

2017-18

Annual Report to Parliament

National Energy Board



National Energy
Board

Office national
de l'énergie

Canada

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Suite 210, 517 Tenth Avenue SW Calgary, Alberta T2R 0A8

E-Mail: publications@neb-one.gc.ca

Fax: 403-292-5503

Phone: 1-800-292-4800

1-800-899-1265

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Bureau 210, 517, Dixième Avenue S.-O. Calgary (Alberta) T2R 0A8

Courrier électronique : publications@neb-one.gc.ca

Fax : 403-292-5503

Téléphone : 1-800-292-4800

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Message from the Chair and Chief Executive Officer

The National Energy Board (NEB) is Canada's federal energy regulator. Preventing harm is at the heart of what a regulator does. People count on us to keep them safe, to protect the environment, to prevent market inefficiencies and to listen to what they have to say so that we can make informed decisions and recommendations in the Canadian public interest.

We do this using a systemic approach (looking not only at individual company performance, but the performance of the industry as a whole), based on evidence, input and data, and all the while committed to delivering effective and efficient regulatory oversight. We share information and operate transparently in order to maintain public confidence in the regulatory process. This Annual Report – the first that relies upon our new performance framework – is intended to ensure Canadians have the information they have told us they want to have about the performance of the industry we regulate, and about our performance as a regulator.

The greatest asset the NEB has is the sum of our experience and what we learn from working with Canadians: what we know and learn from our analysis of the root causes of past incidents; the trends and issues we see in the data we hold about our performance and the performance of industry; our understanding of the systemic issues and “big picture” of Canada's energy system; and the views of Canadians about what is of concern to them, and how we can do our job better.

How we use that asset makes a difference – including sharing and discussing that knowledge with Indigenous Peoples, communities, industry, and with other regulators both in Canada and internationally. Most of all, we apply that asset to continually improve our regulatory framework, requirements and performance in the service of Canadians.

Over the past year:

- Pipeline hearing activity remained high, with a lot of public participation in the Trans Mountain Expansion Project (TMEP) detailed route and land acquisition processes, including alternative dispute resolution processes;
- Incidents that harm people or the environment in our regulated activity continued to be a concern – especially because they are often linked to issues related to worker safety associated with the increase in major pipeline construction activity, which is underway;
- There was a good deal of public and stakeholder interest in the NEB's new and innovative energy information products, including new data visualization and pipeline information products; and
- There continued to be a high level of engagement by and with our regional offices, with new engagement forums and commitments made to support initiatives such as the Indigenous Advisory and Monitoring Committee (IAMC), the Land Matters Group (LMG), and the new Municipal Roundtable.

There is a lot to be proud of in the work done by Canada's regulator last year, and there are a number of areas where we know there is more work to do. Under a mandate from the Prime Minister, Natural Resources Canada conducted a review of the NEB's structure, role, and mandate in order to strengthen the regulatory process and ensure that Canada continues to have a modern, efficient and effective regulator. In early 2018, the Government introduced Bill C-69: An Act to enact the Impact Assessment Act and the Canadian Energy Regulator Act. Among other measures, this proposed legislation introduces a new impact assessment system and a new Canadian Energy Regulator.

The NEB welcomes measures that strengthen our regulatory framework and support our transformation to a robust and modern regulatory regime. We have been mindful of this opportunity in work we have undertaken. Implementing our Departmental Results Framework, utilizing data more strategically and sharing it openly, and forging new ways of working with Indigenous communities through the Indigenous Advisory and Monitoring Committees, has helped prepare us to respond to change and quickly adapt to the legislative changes that modernization will bring to the Canadian energy landscape.

There has never been a better time to work at the NEB, and I am proud to work alongside Board Members and staff who take the role and responsibility of being Canada's energy regulator so seriously, and who are so committed to the continual improvement of our regulatory oversight.

As you read this report, and perhaps take a further opportunity to review the more detailed performance information on our website, we hope you will appreciate our efforts to be transparent, balanced and open, and consider our invitation to engage with us to improve how we do our work. Let us know what you think, and if you have ideas on how we can make our future reports better. You can reach us by email, call, tweet or in-person at the contact information listed in this report or on our website.

On behalf of the National Energy Board and its Members, I respectfully submit to Parliament and provide to Canadians the 2017-18 National Energy Board Annual Report.

Sincerely,

C. Peter Watson, P. Eng., FCAE
CHAIR AND CHIEF EXECUTIVE OFFICER
NATIONAL ENERGY BOARD

Canada's Energy Transportation System

Energy is a key contributor to Canada's economy. In 2016, the energy sector was responsible for 884,000 jobs or nearly 5% of total Canadian employment. The energy sector also drove \$187 billion or nearly 10% of nominal Gross Domestic Product (GDP). In addition, energy accounts for a significant portion of Canadian trade, including \$86 billion of exports in 2016 or roughly 18% of total Canadian merchandise exports*.

*SOURCE: [HTTP://WWW.NRCAN.GC.CA/ENERGY/FACTS/ENERGY-ECONOMY/20062](http://www.nrcan.gc.ca/energy/facts/energy-economy/20062)

<p>884,000 Energy Sector Jobs in 2016</p>	<p>9.9% of Canada's GDP or \$187 Billion</p>
--	--

Canada's energy system is also integral to the broader economy, as it enables the production and delivery of goods and services, and is a key driver of research, development, and innovation. The energy system touches all aspects of our daily lives, from running our vehicles to heating our homes and powering our electronics.

The NEB regulates critical elements of Canada's energy system, including 85 international power lines comprising 1,462 km. Most Canadian power lines fall within provincial jurisdiction because roughly 90% of the electricity produced in Canada is consumed domestically. However, international demand for Canadian power – which is mostly generated from renewable sources – is expected to increase in coming years. If so, the NEB's regulatory role in electricity will also increase.

 **Canadian non-hydro renewables (solar, wind, and biomass):**

2005: 2% of total power capacity
2016: 12% of total power capacity



Canadian crude oil production in 2017:
>4 million barrels per day



Canadian natural gas production in 2017:
>15 billion cubic feet per day

FIGURE 1
NEB-regulated Pipelines



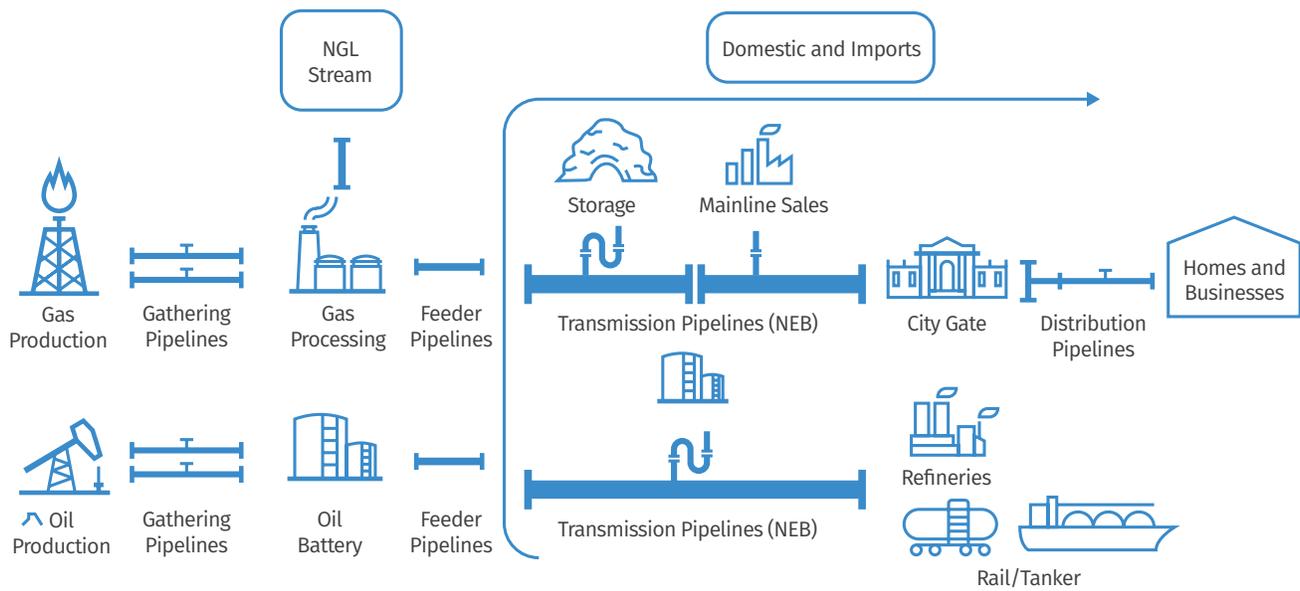
The NEB also regulates 72,126 km of pipelines, or roughly 10% of the total length of pipelines in Canada. If a pipeline crosses provincial or international boundaries, it is regulated by the NEB. If a pipeline system is contained within a province, it is generally under the jurisdiction of a provincial regulatory authority (e.g. pipelines located solely in British Columbia are regulated by the BC Oil and Gas Commission; those in Quebec are regulated by a number of provincial entities, including le Régie de l'énergie du Québec.)

NEB-regulated pipelines transport about 45 Petajoules of petroleum products per day.

Canada is the sixth largest producer of oil in the world, accounting for nearly 5% of total global supply. We are also the fifth largest producer of natural gas in the world, producing more than 4% percent of global supply.

The majority of products were transported by NEB-regulated pipelines from production areas in Western Canada to consumers elsewhere in Canada or the United States.

FIGURE 2
Pipeline System Overview



Low commodity prices have significantly changed the economics of the energy sector since 2014, but NEB-regulated pipelines continued transporting roughly \$100 billion of energy products during each of the last few years.

On a longer time horizon, future pipeline utilization and investment will be influenced by any sustained trends in energy supply, demand, and pricing. These will in turn be affected by factors such as technology, consumer preferences, and public policy. Developments in Canada's electricity sector, which has been trending away from coal toward increased generation from natural gas and non-hydro renewables, will also play a key role.



Role of the NEB in Canada's Energy Transportation System

The mission of the NEB is to regulate pipelines, energy development and trade on behalf of Canadians in a way that protects the public and the environment while supporting efficient markets. We do this using a whole-system approach based on evidence, data and feedback. The NEB's Departmental Results Framework articulates the outcomes that we are responsible for under our mandate in four areas:

Energy Adjudication

Energy adjudication processes are fair, timely, transparent and accessible.

When we assess a project application—large or small—our job is to study all aspects of the proposed project, identify potential issues and social, economic and environmental impacts, and make a decision or recommendation about whether a project is in the public interest. We will, as part of that process, assess what regulatory tools would be necessary to prevent potential harms from occurring e.g., examining the existing strict regulatory compliance requirements for any activity and identifying if additional specific conditions for the project would be necessary. We will also ensure individuals and groups have access to funding to participate in a hearing, subject to the provisions of our Participant Funding Program.

Safety and Environmental Oversight

Harm to people or the environment, through the lifecycle of energy-related infrastructure, is prevented.

During regulation over the entire lifecycle of energy infrastructure, every activity – from site inspections to management system audits to emergency response evaluation exercises to the development of new regulations – is focused on identifying potential sources of harm and taking action to prevent it. We impose strict obligations on regulated companies to ensure regulated activities are safe, and harm is prevented. We view our regulatory oversight through a series of critical lenses - compliance and enforcement, management systems, and safety culture – that guide our approach to regulatory oversight and excellence.

We track company performance, regulatory actions, the consequences and results of those actions, the trends demonstrated year-over-year, industry performance as a

whole, and the health of our energy systems. That data is invaluable information that enables analysis of where, why and how harms (incidents) and potential harms (near misses, non-compliances, etc.) occur, and enables the NEB and industry to take action to prevent them.

Energy Information

Canadians have access to and use energy information for knowledge, research and decision making, access to community-specific NEB-regulated infrastructure information, and opportunities to collaborate and provide feedback on NEB information products.

We study market trends, energy transportation, and emerging technologies to better understand the energy landscape in which we work, to provide Canadians with energy information of interest and relevance, and to identify and respond to emerging issues. We provide transparent information about pipeline safety performance, and use tools like interactive pipeline maps and visualizations of our data to make complex pipeline and energy market data user-friendly and accessible.

