned with Canada's commitments to climate action and Indigenous reconciliation.

The review and regulation of energy infrastructure should be subject to a climate test that aligns major energy projects with Canada's climate commitments.

Environmental assessments should be conducted by a revamped federal environmental assessment agency with the necessary expertise to evaluate a project's regional impacts.

A modernized energy regulator should produce higher-quality Canadian energy data that links energy regulation and climate objectives, including oil and gas supply and demand scenarios in line with the Paris Agreement. If an energy project is out of step with Canada's climate commitments, it should be rejected.

The energy regulator should also take all steps necessary to ensure inclusiveness, transparency, and impartiality in all of its processes, from governance to decision-making to project review to monitoring. This includes the full participation of Indigenous communities, in line with the federal government's commitment to Indigenous reconciliation.

Canadians have lost confidence in the NEB. The federal government promised to fix the NEB. It's crucial that we get it right.

Annex 2: Climate Test White Paper – Executive Summary

Public interest groups, governments and other key stakeholders have highlighted the need for a “climate test” to be included in the assessment of new major energy infrastructure projects. Long-lived energy infrastructure projects can affect Canada’s greenhouse gas (GHG) emissions for decades after their construction; hence, they can have a consequential impact on Canada’s ability to achieve its climate policy objectives and commitments.

A climate test would check a project’s climate impact against Canada’s climate commitments and other relevant benchmarks, and would assess the project’s economic viability in a carbon constrained future. There are currently no strong links between energy project assessment and climate policy. The modernization of the National Energy Board (NEB) provides a unique opportunity to explore and identify how a climate test could be incorporated into the assessment of energy projects to better align with climate policy and the public interest of Canadians.

To develop recommendations for the NEB Modernization Expert Panel on integrating a climate test into the evaluation of major energy infrastructure projects, we reviewed the latest literature and conducted primary research via interviews with a select group of experts. Below we provide our main conclusions followed by specific recommendations.

Based on the evidence revealed by this research, we reached the following conclusions.

- The lack of a climate test puts Canada’s climate change commitments at risk and poses a major business risk for project proponents
- A climate test needs to address both the emissions and economic dimensions of assessing major energy infrastructure projects and other proposals
- The economic part of a climate test can help to capture the downstream impacts of a project by considering fossil fuel supply and demand in a carbon constrained world
- A climate test needs to be applied beyond projects that fall within the NEB’s mandate to a wide range of proposed projects, programs, and policies.
- There is an urgent need to separate climate policy discussion from the individual project assessment process
- Achieving consensus on the final design of a climate test and how and where it should be applied requires further consultation and dialogue
- A major bottleneck in the development of a climate test is the lack of a comprehensive carbon budget allocated at the economic sector level
- The lack of an overarching integrated Canadian energy and climate change strategy is a key barrier to federal-provincial alignment on climate policies, programs, and tools (e.g., a climate test) as well as a challenge for the NEB

- Federal-provincial alignment is critical for both the development of carbon budgets and establishing procedures for the application of the climate test to the full range of policies and programs that affect Canada’s current and future GHG emissions

This white paper was limited by available time and resources, however it resulted in the following recommendations supported by the research and informed by expert opinion.

1. Include a 2-part Climate Test in the Evaluation of Major Energy Projects

Part 1: Include a climate test based on the economic viability of energy projects in a carbon constrained world.

This test would determine if the project is economically viable in a carbon constrained world. For a project to be economically viable, the long-run market price for the products it produces, refines or transports (e.g., oil or other fossil fuels) needs to exceed its long-run cost of production. This part of the test would be based on best available global energy-economy-emissions models that include the future price of carbon and future supply and demand for oil and other fuels. This test “fits” within the existing NEB mandate, but it requires a broader analysis of economic viability that considers market constraints and the effects of domestic and international climate policy on the price of fossil fuels and production costs, among other factors. For example, for crude oil pipelines, the test could be applied as part of the *National Energy Board Act’s (NEB Act)* provisions related to the existence of markets and economic feasibility assessment (section 52-2 b-c).

Part 2: Include a climate test based on carbon budgets.

This test would determine if the project fits within a pre-defined carbon budget. An example is provided in Figure 3. This test requires a determination of national and sector carbon budgets in line with Canada’s 30 per cent GHG emissions reduction target by 2030 (from a 2005 base year), as well as the Paris commitment to limit global warming to 2 C and strive for 1.5 C. This test would be conducted outside the NEB at a strategic level, perhaps within a revised environmental assessment process or at a political level where broader stakeholder interests and sustainability impacts and benefits are evaluated.