Engagement

Stakeholders and Indigenous Peoples share their perspectives and provide feedback regarding the NEB's mandate and role, and NEB engagement activities with stakeholders and Indigenous Peoples are meaningful.

Our Indigenous and public engagement programs enable us to better understand and incorporate diverse knowledge, viewpoints and interests in our work, and to continually improve our regulatory activities based on feedback and learnings from Canadians and Indigenous communities.

In each of these four areas, we monitor and report on our performance against the high level outcomes, as well as track and monitor performance in the specific programs that fit under each core responsibility. This Annual Report highlights performance in each area, and additional detailed program performance information for 2017-18 is available on the NEB's website.

The NEB also has a number of internal service programs that are critical to support the delivery of our mandate. A detailed account of our spending and performance across all core responsibility areas and internal services is provided in our annual Departmental Results Report. For an overview of our financial results, please see Appendix H.

Energy Adjudication

The NEB makes decisions or recommendations to the Governor in Council on applications, which include environmental assessments, using processes that are fair, transparent, timely and accessible. These applications pertain to pipelines and associated facilities, international power lines, tolls and tariffs, energy exports and imports, and oil and gas exploration and drilling in certain northern and offshore areas of Canada.

Our Commitment

Energy adjudication processes are fair, timely, transparent and accessible.

Adjudication Activity in 2017-18:



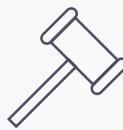
689

Applications Received



670

Decisions or Recommendations Issued



657

Adjudication Outreach Activities Conducted



543

Early Engagement Activities with Indigenous People Conducted



8

Oral Traditional Evidence Sessions Held

FIGURE 3
Number of Active Hearings by Type in 2017-18*



● Detailed Route: 1

From 2012-13 to 2016-17, the NEB held one Detailed Route Hearing adjudication process. In 2017-18, we held 123.

● Large Pipeline Facilities: 2

● Power Line Certificates: 1

● Small Pipeline Facilities: 5

● Tolls and Tariffs: 7

● Abandonments: 8

● Powers of the Board and Variances: 4**

● Long Term Export Licence: 1

* SEE APPENDICES B AND C FOR MORE DETAIL ON HEARINGS

** THESE HEARINGS MAY INCLUDE MATTERS SUCH AS JURISDICTIONAL APPLICATIONS, AND VARIANCES AND TRANSFERS OF CERTIFICATES, LICENCES AND PERMITS

PERFORMANCE RESULTS

Energy Adjudication

Percentage of adjudication decisions overturned on judicial appeal related to procedural fairness.

TARGET	RESULT 2016-17	RESULT 2017-18
0%	0%	0%

Within our adjudicative processes, we seek to ensure we make decisions and recommendations according to the law, adhering to the principles of procedural fairness. This is extremely important to us - making sure everyone who has a right to be heard is heard, and that evidence is tested and examined as part of our record and processes. There have been a number of court challenges to our decisions recently, and in 2017-18, none have been overturned on matters related to procedural fairness.

In July 2017, the Supreme Court of Canada's (SCC) Hamlet of Clyde River decision found that the Crown did not meet its duty to consult in relying on the NEB process in that instance. Procedural fairness is an administrative law requirement which is significantly different than the Crown's duty to consult. Nonetheless, the SCC decision highlights a clear need for enhanced consultation and engagement with Indigenous communities in (as well as outside of) our adjudication processes, and we are taking active steps to improve.

Percentage of adjudication decisions and recommendations that are made within legislated time limits and service standards.*

TARGET	RESULTS 2016-17	RESULTS 2017-18
100%	100%	100%

While our overall time limits and service standard targets are being met, some processes are taking longer. We missed service standard target dates on a few processes which put at risk, but did not compromise, our ability to meet our overall performance targets. Nonetheless, we know that ensuring we have timely and efficient adjudication processes is very important, and we are taking steps to examine ways to improve our efficiency including ways to enhance early engagement and issues resolution.

*SERVICE STANDARDS PUBLICLY STATE THE LEVEL OF PERFORMANCE CITIZENS CAN REASONABLY EXPECT TO ENCOUNTER FROM THE NATIONAL ENERGY BOARD UNDER NORMAL CIRCUMSTANCES. PLEASE SEE APPENDIX D FOR MORE INFORMATION ON SERVICE STANDARDS.

Alternative Dispute Resolution

The Trans Mountain Expansion Project Detailed Route Application has generated an increase in both volume and complexity of hearing-related processes related to agreements on the pipeline right-of-way, Right of Entry applications, and other detailed route issues.

On other pipeline infrastructure systems, construction and maintenance activity is resulting in a high volume of landowner complaints, and in particular, complaints related to Indigenous concern about the protection of heritage resources. Construction activity remains high moving into 2018-19, and we expect a matching increase in the volume of construction-related regulatory processes.

The NEB aims to deliver timely decision-making and efficient processes while ensuring that landowners, municipalities and Indigenous groups are able to participate in those processes in a way that works for them, addresses their needs and transparently reflects their concerns.

The NEB is actively using tools such as Alternative Dispute Resolution (ADR) and early engagement. ADR is a collection of processes and techniques that can be used to reach resolution of issues as an addition to a traditional regulatory approach. It is a voluntary, interest-based, and confidential way for landowners, Indigenous Peoples, and other land users to resolve disputes with NEB regulated companies, allowing the NEB to understand perspectives and concerns, and take action to address them early on in a process, ideally outside of formal adjudication processes. Outcomes from ADR are very positive and show that interest-based, win/win solutions are possible.

Using Alternative Dispute Resolution to improve outcomes on Trans Mountain Expansion Project route hearings

The TMEP Detailed Route application has resulted in conducting 123 individual hearings for affected landowners and Indigenous groups. The NEB responded to this demand for dispute resolution with focused outreach to offer Alternative Dispute Resolution services. NEB hearing process advisors and ADR specialists called all landowners and Indigenous groups who were to participate in a hearing to discuss the hearing process and offer alternative dispute resolution services.

As a result of that outreach, the NEB mediated 55 individual meetings between the parties and the company, in a way that was collaborative, respectful and considerate of differing perspectives. We received feedback from many participants that the meetings were not only helpful in resolving the current disputes but contributed to resetting the relationship between the parties going forward.

Of the Detailed Route Hearing processes that were cancelled due to withdrawal of objections, ADR contributed to having 90% settled outside of formal adjudication processes.

“We found that the use of alternative dispute resolution significantly reduced the number of hearings that were necessary to resolve disputes on the detailed route. Successful mediation requires early outreach with parties and coordination with the company. Outcomes from ADR are very positive, where interest-based, win/win solutions are possible.”

Darcy Johnson, TMEP Hearing Manager

“I just wanted to express my appreciation for the manner in which the NEB ... really demonstrated the right approach to provide a supported environment where we can have open and productive sessions trying to get to agreement...”

ADR Participant, TMEP

Percentage of surveyed participants who indicate that adjudication processes are transparent.

TARGET	RESULTS 2016-17	RESULTS 2017-18
75%	79%	88%

While the NEB’s targets for transparency are being achieved, we are not yet satisfied that we are doing enough to reach our desired outcome. Results from the NEB’s post-hearing participant surveys indicate that the vast majority of respondents felt that the NEB provided opportunities to participate, that hearing documents were clear and transparent, and that they could see their views reflected in the decisions, which was key to feeling the hearing decision was transparent. Participants, however, did not feel the NEB made it easy to access hearing documents through our website.

Percentage of surveyed participant funding recipients who agree that participant funding enabled their participation in an adjudication process.

TARGET	RESULTS 2016-17	RESULTS 2017-18
90%	92%	94%

The percentage of applicants who are satisfied with the service provided by the NEB in its Participant Funding Program remains high. Last year, we surveyed participants and feedback was generally positive and constructive in helping guide annual program improvements. We also made changes last year to our management practices in this area, resulting in an increase in the timeliness of the release of funding decisions. We know that more can be done to continually improve the program, however, and are committed to doing it.



Performance Summary for Energy Adjudication and Next Year’s Focus

While we met our high-level performance targets in this core responsibility area, we also recognize more work is needed in key areas:

- We will continue our efforts to enable meaningful and culturally appropriate Indigenous participation in our hearings and processes to ensure and maintain procedural fairness in decision-making.
- We will focus on timeliness and transparency in our adjudication processes, ensuring we are efficient and effective.
- We will enhance our support to Alternative Dispute Resolution and other issues resolution activities, including enhanced early engagement in processes, as in this past year they have proven very successful in increasing the timeliness and accessibility of our processes to meet the needs of landowners and Indigenous groups.
- We will continue to assess the impact and efficiency of our Participant Funding available for participants in our processes.



Safety and Environmental Oversight

The NEB sets and enforces regulatory expectations for National Energy Board-regulated companies over the full lifecycle—construction, operation and abandonment— of energy-related activities.

Our Commitment

Harm to people or the environment, through the lifecycle of energy-related infrastructure, is prevented.

The NEB takes a three-tiered approach to preventing incidents that harm people or the environment:

- **Transactional** — risk informed compliance verification activities
- **Systemic** — management system improvement to control risks and hazards
- **Cultural** — influencing Safety Culture and the human factors that are foundational to reducing incidents

Safety and Environmental Oversight Activity in 2017-18:

301 Compliance Verification Activities, including:



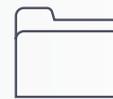
12

Emergency Management Exercises



147

Inspections



8

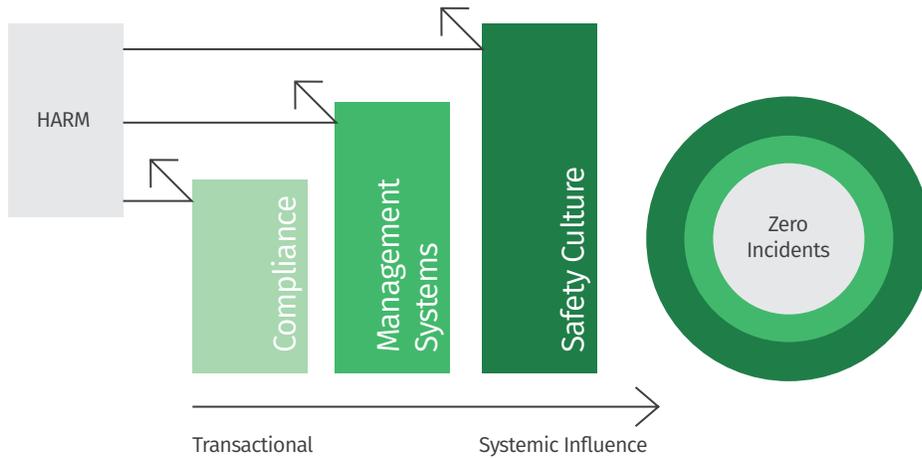
Management System Audits



4

Financial System Audits

FIGURE 4
Preventing Harm



First, we undertake risk-informed Compliance Verification Activities (CVAs) to determine company compliance with regulatory requirements. Compliance is a snapshot in time and although it is a necessary defense against harm, it is very transactionally focused. It does give us company specific data that informs our risk models and identifies where compliance oversight is the most effective and highest probability to prevent harm. Based on the risk-informed model we have also increased CVAs that would contribute to reducing worker safety incidents. CVAs include technical areas of security, environmental protection, pipeline integrity, safety management, emergency management, security management, damage prevention, rights and interests, and financial regulations.

The NEB has established a comprehensive framework to ensure pipeline companies have the funds required to safely abandon their facilities when it is time to do so. All NEB-regulated companies either have a financial instrument on file with the NEB for the full amount of their abandonment cost estimate, or have established a trust where money is set aside to fund future abandonment work. This way, the NEB, landowners, Indigenous communities and the Canadian public can be assured that sufficient funds will be available to conduct abandonment work while protecting the environment and the safety of people. To learn more, please see Appendix G, or visit our Company Performance information at neb-one.gc.ca.

Secondly, Management Systems are a key defense against harm and go beyond transactional compliance. Companies are required by NEB regulations to have a management system that identifies and controls hazards and risks. We look for data and trends in incidents and non-compliances to focus our efforts on improving management systems via controls that fix the root causes and mitigate the hazards. We work with a broad range of stakeholders to identify and continually improve regulatory requirements for companies in terms of their management systems, and we audit companies with respect to their compliance with these requirements.

Third is influencing Safety Culture and ultimately industry performance. A company that has a strong safety culture scrutinizes every decision to ensure the risks are managed and harm is prevented. The NEB does not regulate safety culture but we do expect companies to promote a positive safety culture. We also exercise influence by collecting, analyzing and sharing industry wide data and information and to identify learnings related to safety culture that we share formally and informally.

Working with Industry to advance Safety Culture

The NEB is committed to strengthening and improving industry wide performance as well as our own performance in the area of Safety Culture. In February 2018, the NEB hosted a safety culture workshop with a number of regulated companies. This pilot initiative was developed to promote a culture of learning and sharing across industry, and between the NEB and its regulated-companies.

Conversations throughout the day focused on challenges, successes, and best practices in the advancement of a positive safety culture to improve safety and environmental outcomes across industry. Feedback from attendees confirmed that the workshop was a valuable experience for participants overall and demonstrated the NEB's commitment to working with operators to improve safety culture. The workshop also allowed the NEB to understand our effectiveness in promoting the importance of safety culture, including looking at how our own oversight culture may be impacting industry efforts.

“To positively influence safety culture, we must consider how our organization’s values affect our decision-making and behaviors. This workshop was a great opportunity to understand and reflect on our internal culture for regulatory oversight.”

Keith Landra, NEB Chief Safety Officer

PERFORMANCE RESULTS

Safety and Environment Oversight

Number of incidents related to National Energy Board-regulated infrastructure that harm people or the environment.

TARGET	RESULTS 2016-17	RESULTS 2017-18
0	16	17

Percentage change of specific incident types on National Energy Board-regulated infrastructure.

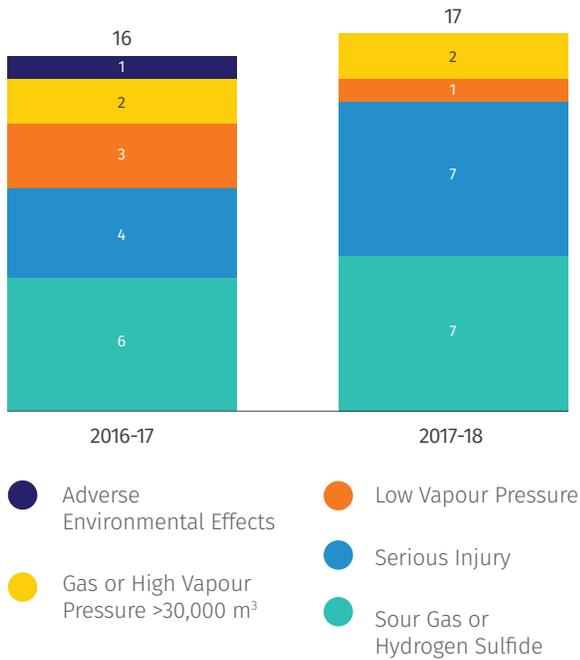
TARGET	RESULTS 2016-17	RESULTS 2017-18
10%	11%	10%
DECREASE IN INCIDENTS	INCREASE	INCREASE

The NEB always aims to achieve “zero” incidents that harm people or the environment associated with our regulated activities. But we also know that on 72,126 kms of regulated pipeline, the target of zero incidents is difficult to achieve. So in addition to seeking a reduction (elimination) of the prevalence of incidents occurring, as a regulator, we also want to affect a decline in the severity and consequence of incidents, should they occur. This is why we focus our efforts on reducing the number of incidents that harm people or the environment. We know (from our experience, data and industry feedback) that the risk of these incidents, specifically injuries and fatalities, increases when major construction activity increases.

The two indicators above are intended to be read together. The first looks at the total number of incidents per year. And, because we know that the numbers can vary greatly from year-to-year, the NEB also tracks the three-year rolling average, to better assess long-term changes. The total number of incidents that harmed people or the environment last year was 17; up from 16 the year before. The three-year rolling average also increased by 11% compared to the previous year. The NEB takes any incident very seriously – and has targeted its compliance and enforcement activities and other oversight activity (e.g., outreach, information sharing, etc.) for the coming year on three incident trends: worker safety during construction activities, unauthorized activities or near-misses, and operating beyond design limits.

FIGURE 5

Number of Incidents that Harm People or the Environment (total)



On the two major pipeline projects currently under construction (the TMEP and Enbridge Line 3 Replacement), we have increased our inspection and monitoring activities, and are also working closely with two Indigenous Advisory Monitoring Committees (IAMCs) to involve Indigenous Communities in this activity. Our aim is to reduce the prevalence of incidents that harm people or the environment – a goal shared by industry, communities, Indigenous groups, the public and the regulator.

Incident Data Analysis at the NEB

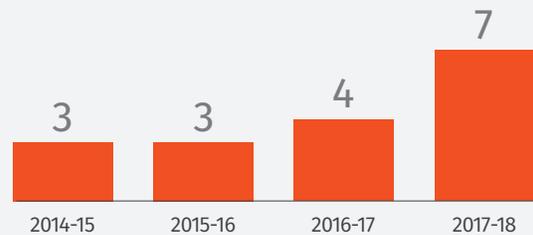
The NEB tracks and takes action on all incidents. For incidents that pose harm to people or the environment, we focus attention and increased regulatory oversight through inspections, detailed incident reviews and audits. We recognize that not all incidents are equal when it comes to their impact on the safety of people or the environment. For incidents that do not directly result in harm, but are more of a chronic concern, we examine and learn from those as leading indicators of where more serious harms can potentially occur. These types of incidents provide the NEB with valuable data that can help reduce the risk of future incidents of greater consequence and to plan our risk-based compliance and enforcement activities. We publically report all incidents on our website at www.neb-one.gc.ca. Two specific findings that have resulted from our analysis of incident data are discussed: **Worker Safety** and **Operations Beyond Design Limits**.

Increased Construction Activity, More Complex Regulatory Oversight and Increased Risks Related to Worker Safety

The number of incidents that harm people or the environment increased in 2017-18. The biggest increase year over year was in serious injuries, of which there were 7 compared to 4 the year before and all involved third-party contractors. Historically, incident data demonstrates that increased construction activity can mean increased incidents. In general, the NEB understands that construction activities involve many people, rough terrain and lots of activities involving heavy equipment. As a result more hazards to worker safety are present in comparison to day-to-day operations. The NEB will be incorporating datasets from other jurisdictions to better understand the risks that construction poses to workers on a broader scale and identify whether specific interventions are required.

FIGURE 6

Serious Injuries and Fatalities Reported to the NEB



Over the course of 2017-18, we increased compliance activity focused on construction, using a range of tools including pre-construction audits for TMEP and Line 3, scheduled and unscheduled inspections on construction sites, increased communication with companies and communities to raise awareness, and outreach activities to ensure compliance with regulatory and specific project condition requirements. It is difficult to measure the direct impact these actions had on reducing the number of incidents last year, as it is not possible to quantify the number of incidents that **did not** occur as a result of regulatory oversight and/or intervention. We are of the view that this work makes a real difference, however, and with major project construction set to increase next year, this trend remains a concern for the NEB as we head into 2018-19.

Major project construction also requires increased collaboration and integration among our different regulatory oversight functions and activities. Last year we worked hard to ensure our condition compliance reviews, audit and enforcement activities, adjudication processes (detailed route hearings, landowner complaint adjudication), and engagement activities were coordinated to discharge our responsibilities effectively and efficiently. We also kept Canadians apprised of our progress and findings, and worked closely with Indigenous communities as part of our IAMC commitments. These activities will remain a focus for the NEB in the coming year.

Operation Beyond Design Limits

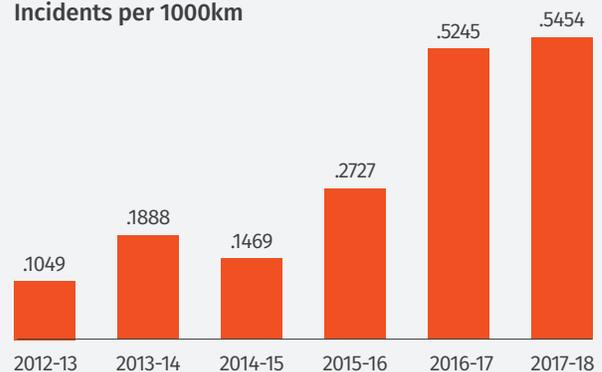
A key incident trend confirmed in the NEB's data is an increasing occurrence of the operation of a pipeline beyond its design limits. The NEB defines Operation Beyond Design Limits (OBDLs) as operation, for any amount of time, of a pipeline beyond the criteria for which the pipeline was designed, and/or the operation of the pipeline beyond criteria imposed by the Board to mitigate a condition on the pipeline. These types of incidents are not spills, fires or fatalities/injuries, but instead include situations where an overpressure occurred or where the pipeline was exposed. While they fall under the definition of "incident", they are actually much more closely related to "near-misses". If a company is unable to operate its pipeline system within its design limits, the NEB will require corrective and preventive actions that must be implemented by the company in order to **prevent** a larger incident.

There was an increase in OBDLs in 2017-18. Data collected to date shows that the majority of the OBDL incidents are attributed to one company: Trans-Northern Pipelines Inc. due to an increase in their reporting of past (historical) OBDL Incidents.

Regardless, the increase is still concerning to the NEB and as such the NEB has issued safety orders in response to these increasing incidents, to mitigate any immediate risks, and we have met with the company to understand the conditions that led to the OBDLs in the first place.

Trans-Northern Pipelines Inc. has made a number of changes to address management system gaps that improve their ability to prevent and report OBDL incidents and other sources of potential risk.

FIGURE 7
Operation Beyond Design Limits
(Overpressures)
Incidents per 1000km



In addition, as of April 1, 2018, the NEB has updated its reporting guidance to provide even greater clarity to all companies on this matter. The NEB expects, and will hold all companies to account for, a reduction in OBDL incidents, as this poses a risk that should be mitigated in the operations of pipelines. A list of Safety Orders and related actions issued by the NEB last year is included in Appendix E, and our website provides Canadians with a detailed overview of all reported incidents and our enforcement activities.

This incident trend will guide the NEB's compliance and enforcement activities in the coming year, with actions being taken to reinforce our expectation that all companies have management systems and a safety culture that anticipates and prevents incidents such as OBDLs from occurring in the future.

Percentage change of near-misses on National Energy Board-regulated infrastructure.

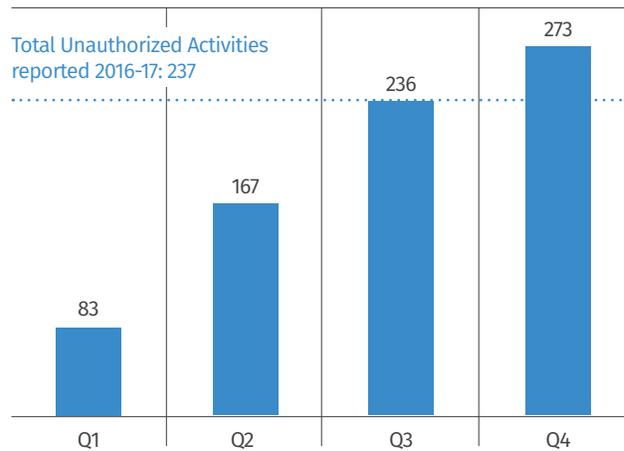
TARGET	RESULTS 2016-17	RESULTS 2017-18
5%	13%	16%
DECREASE	INCREASE	INCREASE

This measure is about the number of Unauthorized Activities (UAs) that are reported to the NEB. These are often called “near misses”, as the activities that are reported are prohibited (e.g., violate some aspect of the regulatory framework such as an unauthorized crossing of a pipeline, or activity on a pipeline right of way), but they do not cause an immediate concern or trigger an “incident” as defined.

Near-misses on NEB-regulated infrastructure:
2016-17: 237
2017-18: 273

The required reporting of these activities is important because “near misses” are leading indicators that provide a valuable source of information about activities that could cause harm or trigger an incident. In the last 5 years, the number of near-misses reported annually to the NEB has more than doubled, from 127 in 2013-14 to 273 in 2017-18.