2. Refine the Climate Test via a Stakeholder Workshop or Forum and Ongoing Process.

This white paper was prepared in a very short period of time (five weeks). However, we believe the literature reviewed and the expert opinion gathered for this report provide a high level of confidence in the value of a climate test for projects within the NEB mandate and beyond. The design principles and main structure of the test are also reasonably clear. What is also clear is designing and applying an effective

climate test that has the buy-in of key stakeholders is a challenge that requires a variety of skills and expertise. To build on work to date and to achieve the level of detail necessary to agree on the final design of a climate test and its application, we strongly recommend a climate test workshop be held with leading experts and key stakeholders to focus on the development, design, adoption, implementation, and application of a climate test.

3. Put in Place Resources to Ensure the Climate Test Succeeds.

Effectively incorporating a climate test within and/or outside the NEB will require new and existing data to be gathered and integrated into decision making processes. This will require human and financial resources and possibly new processes and decision support tools. It will be necessary to develop a detailed implementation plan that identifies the primary outcomes, accountable organizations and managers, resources, training needs and other information required to effectively execute a climate test. We recommend that these details be addressed in conjunction with the finalization of the test.

4. Develop an Overarching Integrated Energy and Climate Change Strategy

The lack of an overarching integrated Canadian energy and climate change strategy is a key barrier to federal-provincial alignment as well as a challenge for the NEB. The pan-Canadian framework on clean growth and climate change was noted by several experts as an important step toward a national climate change strategy but more detail is needed to ensure policies and projects align with climate science, and that the commitments of the federal and provincial governments meet Canada's obligations under the Paris Agreement. Such a strategy should address the development, application, and review of the carbon budget portion of the climate test and it should include necessary actions to drive innovation on energy sources and technologies that reduce the overall carbon intensity of the economy.

Annex 3: Summary of Recommendations from Environmental Defence Canada

- EDC recommends that the NEB undergoes a legislated review every five to ten years, in line with the latest scientific evidence in climate change, energy technology, global energy markets, environmental protection, and other applicable fields.
- We recommend that the Expert Panel works closely and shares information with the other expert bodies overseeing the review of Canada’s environmental and regulatory laws and processes, including the review of Environmental Assessment (EA) processes, the review of the *Navigation Protection Act*, and the review of the *Fisheries Act*. EA reform and NEB modernization are inextricably linked, and the two expert panels, as well as legislators that are implementing the recommended reforms, should have formal processes for sharing information.

NEB Governance

- The requirement that NEB Board members be located in the Calgary region should be eliminated immediately.
- Board members should be diverse, reflecting Canada’s regional, linguistic, and ethnic diversity, and include Indigenous representation.
- The background and expertise of Board members should be expanded to include the following fields:
 - Climate change
 - Climate science
 - Community Development
 - Decarbonization
 - Emerging technologies, such as smart grids, energy storage, and electric vehicles
 - Energy emissions modeling
 - Energy and electricity markets
 - Indigenous law, governance, environmental monitoring and consultation
 - Renewable energy
 - Sustainable building
 - Understanding of public interest and public participation
- People with expertise and experience in the oil and gas industry should still be eligible for Board membership, but they need to be clearly disconnected from conflicts of interest.

- Board members assigned to specific energy review panels should come from the regions affected by the project.
- Board members and NEB staff should be given mandatory training on climate change, including carbon budgets, international climate agreements and provincial and national commitments to reduce emissions in Canada.

Mandate, Regulatory Framework, and Decision-making Roles

Strategic Environmental Assessments

- EDC recommends legislative solutions that leverage the strengths, expertise and core competencies of existing regulatory agencies. We also recommend legislative and policy change that creates an efficient energy planning and project review process that enhances sustainability, democratic and evidence-based decision-making, and public confidence, while more broadly considering the public interest and Canada’s climate commitments.
- The NEB must not be the government institution leading EAs. If the federal government puts in place an inclusive, transparent, evidence-based SEA framework, then the NEB is well suited to continue playing its traditional role of evaluating the technical details of proposed energy infrastructure.

Needs Assessment

- The needs assessment is a vital part of an energy project review and specialized experts at the NEB should continue to conduct the needs assessment test. However, the requirement in section 52(2)(e) of the *NEB Act* that the NEB considers “public interest” should be removed from the legislation.
- EDC recommends that the *NEB Act* be amended to explicitly require that domestic and global climate commitments underlie the NEB’s market analysis and needs assessment modeling.

Final Decision-Making on Energy Projects

- It is less important *who* makes the decision, but rather *how and why* the decision is made. The objective must be to make energy regulation and energy project review credible in the eyes of the public and require transparency, accountability and evidence in final decision-making to de-politicize the process as much as possible.
- If the federal Cabinet is to retain final decision-making powers, then it must be required by law to explain to Canadians how and why the decision was made, defending the process it followed, making public the evidence it

weighed during that process, and referring directly back to evidence and recommendations made during the review process in explaining the decision.