FIGURE 8
Cumulative Near-Misses 2017-18



Increasing Unauthorized Activities – Accurate Reporting and Targeting Repeat Violators

“Near-misses” are a leading indicator of areas and activities where harm could occur and tracking them provides the NEB with additional insight on areas of greater risk so that we can take targeted action. The data also helps us target engagement activities to improve public awareness and safe digging, construction, and heavy vehicle activity near or over NEB-regulated pipelines. Starting with the **NEB Event Reporting Guidelines released in 2014 to targeted audits and new Damage Prevention Regulations** in 2016 and 2017, the NEB has focused on clarifying, enforcing and increasing the awareness around UA reporting requirements. As a result we have seen a steady increase in the number of UAs reported. Interestingly, as a proportion of the total number of UAs, the number that involved repeat violators has decreased. Because this increase correlates well with

regulatory actions targeted at increasing awareness and we have not seen the same increase in repeat violators, we believe this is mostly an increase in reporting rather than an increase in the number of UAs that occurred.

We are partnering with other organizations, such as the Canadian Common Ground Alliance to orient our related compliance verification activities by company, by region, and by repeat offenders, and taking action to reduce the number of near misses that are occurring. Every near-miss is reviewed by staff and the violator is contacted. The NEB focused our regulatory actions on repeat violators as they pose a higher risk. We will continue to focus on repeat violators and use data analysis to inform our 2018-19 compliance verification and Damage Prevention engagement activities.

Joint Monitoring Activities with Indigenous Monitors

With the establishment of the Indigenous Advisory Monitoring Committees that accompanied the approval of the Trans Mountain Expansion Project and Enbridge Line 3 projects, the NEB is moving into a new way of undertaking its oversight and engagement responsibilities for major construction projects. We seek to actively build Indigenous knowledge and experience into the NEB's approach to project oversight and monitoring, and to participate with, and support, Indigenous monitors in joint monitoring activities.

Both the NEB and IAMCs have common goals of environmental protection, safety, information transparency, and meaningful steps to address the concerns of local communities; co-creating opportunities to collaborate on these goals is driving a shift in how the NEB integrates Traditional Knowledge into our regulatory programs. The co-development of a training framework that helps the NEB incorporate Indigenous perspectives in our work, and supports Indigenous Monitors to participate in joint NEB-IAMC field inspections on major construction is one example of this. While our work in this regard is just beginning, it is a significant first step in building a new relationship with Indigenous Peoples, and a new way of approaching safety and environmental oversight. Moving forward, we also encourage companies to actively include Indigenous participation when planning maintenance and operational activities.



INDIGENOUS MONITOR VINCE RAIN OF PAUL FIRST NATION



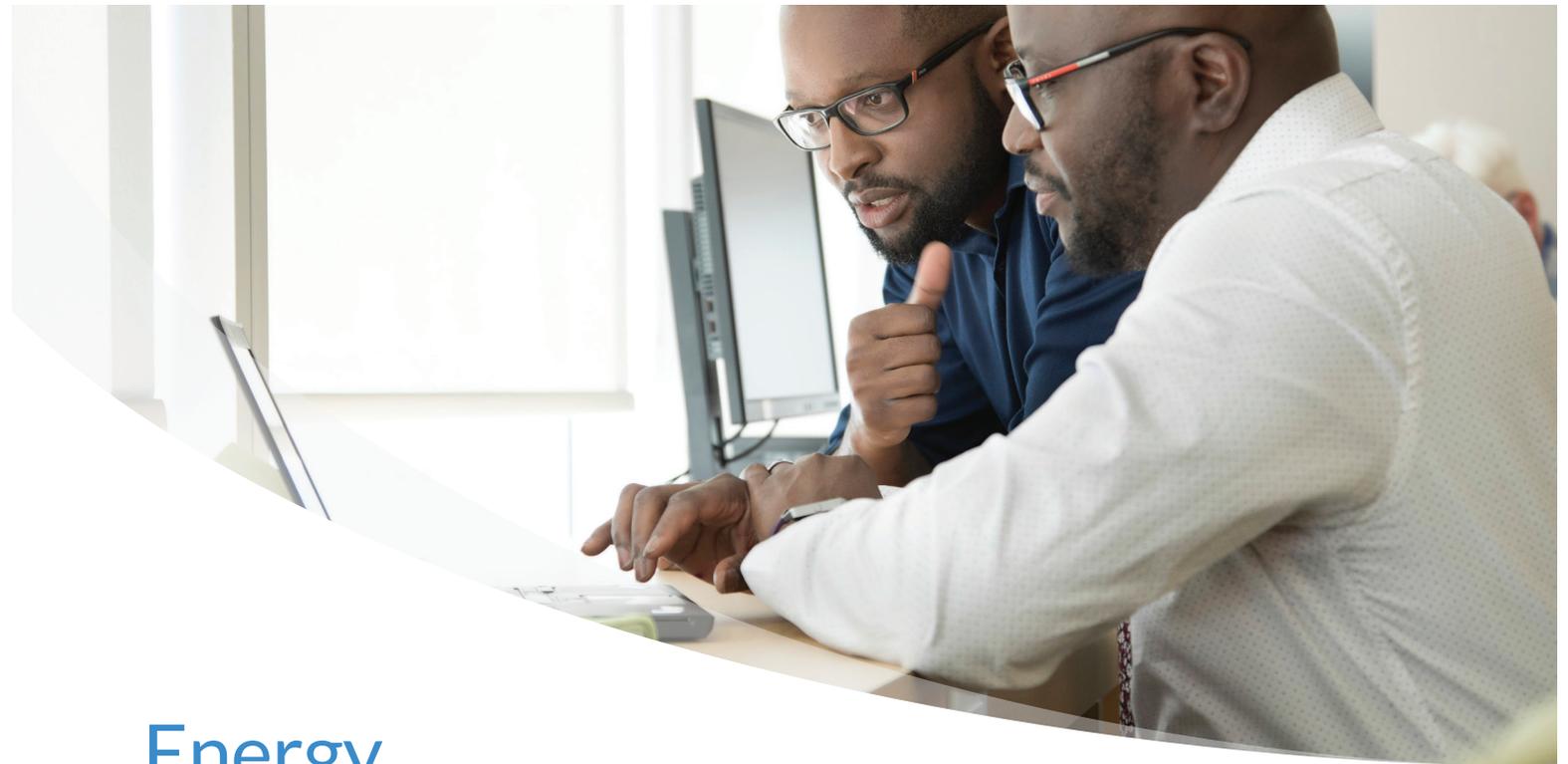
Performance Summary for Safety and Environment Oversight and Next Year's Focus:

- Continue to approach safety and environmental protection through the three main lenses of compliance/enforcement, management systems and safety culture, using the data we collect from company performance to assess industry-wide trends. This approach will inform our risk-based focus on management systems to drive systemic, industry-wide improvement.
- Emphasize and fully integrate engagement and Indigenous participation activities with compliance, enforcement, and audit processes in our regulatory oversight of three major construction projects – TMEP, Enbridge Line 3 and Keystone XL.
- Take targeted actions to address incident trends of Worker Safety, OBDL and Unauthorized Activities:

Worker Safety – Apply a targeted and multi-faceted approach to reducing worker safety incidents during construction. We will continue to utilize construction-focused compliance verification, and activities like pre-construction audits, and we will use management system audits to drive more systemic, industry-wide improvements in contractor training and oversight.

Operations Beyond Design Limits – We will continue to take enforcement actions, such as issuing Safety Orders, to ensure companies operate their pipelines safely. The NEB will also examine how best to address this issue at the industry level, through Advisories and management system-focused activities.

Unauthorized Activities – Using our data and data from related organizations like the Common Ground Alliance, we will target compliance verification activities to where we find the most potential for risk – with repeat offenders, in specific regions, and with specific companies, to reduce the potential for harm.



Energy Information

The NEB collects, monitors, analyzes and publishes information on energy markets and supply, sources of energy, and the safety and security of pipelines and international power lines.

Our Commitment

Canadians have access to and use energy information for knowledge, research and decision making, access to community-specific NEB-regulated infrastructure information, and opportunities to collaborate and provide feedback on NEB information products.

The NEB plays a vital role in conveying objective and neutral information to Canadians and the world. Rapidly changing energy markets and the need for climate policy development have also made this information more essential than ever. Technical staff at the NEB conduct extensive research and collaborate with various public, academic and not-for-profit organizations to produce balanced and thorough analysis of Canadian energy trends. We also provide Canadians information about pipeline infrastructure and safety at the community and regional level.

Energy Information Activity in 2017-18:



49

Market
Snapshots



8

New Energy
Information
Publications



Nearly

1 Million

Unique Energy
and Pipeline
Information Web
Page Views

PERFORMANCE RESULTS

Energy Information

The number of times NEB energy information is accessed.

TARGET	RESULTS 2016-17	RESULTS 2017-18
750,000	879,831	986,347

Tracking the number of unique external page views helps us determine how frequently this information is accessed. The number of users accessing the NEB’s online Energy Information grew by 12% in 2017-18, driven by new and innovative types of energy information products. Significant viewer gains were achieved by the NEB’s new Pipeline Profiles, Provincial Profiles, and data visualizations, along with updates of the well-received Energy Futures and Canada’s Renewable Power Landscape reports.

This is an indicator of the public’s appetite for more information about Canada’s energy systems, and the NEB’s ability to meet that demand creatively and efficiently. We continue to explore new offerings to ensure that the positive contributions we make to Canadian energy information continually evolve and improve.

One of the most-used products released by the NEB last year were our Pipeline Profiles, an interactive online tool that provides Canadians with easy-to-use information on what has been shipped on most major NEB-regulated pipelines since 2006. The profiles include detailed information on key statistics, developments, utilization, reported daily throughputs, tolls and financial data and international export/import points.

FIGURE 9

Pipeline Profiles: Enbridge Mainline

Pipeline system and key points



UPDATED DECEMBER 2017

The Enbridge Mainline system is Canada’s largest transporter of crude oil, moving Western Canadian crude oil production to markets in eastern Canada and the U.S. Midwest. The Mainline also transports refined petroleum products to Saskatchewan and Manitoba and natural gas liquids to Sarnia, Ontario. The first leg of the Mainline from Edmonton, Alberta to Superior, Wisconsin was built in 1950. In 1953 it was extended to Sarnia, Ontario. The Mainline has been expanded and upgraded during the last thirty years to its current configuration and capacity.

The Mainline originates in Edmonton, Alberta and extends east across the Prairies. It receives western Canadian and U.S. crude oil from feeder pipelines at Kerrobert and Regina in Saskatchewan and Cromer in Manitoba. The pipeline crosses the Canada-U.S. border near Gretna, Manitoba, where it joins with the Enbridge Lakehead system.

The percentage of surveyed web users who agree that energy information is useful for knowledge, research or decision making.

TARGET	RESULTS 2016-17	RESULTS 2017-18
75%	No results	84%

NEB's Energy Information programs are only as good as the data we collect and the need for the information we produce. We want to provide Canadians with the most useful energy and pipeline safety information possible.

We are meeting our targets in terms of unique web hits and user satisfaction. However, finding ways to gather feedback and understanding audience interests and needs remains a challenge. NEB staff are exploring ways to better engage with users to ensure they have access to the pipeline safety and energy market information they need for their knowledge, research, and decision making. In the coming year, the NEB will conduct focus groups to collect a more in-depth understanding of how the public uses our information.

Energy Systems Information products released in 2017-18:

- Market Snapshots – published weekly
- Pipeline Profiles – data updated quarterly, plus other periodic updates
- Canada's Renewable Power Sources (May 2017)
- Canada's Role in the Global LNG Market (July 2017)
- Energy Futures (October 2017)
- Duvernay Resource Assessment and Duvernay Shale Economic Resources (September and November 2017)
- Canada's Renewable Power Landscape (December 2017)
- Provincial Profiles (December 2017)
- Energy Futures Supplements (January 2017)
- Various Feature Articles (Maritime's Gas Price Regulation, GHG Emissions from Residential Electricity Consumption, Canadian innovations in the Energy Sector, etc.)
- Statistics Updates - ongoing

Increased information specific to National Energy Board-regulated infrastructure in communities.

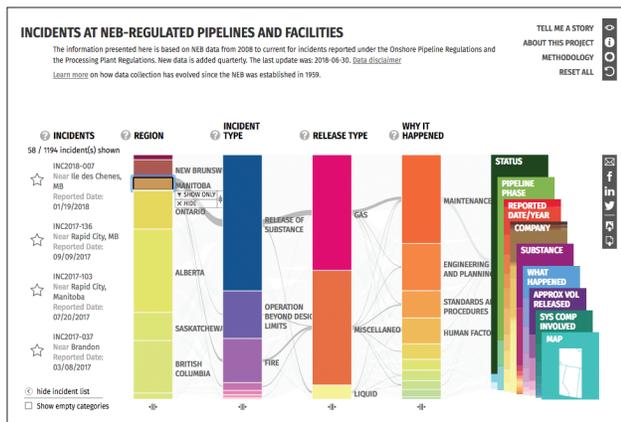
TARGET	RESULTS 2016-17	RESULTS 2017-18
5	7	5

NEW DATA SETS

In 2017-18, the NEB published new, community-based pipeline information, related to pipeline traffic, capacity, import/export points, safety orders, and select route maps. We also explored new ways of making that information more accessible, interactive and meaningful to users, through tools like data visualizations.

One important visualization developed and released last year related to providing Canadians with information in an easier-to-use format on incidents. It allows users to click on different data points, and filter data to view incident data based on user preferences.

FIGURE 10
Pipeline Incidents Data Visualization



The number of opportunities that Canadians have to collaborate and provide feedback on energy information products.

TARGET	RESULTS 2016-17	RESULTS 2017-18
42	No results	76

Energy system knowledge is a vast field that is informed by geographic perspectives, unique data repositories, and multiple disciplines. Participating in a broader network and actively seeking input and ideas from other energy-related organizations enables us to learn, share and pursue continual improvement in our Energy Information programs.

The NEB has met with stakeholders more than 70 times in the past year to discuss, consult on, and sometimes partner in the development of energy information products. Collaborations occur with organizations ranging from provincial and territorial governments across Canada, to various academic, non-profit, and industry organizations, and international bodies such as the US Federal Energy Regulatory Commission and the International Energy Agency.

Performance Summary for Energy Information and Next Year's Focus:

- We will continue to contribute to Canada's energy dialogue by offering the unique information, analysis and perspective of the regulator, as a distinct, integral part of our mandate.
- We will continue to integrate Energy Systems Information and Pipeline Information to offer Canadians a big-picture view of how energy markets, trade, infrastructure and development intersect.
- We will continue to publish high-quality products by proactively seeking audience feedback and engaging users on their experiences, utilizing intensive techniques like focus groups to capture deeper insight into preferences and needs.
- We will develop and release large-scale data visualizations on imports/exports and compliance conditions as a part of our commitment to provide Canadians with transparent access to regulatory data.



Engagement

The NEB engages with stakeholders and Indigenous Peoples on topics within the National Energy Board’s mandate and role, beyond engagement on specific projects.

Our Commitment

Stakeholders and Indigenous Peoples share their perspectives and provide feedback regarding the National Energy Board mandate and role, and NEB engagement activities with stakeholders and Indigenous Peoples are meaningful.

We firmly believe that the best way to prevent harm, keep Canadians safe, protect the environment, and prevent market inefficiencies is to listen to what people have to say so that we can make informed decisions and recommendations in the public interest.

In 2017-18, the NEB led the establishment of a Municipal Roundtable, with the Federation of Canadian Municipalities and Canadian Energy Pipeline Association. The goal of the Roundtable is to identify areas of common concern related to pipeline operations or activities, and find solutions that can be applied across the entire country. The NEB also renewed its commitment to the long-standing Land Matters Group, broadening the scope of the LMG’s work to issues-focused activities in areas of common concern to all landowners.

Engagement Information Activity in 2017-18:



319

Engagement Events



4,270

Participants in NEB Engagement Programs



Cultural Awareness Training by Indigenous Trainers Provided to

164

NEB Staff

An increased emphasis on engagement also reflects a new relationship between the NEB and Indigenous Peoples, based on recognition of rights, respect, co-operation, and partnership. Engagement allows the NEB to learn and pursue continuous improvement as a result of exposure to a broader base of input, views and perspectives. The goal of our NEB-wide engagement activities is to ensure that feedback provided by stakeholders and Indigenous Peoples inform our decisions and our work.

PERFORMANCE RESULTS

Engagement

Number of participants in National Energy Board engagement programs.

TARGET	RESULTS 2016-17	RESULTS 2017-18
600	723	4,270

Our engagement program activities track how NEB engagement is responding, and where and with whom we target our engagement efforts. They have been very well-subscribed, and we significantly exceeded our targets in this area in 2017-18. In addition to changing the target for 2017-18 to better reflect our experience in this area, we will also continue to refine and adjust our outreach activities to ensure they are meeting the needs of the communities we serve. In 2017-18, we conducted significant outreach activity led through our regional offices in Yellowknife, Vancouver and Montreal – in addition to the outreach that we supported all over Canada as part of our engagement programs.

Percentage of surveyed stakeholders who engaged with the National Energy Board who indicate that the engagement was meaningful.

TARGET	RESULTS 2016-17	RESULTS 2017-18
75%	No results	76%

While pleased with the survey feedback, we know that there is more to be done. We have developed new approaches and enhanced our engagement activities, and we need to ensure we mature these processes by clarifying our focus and intended results. A critical aspect of this will be to fully incorporate feedback and engagement data into a cycle of continuous improvement in the way we engage. In addition, we will sustain the efforts already underway to build internal capacity in public engagement and in particular, Indigenous Cultural training. We are not engaging for its own sake; we are engaging Canadians with the aim of ensuring it is meaningful to them – that there is an impact for their efforts, and appropriate action is taken when feedback is provided.

Key Feedback from Engagement Surveys

- Land Matters Group Stakeholders would like broader participation in LMG, and improved processes to drive efficiency and focus.
- Montreal Regional stakeholders felt more feedback is required on issues raised, and desired more engagement in project reviews.
- Vancouver Regional Stakeholders requested more in-depth engagement and more transparent, detailed information on aspects of the Trans Mountain Expansion Project project.
- Indigenous Peoples requested more cultural understanding from government and transparency when working with Indigenous communities.

Using Feedback to Drive Change

We are changing how we engage with Canadians. As a part of this, we are doing more to capture feedback from stakeholders and Indigenous People. We do this in order to build and maintain relationships, and to enhance future engagement activities.

The NEB sees the increasing importance of finding better ways to share and apply feedback broadly across all of the NEB's programs, to drive improvements in the way we work. We have undertaken many engagement activities over the past year, all of which have underlined to us the importance of continuing and strengthening this work. The drive to use what we have learned to further develop meaningful engagement will continue to shape our work in the coming year.

Percentage of surveyed Indigenous Peoples who engaged with the National Energy Board who indicate that the engagement was meaningful.

TARGET	RESULTS 2016-17	RESULTS 2017-18
75%	No results	80%

Working with Indigenous Peoples is very important to the NEB. While survey feedback in 2017-18 was positive, we know there is more to be done – particularly with respect to how we work with Indigenous communities in our regulatory oversight of major project construction on the TMEP and Line 3 projects.

IAMCs as a New Way of Working Together

One of the most significant activities for the NEB's Engagement programs has been supporting the co-development of Indigenous Advisory and Monitoring Committees for the Kinder Morgan, TMEP and Enbridge Line 3 projects. The IAMCs bring together Indigenous and senior federal representatives to provide input and advice to regulators, and to monitor the construction and operation of the projects. Members have a shared goal of safety and protection of environmental and Indigenous interests in the lands and waters.

This initiative represents a foundational change in the way the NEB and the Federal government works with Indigenous Peoples, and aims to develop an enduring and meaningful relationship with those Indigenous Communities along the projects' corridors, for the entire lifecycle of the two projects. The approach and Terms of Reference for the IAMCs were co-developed and formally approved in July 2017.

"This Committee provides First Nations and Metis Peoples an historic opportunity to advise the Federal government and regulator on how to best integrate Indigenous principles and interests into the lifecycle oversight of the project. This is a new way of working together for everyone involved and I look forward to continuing in the spirit of collaboration, learning, and joint fact-finding."

Joe Daniels, Line 3 IAMC Indigenous Co-Chair

Key milestones achieved for IAMCs in 2017-18

- Co-development of Terms of Reference for the TMEP and Line 3 IAMCs Completed
- Indigenous Monitor Pilot Project (IAMC-TMEP) Approved
- IAMC Representatives observed Burnaby Terminal and Jasper Emergency Management Exercises
- Workshop on Fish Spawning Deterrent Mats Issue with TMEP IAMC and Department of Fisheries and Oceans arranged to explain and address issues in real time



Performance Summary for Engagement and Next Year's Focus:

- While our results are activity-based, they begin to demonstrate the work and reach of our program efforts, as well as their importance. We can now mature the program to focus it more effectively and demonstrate outcomes.
- Feedback is a crucial aspect of the work we do to improve engagement, and we will continue to proactively seek input from surveys and interactions with individuals and groups.
- Our work with the IAMCs has shown us how critical and valuable this work is for effective safety and environmental oversight. Delivering on the IAMC commitments across the NEB requires coordination, planning and resources. This is a new relationship for the NEB and for Indigenous Communities; it is one that we value highly, and are committed to making successful.

IAMC CO-DEVELOPMENT BY THE NUMBERS	TMEP	LINE 3
Indigenous communities impacted	117	109
Indigenous communities engaged	~75%	~60%
Indigenous members on Working Group	12	50
Regional workshops	8	4
Line-wide (whole-of-pipeline route) workshops	2	2

To Learn More about the NEB

There is much more to say about the performance of the NEB over the past year, and we would encourage you to review the web-based program information available on our website. We have made great strides towards having much more of our data and information available on-line, including ensuring we are demonstrating a strong commitment to the Government of Canada's Open Data initiative – where Canadians can review, download and use the NEB's data for your own analysis and purposes.

Want more information about the NEB?

Please let us know! We welcome your feedback at the organizational contact information below.

Headquarters Calgary	Suite 210, 517 Tenth Avenue SW Calgary, Alberta T2R 0A8	Office: 403-292-4800 Toll free: 1-800-899-1265
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Regional Montréal	Suite 230, 505 De Maisonneuve Blvd. West Montréal, Québec H3A 3C2	Office: 514-283-3114 Cell: 514-240-0469
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Regional Vancouver	Room 219, 800 Burrard Street Vancouver, British Columbia V6Z 0B9	Office: 604-666-3975 Cell: 604-360-5094
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Regional Yellowknife	Suite 115, 5101 50th Avenue P.O. Box 2213 Yellowknife, Northwest Territories X1A 2P7	Office: 867-766-8408 Fax: 867-766-8410
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Fax: 403-292-5503
Toll free: 1-877-288-8803
TTY (teletype): 1-800-632-1663

<http://www.neb-one.gc.ca>
info@neb-one.gc.ca
@NEBCanada

<https://www.linkedin.com/company/national-energy-board>
<https://www.youtube.com/user/NationalEnergyBoard>

Appendix A

National Energy Board – Members

Peter Watson

(Chair/CEO)



- Deputy Minister, Executive Council, Government of Alberta, 2011-2014.
- Deputy Minister, Alberta Energy, Government of Alberta, 2008-2011.
- President, Clean Air Strategic Alliance, a multi-stakeholder alliance composed of representatives selected by industry, government and non-government organizations, to provide strategies to assess and improve air quality for Albertans, using a collaborative consensus process, 2005-2011.
- President, Alberta Water Council, a multi-stakeholder partnership with 24 Members from governments, industry, and non-government organizations. Its primary task is to monitor and steward implementation of the Alberta's Water for Life strategy and to champion achievement of the strategy's three goals, namely, a safe, secure drinking water supply, healthy aquatic ecosystems and reliable, quality water supplies for a sustainable economy, 2005-2008.
- Deputy Minister, Alberta Environment, Government of Alberta, 2005-2008.
- Assistant Deputy Minister, Environmental Assurance Division, Alberta Environment, Government of Alberta, 2002-2005.