Future Decommissioning of Projects

- The NEB should develop a database and map of abandoned oil and gas wells and track the costs of tar sands project decommissioning.
- NEB modernization should include legislative amendments to guarantee industry funding will be available for decommissioning and remediation work.

Energy Data Collection

Climate Change and Greenhouse Gas Emissions

- Energy projects should be subject to a climate test, a process that ensures that the regulation and review of energy projects supports, rather than compromises, Canada's domestic and international climate commitments. The *NEB Act* should be amended, in its preamble and all other sections, to recognize the relationship between climate policy and energy projects, Canada's legislated domestic and international climate commitments, and the inseparable role of energy infrastructure in meeting these commitments.
- EDC recommends that project EAs assess upstream and direct GHG emissions, relative to legislated climate commitments at the provincial and federal level. The *CEEA* should be amended to explicitly reflect this "climate test".
- Once a reliable climate test is put in place, a proposed energy project that would result in incremental upstream and direct emissions that are higher than potential alternatives to the project or would hinder the achievement of Canada's climate commitments, should be rejected outright by the revamped EA authority, before the NEB's technical review begins.

NEB Modernization and current proposed pipelines

- The Expert Panel should acknowledge that new pipelines should be subject to a review by a modernized national energy regulator, not the flawed NEB review process that the Panel has been mandated to fix.

Global Energy Supply and Demand Forecasting

- EDC recommends that the NEB develop technical capacity to catch up to its peer institutions and produce additional energy statistics and modeling that is consistent with the implementation of the Paris Agreement.

Emerging Energy Trends and Markets

- EDC recommends that the NEB begin producing standardized national and provincial information about clean technology, energy storage, renewable energy, power lines, regional energy systems, grid modernization, electricity demand scenarios, electric vehicles, inter-provincial and international energy exchanges, and emerging market trends.

Oil-by-Rail

- The NEB should work with Statistics Canada, Transport Canada and the Transportation Safety Board to establish a process to enhance and consolidate the collection of data about crude-by-rail movements. The Expert Panel should look to the U.S. EIA as a model.

Indigenous Engagement and Consultation

- EDC recommends that the federal government follow through on its commitment to Indigenous reconciliation and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), including the right to Free, Prior and Informed Consent for projects on traditional Indigenous lands. The NEB Modernization process and the federal government's work on energy regulation and natural resource management in Canada should be conducted in the spirit of reconciliation with Indigenous Peoples.
- In accordance with the Truth and Reconciliation Commission,⁵¹ NEB Board members should be provided with education in the history of Canada's Indigenous Peoples, including the history and legacy of residential schools, UNDRIP, Treaties and Aboriginal rights, Indigenous law, and Aboriginal-Crown relations.
- A modernized energy regulator should also address the current adversarial nature of NEB proceedings by engaging Indigenous Peoples as partners rather than obstacles. An energy regulator can work with Indigenous groups to develop a common set of baseline information upon which to base decisions on major energy projects.

The NEB's Participant Funding Program

- The NEB should directly increase the amount of PFP funding available to participants in project reviews.

⁵¹ Truth and Reconciliation Commission of Canada. (2015). Calls to Action. Retrieved from http://www.trc.ca/websites/trcinstitution/File/2015/Findings/Calls_to_Action_English2.pdf

- EDC recommends the capacity the energy regulator itself be enhanced to develop independent, evidence-based expert advice and provide it to project reviews. The regulator could work together with research centres, universities and academic circles to develop research capacity that can be called upon to provide independent analysis to the NEB.

Public Participation and the Hearing Process

- The PFP should be reformed to build independent, internal capacity so that intervenors, the public and First Nations face fewer resource constraints and can participate more meaningfully in the energy project review process.
- The requirement that public participation in an energy project review process be limited to those who are “directly affected” should be eliminated immediately.
- Not only should all documents (studies, analyses, technical reports) submitted to the review panel be made available to the public and intervenors in a timely and accessible manner in both official languages, the raw numbers and data that underpin those documents should be made available.
- The Information Request process in project hearings must be reformed. The energy regulator should require all IRs to be answered adequately by the proponent in a timely manner during project reviews.
- The review process should be reformed to allow intervenor cross-examination of the project proponent.
- The arbitrary 15-month timeline for NEB reviews should be eliminated. NEB project review timelines should be proportional to the size of the project.
- The energy regulator should provide to all participants one consolidated, updated version of the proponent’s application in an easily-accessible, searchable format in both official languages.