Professional Affiliations, Degrees and Distinctions:

- Member of the Association of Professional Engineers, Geologists and Geophysicists of Alberta
- Fellow of the Canadian Academy of Engineering
- Completed Directors Education Program through the Institute of Corporate Directors
- Named Alberta's Resource Person of the Year, 2011
- B.Sc. Civil Engineering

Lyne Mercier

(Vice-Chair)



Before joining the NEB, Ms. Mercier worked at Gaz Métro for over 29 years, serving 10 years in executive positions. At Gaz Métro she was Director of the gas supply division, where she was responsible for strategic policy related to natural gas supply and for the management of natural gas transmission, storage and supply contracts. Prior to that, she was head of the pricing division, where she was responsible for toll design and cost-of-service allocation studies.

Professional Affiliations, Degrees and Distinctions:

- Bachelor of Commerce, St. Mary's University.
- Executive MBA from l'École des Hautes Études Commerciales.

Roland George

Mr. George has worked primarily in the private energy sector for over three decades. He was Senior Principal at Purvin & Gertz, an international energy-consulting firm (1998-2006; Calgary). There Mr. George led the North American natural gas practice. He also held increasingly senior positions with: the Canadian Energy Research Institute (Vice President Electricity & Natural Gas Research; 1994-1997; Calgary), Gaz Métropolitain (Chief Economist & Executive Advisor - Strategy; Director - Marketing Programs; and other positions in gas supply, regulatory affairs, and business development; 1983-1993; Montréal), Téléglobe Canada (Advisor - Corporate & Regulatory Affairs; 1981-1983; Montréal) and Canadian Pacific Limited (Analyst - Economic & Financial Analysis; 1979-1981; Montréal).



Professional Affiliations, Degrees and Distinctions:

- Member of the National Association of Regulatory Utility Commissioners' (NARUC) Gas Committee and subcommittee on Pipeline Safety and was a Member of the Energy Resources and Environment Committee, the Centre for Public Utilities' Advisory Council, and the International Association of Energy Economists.
- He was previously a member of the Executive Committee and the Chair of the Regulatory Affairs Committee of the Canadian Association of Members of the Public Utility Tribunal (CAMPUT) (now Canada's Energy and Utility Regulators).
- Masters of Business Administration (MBA) degree from École des Hautes Études Commerciales (HEC).
- Master's degree in Economics (MA) from Carleton University.
- Bachelor of Science degree (BSc) in Mathematics (major) and Computer Science from McGill University (1977).

Philip H. Davies,

LLB, ICD.D, Q. Arb.

Before joining the NEB, Mr. Davies spent over 30 years acquiring, constructing and operating energy infrastructures and facilities in North America's oil, gas and electric power industries.



During his career, Mr. Davies served as a member of several senior management teams – notably as Vice-President, Law and General Counsel of SaskPower; Vice-President, General Counsel and Corporate Secretary of Encana Gas Storage; and Associate General Counsel of Encana Midstream and Marketing.

Professional Affiliations, Degrees and Distinctions:

- ICD.D certification, Institute of Corporate Directors of Canada.
- Q. Arb. certification, ADR Institute of Canada.
- Member, Law Society of Alberta.
- Former President, Association of General Counsel of Alberta.
- Former Chair, Canadian Energy Law Foundation.
- Former Member of National Executive, Canadian Bar Association, Environment, Energy and Resources Law Section.
- Former Member of the Executive Committee and Treasurer of the Canadian Association of Members of the Public Utility Tribunal (CAMPUT) (now Canada's Energy and Utility Regulators).

Shane Parrish

Mr. Parrish brings to the National Energy Board 24 years of experience in the area of community economic development in the Northwest Territories, Nunavut, and NE British Columbia. Over the past 18 years, Mr. Parrish has worked in consultation, indigenous business development and negotiations in the petroleum and mining industries. As a consultant in the firm he founded in 2002, he has represented First Nations clients in negotiations with major Canadian energy producers and pipeline companies, with a focus on access and benefits agreements.

Previously, Mr. Parrish was Manager of Business Development for Canadian Petroleum Engineering Inc., where he worked with First Nations, government and industry in both Canada and Latin America. He was also the CEO of the Acho Dene Koe Corporate Group, where he oversaw the growth and development of band-owned corporations and their relationships with oil and gas companies.

Mr. Parrish's experience also includes five years as an Economic Development Officer with the Government of the Northwest Territories.

Professional Affiliations, Degrees and Distinctions:

- Bachelor of Arts in Economics from the University of Calgary.
- Diploma in Social Development from the Coady International Institute - St. Francis Xavier University.
- On November 20, 2013 Member Parrish's qualifications and competencies were reviewed by the Standing Committee on Natural Resources and was found competent to perform the duties of the position.



Murray Lytle,

Ph.D.

Dr. Murray Lytle has nearly 40 years' experience in the energy and mining sectors spanning North America, South America and Asia.

He has held a series of senior positions in the oil, gas and mining industries. Highlights include:

- Establishing and serving as General Manager of the Lima engineering office for H.A. Simons Ltd. (now AMEC E&C) of Vancouver, BC;
- Working as a manager and consultant on more than 30 mining projects in North and South America and Asia.
- He served as President and owner of Tessa Resource Consultants from 2001 to 2005 and Vice-President of Development for Sienna Gold Inc. from 2005 to 2009.
- In his most recent position, he served as the Divisional Manager for Snowden Mining Industry Consultants Inc., an internationally recognized mine engineering consultancy.
- He is fluent in both English and Spanish.

Professional Affiliations, Degrees and Distinctions:

- Ph.D., Mining Engineering (Corporate Social Responsibility) from the University of British Columbia.
- Member of the Association of Professional Engineers and Geoscientists of Alberta (P.Eng.).



Steven Kelly

Mr. Steven Kelly has over 30 years of practical expertise in maximizing the potential of conventional and unconventional energy resources, and brings considerable technical and commercial knowledge of North American and global energy markets.



Most recently he served as Vice President at IHS Energy, in the firm's Calgary office. IHS is an international provider of market, industry and technical expertise.

Mr. Kelly worked for 15 years at Purvin & Gertz Inc., a global independent energy consultancy, before its acquisition by IHS in 2011. He worked in the firm's Calgary and London offices, and was a Senior Vice President and Director of the firm.

Mr. Kelly began his career in the refining and marketing division at Shell Canada Limited. He progressed through various technical and planning roles in Sarnia, Edmonton and Calgary.

Professional Affiliations, Degrees and Distinctions:

- Bachelor's degree in Chemical Engineering from McMaster University.
- Master's degree in Chemical Engineering from McMaster University.
- Master's in Business Administration from the University of Calgary.
- Registered Professional Engineer (P.Eng.) with the Association of Professional Engineers and Geoscientists of Alberta (APEGA).

Keith Chaulk,

Ph.D.

Dr. Keith Chaulk has published numerous peer reviewed articles ranging from terrestrial and marine ecology to indigenous land use.



His northern regulatory experience includes tenures on the Voiseys Bay Environmental Management Board, the Nunatsiavut Land Use Planning Authority, the Lower Churchill Environmental Assessment Panel.

Dr. Chaulk has held senior leadership positions in a number of different settings.

From 2013-2015 he was the Vice President Indigenous with the University of the Arctic. The University of the Arctic is an international consortium of over 150 of the world's top universities sharing an interest in promoting education and research in the North. As Vice President Indigenous Dr. Chaulk provided strategic visioning to the UArctic leadership team and was an ex-officio member of the UArctic Board of Governors.

From 2007-2015 Dr. Chaulk was the Director of the Labrador Institute of Memorial University and led its revitalization and transformation into a multi-disciplinary research and education institute with a focus on sustainable development.

Early in his career Dr. Chaulk worked on the environmental mitigation program for low level military flight training in Labrador and Quebec and conducted baseline research for the Voiseys Bay Mine/Mill environmental impact statement.

He spent over a decade working for Environment Canada in Labrador, while mainly focused on work of the conservation branch, he also conducted work for other divisions of the department including environmental protection.

Affiliations, Degrees and Distinctions:

- B.Sc., Biology, Dalhousie University, 1994
- M.Sc., Biology, Acadia University, 2001.
- PhD, Cognitive and Behavioural Ecology, Memorial University, 2006.

Temporary Members

Alison Scott

Ms. Scott retired from the Nova Scotia government in 2012.

During her thirty years of Public Service she served in various capacities including Clerk of the Executive Counsel and Secretary to Cabinet, Deputy Minister of Energy and Intergovernmental Affairs.

Prior to her time as a Deputy Minister, she was a litigator with the Nova Scotia Department of Justice, specializing in administrative law and constitutional law. While with the NS Department of Energy Ms. Scott oversaw the development of Nova Scotia's energy research strategy and was instrumental in establishing ocean energy research institutions to further advance the development of Nova Scotia's offshore petroleum, tidal energy and carbon capture and storage opportunities.

In 2009 Ms. Scott was seconded to Environment Canada to advise the Deputy Minister in the development of Canada's approach to climate change negotiations.

She is a former member of: the federal government's Energy Sector Sustainability Table, Petroleum Research Atlantic, the Oil and Gas Administration Advisory Council (established under the Canadian Oil and Gas Act), and past chair of the Canadian Bar Association Constitutional Law and Human Rights section, a former part-time member of the faculty at Dalhousie law School, and the Attorney General's representative on Nova Scotia Barrister's Society Bar Council.

She is currently a member of the Board of Directors of the Dalhousie Law School Alumni Association.

Ms. Scott is the co-author of seven editions of the travel guide, "Exploring Nova Scotia" (Formac Publishing, Halifax NS).

Professional Affiliations, Degrees and Distinctions:

- Graduate of Dalhousie Law School (LLB) and St FX University (BA Hons.).
- Recipient of the Premiers Award for outstanding Public Service in 2008 and 1992.
- Recipient of the Queen's 125th Anniversary of the Confederation of Canada Medal (1992), for significant service to her community and Canadians.



David Hamilton

A resident of Sidney, British Columbia, Mr. Hamilton has more than 30 years of experience working in the Northwest Territories and Nunavut in the development of communities through both the parliamentary and democratic processes.



Mr. Hamilton was Deputy Minister and Clerk of the Legislative Assembly of the Northwest Territories for 20 years. He also held the appointment as Chief Electoral Officer for the Northwest Territories. Mr. Hamilton administered the first general election for Members to the Legislative Assembly in Canada's two new Territories, Nunavut and the Northwest Territories, following division of the NWT in 1999. Mr. Hamilton participated in the ratification votes for the Gwich'in Land Claim Agreement, the Sahtu Settlement Agreement and the Inuit Land Claim Settlement.

Mr. Hamilton has been involved in the electoral process in Canada for over 30 years and has extensive experience in community development at the territorial, provincial and international level.

The Governor in Council has re-appointed Mr. Hamilton as Temporary Board Member for a three-year term ending 30 June 2018.

Professional Affiliations, Degrees and Distinctions:

- Master's degree in Leadership and Training from Royal Roads University, Victoria, British Columbia.

James Ballem

Mr. Ballem has been a Board Member since 2012.

In 2007, Mr. Ballem established an energy consulting business, with an emphasis on renewable energy.

In 2004, he became Minister of Environment, Energy and Forestry. While in that portfolio he was responsible for the development of a major wind farm and the creation of the Renewable Energy Act.

In 2000, Mr. Ballem was named Minister of Health and Social Services, a post he retained until 2003 when he was named Attorney General and Minister of Environment and Energy.

In 1996, Mr. Ballem was elected to the PEI Legislative Assembly and served as Chair of the Standing Committee on Agriculture, Forestry and the Environment. This committee was responsible for developing the Implementation Strategy for the “Round Table Report on Land Use”, and conducted a review of the PEI Lands Protection Act, the legislation responsible for the ownership and use of Agricultural land.

From 1976-1993, Mr. Ballem owned and operated a dairy farm in partnership with his father.

In 1983, Mr. Ballem was named the first Chair of the PEI Milk Marketing Board. He served in that capacity until 1987. At that time, he was appointed as Chair of the PEI Potato Commission and the PEI representative on the Sectorial Advisory Group on International trade, a position he held until 1989.

Professional Affiliations, Degrees and Distinctions:

- Degree in Business Administration, University of Prince Edward Island.



Jacques Gauthier

Mr. Gauthier’s most recent position before joining the Board was serving as the President and Chief Executive Officer of LVM Inc., which is a national firm specializing in environmental geotechnical and energy services.

Throughout his career, Mr. Gauthier has contributed to the creation and development of major energy projects in Canada, the United States and Europe. In addition, he has held the position of President and CEO of Boralex Inc., one of Canada’s largest private renewable energy producers.

He is currently the Chairman of the Board of the Québec Wildlife Foundation.

He has served on a wide variety of boards of directors and committees, including the Organizing Committee of the Vancouver 2010 Olympic Games, the Canadian Olympic Committee, and the Prime Minister's Advisory Committee on the Public Service.

Between 2008-2010, Mr. Gauthier was the President of the Advisory Committee on Official Languages for the Vancouver 2010 Olympic Games.

Mr. Gauthier is passionate about Official Languages, a guest speaker at numerous Quebec business and energy industry forums.

Professional Affiliations, Degrees and Distinctions:

- Bachelor of Law degree from the Université de Sherbrooke.
- Member of the Bar of the Province of Québec.
- In 2012 Mr. Gauthier received the Québec Mercuriades Award in recognition of excellence in Occupational Health and Safety.



Damien Côté

Mr. Côté comes to the Board with broad legal, regulatory and management experience in Canada's North, most recently as Chief Operating Officer of the Inuvialuit Regional Corporation where he served as principal advisor to the Chair and Chief Executive Officer since 2015.



Between 2012 and 2014, Mr. Côté was the Executive Director of the Nunavut Water Board where he administered the technical, legal and operational aspects of the regulatory permitting process for the world's 5th largest freshwater resource.

Prior to Mr. Côté's experience as an executive in northern regulatory affairs, he worked for the Department of Justice Canada and the Public Prosecution Service of Canada, both in Iqaluit, and also as an economic researcher and consultant, providing program-specific advice and research to municipal, national and international clients.

Professional Affiliations, Degrees and Distinctions:

- Juris Doctor (J.D.), University of Ottawa
- Licentiate of Laws (LL.L.), University of Ottawa
- Masters of Arts in Economics (MA), University of Toronto
- Bachelor of Engineering – Environmental (B.Eng), Carleton University
- Bachelor of Arts Honours – Economics (B.A. Hons.), Carleton University
- Member of the Law Society of Upper Canada

Wilma Jacknife

Ms. Jacknife has over 15 years of experience practicing law, both in private practice and as legal counsel for Cold Lake First Nation in Alberta. She specializes in First Nations Governance, Consultation and Negotiation of Impact Benefit Agreements, Business Development, Administrative Law, Employment and Estates Law.



For four years, she was a mentor to students at the Coady International Institute's Indigenous Women in Community Leadership Program.

Between 2006 and 2009, Ms. Jacknife represented Cold Lake First Nation and Tribal Chiefs Ventures on the Indian Resource Council / Indian Oil and Gas Canada Joint Task Force which effected amendments to the Indian Oil and Gas Act (IOGA) and associated regulations.

Ms. Jacknife has extensive experience working with First Nations organizations across Canada including the Assembly of First Nations, the Grand Council of Treaty 8, First Nations Resource Council and the Indian Association of Alberta.

Professional Affiliations, Degrees and Distinctions:

- Doctor of Juridical Science and Indigenous Peoples Law and Policy, University of Arizona (2012)
- Master of Laws in Indigenous Peoples Law and Policy (LLM), University of Arizona (2006)
- Bachelor of Laws (LL.B), University of British Columbia (1994)
- Bachelor of Arts with Specialization, University of Alberta (1991)
- Bachelor of Arts, General, University of Alberta (1989)
- Member of the Indigenous Bar Association
- Member of the Law Society of Alberta

Alain Jolicoeur

With over 35 years in the Public Service of Canada, Mr. Jolicoeur has considerable executive experience at the Federal level and has served as President of the Canada Border Services Agency (2003 – 2008), Deputy Minister, Indian and Northern Affairs (2002 – 2003), Deputy Commissioner and Associate Deputy Minister/Deputy Commissioner designate, Canada Customs and Revenue Agency (1999 – 2002), Chief Human Resources Officer, Treasury Board Secretariat (1997 – 1999), Assistant Secretary, Labour Relations and Human Resources Management, Treasury Board Secretariat (1995 – 1997), and Director General, Human Resources, Environment Canada (1992 – 1995).



Since 2008, Mr. Jolicoeur has acted as President of AMPRAX Inc., as well as Principal at Fleury, Bouchard Jolicoeur.

Mr. Jolicoeur successfully led large-scale transformation agendas and large operational departments with multi-national reach.

He has been on the Board of the Institute on Governance, Chair of the Audit Committee of the RCMP, on the Executive Committee of the World Customs Organization as Vice-Chair, and Chair of the Pay Council of the RCMP. He is currently on the Board of Governors of Ottawa University and Chair of the Audit Committee of the Canada Space Agency.

Professional Affiliations, Degrees and Distinctions:

- Institute of Corporate Directors Certificate, Rotman School Of Management
- Meteorology, Université du Québec à Montréal
- Master of International Law and Customs, University of Canberra, Australia
- Bachelor of Applied Sciences in Physics Engineering, Laval University

Ronald Durelle

Mr. Durelle brings to the Board over 33 years of public service leadership in the areas of finance, administration and specialized corporate services.



Before retiring from the government of New Brunswick in 2015, Mr. Durelle held the title of Assistant Deputy Minister in three provincial government departments; Wellness, Culture and Sports (2008 – 2015), Tourism and Parks (2004 – 2008), and Health and Wellness (2001 – 2004).

Throughout Mr. Durelle's career, he has been at the forefront of numerous government reorganization and efficiency initiatives as well as major health and wellness reform initiatives.

Mr. Durelle has Chaired numerous Boards and Committees including Kings Landing Historical Board, Canada Parks Council and the New Brunswick Mental Health Reintegration Committee. He has also acted as Treasurer of the New Brunswick Alzheimer's Society and as the provincial government representative on the New Brunswick Museum Board, the Pays de la Sagouine Board and New Brunswick Pensions Committee.

Professional Affiliations, Degrees and Distinctions:

- Bachelor of Business Administration with Distinction (1982)
- Chartered Professional Accountant/Certified General Accountant (1987)
- Queens Executive Leadership Program (2002)

Carole Malo

Carole Malo's 30-year career has focused on the development, procurement and implementation of large energy and infrastructure projects (oil and gas pipelines, transmission and distribution electricity lines, thermal and hydro generation plants) in Canada and internationally. She has held senior roles in both the private and public sector including Vice-President, SNC-Lavalin Capital; Director, Investment Projects and Affiliates, Hydro-Quebec; Vice-President and Treasurer, AECON Group; and Vice-President, Project Finance, Infrastructure Ontario.



Prior to joining the Board, Ms. Malo ran her own consultancy firm specializing in providing independent strategic advice and support to public and private sector organizations as well as First Nations in Quebec and Ontario in the infrastructure, energy and public-private partnerships sectors.

Carole has served on boards and strategic and finance committees of several For-Profit and Not-For-Profit organizations including the Hamilton Utilities Corporation, TOK Transit, Humber River Hospital, the United Way (Women Gaining Ground), and the Badminton and Racquet Club of Toronto.

Professional Affiliations, Degrees and Distinctions:

- B.A.A. Finance (Hons), École des Hautes Études Commerciales (1980)
- Chartered Financial Analyst, C.F.A. Institute (1997)
- CSI, Canadian Securities Course (Hons) (2013)
- Fellowship in Board Governance, Canadian Board Diversity Council (2016)
- Member of Women in Infrastructure, Women in Energy, International Women's Forum, Institute of Corporate Directors, and CFA Institute.

Marc Paquin

Throughout Marc Paquin's 29-year career as a lawyer, he has focused on environmental and sustainable development law, policy and negotiations, environmental assessments and public hearings, institutional, programmatic and project evaluations, sustainable land management, energy, climate change, international trade and the environment, as well as corporate social responsibility.



Between 2002 and 2016, Mr. Paquin served as President and Chief Executive Officer for the UNISFÉRA International Centre, an independent advisory think tank focused on the integration of economic, social and environmental considerations in decision-making at the policy, planning and management levels in the public and private sectors, both in Canada and abroad.

Between 2014 and 2016, Marc served as a part-time member of the Bureau d'audiences publiques sur l'environnement (BAPE) with the Government of Quebec.

As an academic, he taught courses and conducted research on environmental law, corporate law and the environment, international trade and the environment and international development and the environment at the University of Sherbrooke, l'Académie internationale de l'environnement (Geneva), and McGill University.

Professional Affiliations, Degrees and Distinctions:

- Member of the Quebec Bar (since 1988)
- Master of Business Administration (MBA) – Université du Québec à Montréal (2004)
- Master of Laws (LL.M.) – McGill University (1992)
- Bachelor of Laws (LL.B.) – Université de Montréal (1987)
- Recipient of Chief Justice R.A. Greenshields Memorial Scholarship
- Recipient of Québec Young Bar Association Scholarship

Appendix B

2017-18 Application Activity

The following table outlines the number of applications received and decisions issued in 2017-18, by type of application. The applications include those that are subject to a routine application evaluation process where no one other than the applicant has expressed interest in providing input as well as applications where the NEB has established a public hearing process for receiving input from people other than the applicant as part of its evaluation process.

Abbreviations:

National Energy Board Act (**NEBA**)
Onshore Pipeline Regulations (**OPR**)
Canada Oil and Gas Operations Act (**COGOA**)

Canada Petroleum Resources Act (**CPRA**)
COGOA Drilling and Productions Regulations (**D&P Regs**)
COGOA Geophysical Operations Regulations (**GO Regs**)

	# Applications Received		# Decisions or Recommendations Issued	
	2016-17	2017-18	2016-17	2017-18
INFRASTRUCTURE APPLICATIONS				
Plans, Profiles and Books of Reference/Detailed Route (NEBA, Part III, s. 33-36)	3	2	2	12
Further Plans or Deviations (NEBA, Part III, s. 44, 45)	6	2	6	2
Large Pipeline Facilities (NEBA, Part III, s. 52)	1	0	4	1
Small Pipeline Facilities (NEBA, Part III, s. 58)	35	56	29	45
Power Line Permits (NEBA, Part III, s. 58.11)	2	1	0	1
Power Line Certificates (NEBA, Part III, s. 58.16)	0	0	1	0
Sales and Transfers (NEBA, Part V, para 74(1)(a), (b),(c))	10	9	13	12
Abandonments (NEBA, Part V, para 74 (1)(d))	7	5	7	7
Crossings (NEBA, Part V, s. 81, 112)	2	0	2	0
Right of Entry and Construction over other Utility Lines (NEBA, Part V, s.104 and 108)	1	3	1	0
OPR Applications: Change of Service, Deactivation, Reactivation, Decommissioning (OPR, Part VI, s. 43, 44, 45, 45.1)	38	21	28	25
Total Infrastructure Applications	105	99	93	109

	# Applications Received		# Decisions or Recommendations Issued	
	2016-17	2017-18	2016-17	2017-18
TOLLS AND TARIFFS APPLICATIONS				
Tolls and Tariffs (NEBA, Part IV, s. 59, 60, 62-65, 71)	30	22	29	22
EXPORTS & IMPORTS APPLICATIONS				
Oil and Gas short-term orders (NEBA, Part I, ss. 21 (1); NEBA, Part VI (Oil and Gas) Regulations: Part I, ss 6(3); Part II, s 15 or 22; Part III, s. 28)	501	489	504	489
Electricity Permits (NEBA, Part I, s.21, 21.2 and Part VI, s.119.03, and 119.093)	17	17	23	14
Long-term licences (NEBA, ss. 119(3); Part I, s. 21, ss 21. (1); Part VI, s. 117(1))	0	5	30	7
Total Exports & Imports	518	511	557	510
EXPLORATION & PRODUCTION				
Applications to alter the condition of a well (COGOA, D&P Regs s. 10, 12, 13)	18	6	18	5
OTHER				
Powers of the Board and Variances (NEBA, Part I, s. 12-13, 21)	34	51	15	24
Total All Applications & Decisions/Recommendations	705	689	712	670

Appendix C

Summary of Decisions and Recommendations Issued in 2017-18

Facilities

Westcoast Wyndwood Pipeline Expansion

On 10 August 2017, the Board issued a letter decision and Order approving a proposal from Westcoast Energy Inc., doing business as Spectra Energy Transmission (Westcoast), to build and operate the 27-kilometre-long Wyndwood Pipeline Expansion Project, subject to 32 conditions. The Reasons for the Decision were released on 28 September 2017. This project is a loop of Westcoast's existing Fort St. John Mainline located in northeast British Columbia. Please see the NEB's website to read the complete decision (GH-001-2017).

TCPL Ontario Meter Stations (Iroquois, Ottawa, Richmond North)

On 24 November 2017, the Board issued a letter decision and five Orders approving the Iroquois Export Bi-Directional Modification Project, the Ottawa Sales Meter Station Upgrade Project and the Richmond North Sales Meter Station Project. The projects are located in at Iroquois, Ontario, in the City of Ottawa, Ontario, and near Stitsville, Ontario respectively. Please see the NEB's website to read the complete decision (GHW-001-2017).

Trans Mountain Expansion Project – Notice of Constitutional Question

On 7 December 2017, the Board issued an order declaring that Trans Mountain Pipeline ULC (Trans Mountain) is not required to comply with two sections of the City of Burnaby's bylaws as the company prepares to begin constructing the Trans Mountain Expansion Project. The sections of the bylaws in question required Trans Mountain to obtain preliminary plan approvals and tree cutting permits for project-related work at Trans Mountain's Burnaby Terminal, Westridge Marine Terminal, and at a nearby temporary infrastructure site. The Reasons for the Decision were released on 18 January 2018. Please see the NEB's website to read the complete decision (MH-081-2017).

NGTL Albersun Purchase

On 14 December 2017, the Board recommended that Governor in Council (GiC) approve the issuance of a Certificate of Public Convenience and Necessity (Certificate) for the continued operation by NOVA Gas Transmission Ltd. (NGTL) of the Albersun pipeline and to allow NGTL to isolate the Albersun Pipeline from the Canadian Natural Resources Limited (CNRL) owned pipeline immediately south of NGTL's Crow Lake Sales Lateral tie-in, subject to 16 conditions. The Board also issued a decision that it is in the public interest to grant NGTL leave to purchase the Albersun Pipeline from Suncor pursuant to paragraph 74(1)(b) of the NEB Act, subject to a Certificate being issued. NGTL applied to the Board for leave to purchase the Albersun Pipeline from Suncor Energy Logistics Corporation (Suncor), the proposed acquisition and continued operation of approximately 179 km of pipeline, plus associated mainline valves, launcher and receiver facilities, metering facilities and rights-of-way (ROWs), located in northeastern Alberta. No further construction, decommissioning or abandonment activities associated with the Albersun Pipeline were proposed by NGTL. Please see the NEB's website to read the complete decision (GHW-001-2016).

Enbridge Line 21 Replacement Program

On 25 January 2018, the Board approved an application from Enbridge Pipelines (NW) to replace a 2.5 km segment of its Line 21 Pipeline, also known as the Norman Wells Pipeline, subject to 26 conditions. The Board also approved Enbridge's plan to leave the section of pipe that is being replaced under the Mackenzie River. The section of pipe that is to be left behind will be cleaned, filled with grout and capped, in accordance with NEB regulations and CSA standards. In order to review this application in a timely and effective way, the NEB coordinated its oral hearing with that of the Mackenzie Valley Land and Water Board, which also has regulatory responsibilities under the Mackenzie Valley Resource Management Act. Please see the NEB's website to read the complete decision (MH-001-2017).

NGTL Sundre Crossover

On 28 December 2017, the Board issued a letter decision and Order approving an application by NOVA Gas Transmission Ltd (NGTL) to build and operate the Sundre

Crossover Project, subject to 14 conditions. The Reasons for the Decision were released on 22 March 2018. This project consists of 21 km of natural gas pipeline located east of the Town of Sundre, Alberta. Please see the NEB's website to read the complete decision (GH-002-2017).

Trans Mountain Expansion Project Detailed Route

The Board issued 12 detailed route hearing decisions for the Trans Mountain Expansion Pipeline. Please see the NEB's website to read the complete decisions.

DATE DECISION ISSUED BY THE NUMBERS	HEARING ORDER NUMBER	LANDOWNER	SEGMENT OF TRANS MOUNTAIN EXPANSION PIPELINE PROJECT
6 February 2018	MH-010-2017	Gerald Stroud	Segments 1 and 2
6 February 2018	MH-017-2017	Cribb Construction Ltd.	Segments 1 and 2
6 February 2018	MH-030-2017	Dianne Murray	Segments 1 and 2
6 February 2018	MH-060-2017	Victoria Maitland and John Gordon McKay	Segments 1 and 2
13 February 2018	MH-025-2017	Russell	Segments 1 and 2
15 February 2018	MH-033-2017	City of Burnaby	Segments 1 and 2
15 February 2018	MH-055-2017	Mr. David Huntley	Segments 1 and 2
1 March 2018	MH-026-2017	Javier and Annemarie Sarango	Segments 1 and 2
2 March 2018	MH-007-2017	Shawn Berry	Segments 1 and 2
2 March 2018	MH-018-2017	Stuart Palk and Wendy Bailer-Palk	Segments 1 and 2
2 March 2018	MH-022-2017	Erich Ploentzke	Segments 1 and 2
27 March 2018	MH-023-2017	Dale and Lorna Plummer and Carly Morin	Segments 1 and 2

Alliance Pipeline Ltd. – Clairmont Meter Station Abandonment

On 29 August 2017, the Board issued a letter and Order approving Alliance Pipeline Ltd.'s application for final site decommissioning and reclamation of the Clairmont Meter Station and associated facilities, subject to 8 conditions. The project involved 1 meter station in Alberta. Please see the NEB's website to read the complete decision (MHW-003-2017).

NGTL 2016 Meter Stations and Laterals Abandonment

On 25 September 2017, the Board issued a letter and Order approving NOVA Gas Transmission Ltd.'s application to abandon 10 meter stations and 14 lateral pipelines in Alberta, subject to 12 conditions. The project included 50.8 km of pipeline, with 4.1 km to be removed and 46.7 km to be left in place. Please see the NEB's website to read the complete decision (MHW-002-2017).

SanLing Boundary Lake Abandonment

On 5 October 2017, the Board issued a letter and Order approving SanLing Energy Ltd. and Yoho Resources Inc.'s application to abandon the Boundary Lake Pipeline, subject to 9 conditions. The project included 13 km of pipeline in British Columbia and Alberta. Please see the NEB's website to read the complete decision (MHW-001-2017).

Many Islands – Chinook Loomis Pipeline Abandonment

On 9 January 2018, the Board issued a letter and Order approving Many Islands Pipe Lines (Canada) Ltd.'s application to for final site decommissioning and reclamation of the Chinook-Loomis Pipeline and associated facilities, subject to 10 conditions. The project included 106 m of pipeline in Saskatchewan. Please see the NEB's website to read the complete decision (MHW-005-2017).

2017 NGTL Meter Stations and Lateral Pipeline Abandonment

On 16 February 2018, the Board issued a letter and Order approving NOVA Gas Transmission Ltd.'s application to abandon 23 meter stations and 23 lateral pipelines in Alberta, subject to 14 conditions. The project included 145 km of pipeline, with 1 km to be removed and 144 km to be left in place. Please see the NEB's website to read the complete decision (MHW-004-2017).

Many Islands – Petrolia Pipeline Abandonment

On 5 March 2018, the Board issued a letter and Order approving Many Islands Pipe Lines (Canada) Ltd.'s application to abandon the Petrolia Pipeline and associated facilities, subject to 12 conditions. The project

included 134 m of pipeline in Saskatchewan and Alberta. Please see the NEB's website to read the complete decision (MHW-006-2017).

Peace River Mainline Abandonment

On 14 March 2018, the Board approved an application from NOVA Gas Transmission Ltd. (NGTL) to abandon a 266 kilometre section of its Peace River Mainline in Northwestern Alberta. The Board attached 22 conditions to its approval.

The company will remove a nine kilometer section of the pipeline on Sturgeon Lake Cree Nation Reserve Land and abandon the remaining pipeline segments in place. This was the largest proposal to abandon a facility ever considered by the NEB. Please see the NEB's website to read the complete decision (MH-002-2017).

Tolls and Tariffs

US Oil Tariff Complaint 2016

On 12 July 2017, the Board issued a letter decision approving Trans Mountain Pipeline ULC's proposed Tariff No. 102 as filed. The Board had heard a complaint from U.S. Oil & Refining Co. in its consideration of the proposed tariff. Please see the NEB's website to read the complete decision.

TransCanada Pipeline Ltd. Herbert LTFP Service

On 15 June 2017, the Board issued a letter decision approving the Herbert Long Term Fixed Price (LTFP) Service application as filed by TransCanada PipeLines Limited. The Board released a letter on 5 July 2017 providing the reasons that support the earlier decision. Please see the NEB's website to read the complete decision (RH-002-2017).

TransCanada Pipeline Ltd. Dawn LTFP Service

On 21 September 2017, the Board issued a letter decision approving the Dawn Long Term Fixed Price (LTFP) Service application as filed by TransCanada PipeLines Limited. The Board released a letter on 23 November 2017 providing the reasons that support the earlier decision. Please see the NEB's website to read the complete decision (RH-003-2017).

M&NP Load Retention Service

On 22 January 2018, the Board denied an application from Maritimes & Northeast Pipeline (M&NP) for approval of a new pipeline service and toll. M&NP had offered a "load retention" service and discounted rate to Irving Oil in exchange for a 13-year commitment to use the M&NP Pipeline to ship up to 68,579 gigajoules per day (GJ/d) of natural gas from the Canada/U.S. border in St. Stephen, NB to the Irving Oil Refinery and cogeneration facility in Saint

John, NB. M&NP said it offered the service to Irving Oil in response to a competing offer from the Emera Brunswick Pipeline. The Board turned down the application saying that the application was premature. Please see the NEB's website to read the complete decision (RHW-001-2017).

M&NP Tolls Settlement Application 2017-19

On 1 March 2018, the Board issued a letter and Order approving Maritimes & Northeast Pipeline Management Ltd.'s application for approval of a 2017-19 toll settlement. Please see the NEB's website to read the complete decision (TG-001-2018).

Enbridge Line 3 Toll Review and Variance

On 8 March 2018, the Board issued a decision to rescind, in its entirety, its 29 October 2015 Decision on the interpretation of Enbridge Pipeline Inc.'s Toll Principles respecting the proposed Line 3 Replacement Program. Please see the NEB's website to read the complete decision (RH-001-2017).

Imports and Exports

Under Part VI, applications to import and/or export come in two forms: short-term orders and long-term licences. The table contains details of Part VI long-term (import and export) licence applications approved by the Board during 2017-18.

TOTALS FOR FISCAL YEAR 2017-18	NEW	AMENDMENTS	RENEWALS	REVOCATIONS	TOTAL
Propane Short-Term Export Orders	9	1	68	0	78
Butanes Short-Term Export Orders	8	1	55	0	64
Oil Short-Term Export Orders	17	4	147	3	171
Gas Short-Term Export and Import Orders	165	5	0	6	176
Electricity Export Permits	8	2	0	4	14
Propane Long-Term Export Licenses	1	0	0	0	1
Gas Long-Term Licenses (Import and Export) Including Liquefied Natural Gas	2	1	0	3	6
Total	210	14	270	16	510

The table contains details of Part VI short and long-term (import and export) licence applications approved by the Board during 2017-18.

Approved Import and Export Licence Applications

COMPANY	COMMODITY	APPLICATION INFORMATION	LICENCE TERM	NEB DECISIONS	LICENCE
Aurora Liquefied Natural Gas Ltd.	gas	2017-12-15 Revocation Application [Folder 3405230]	25 years	2018-01-10 Revocation Approved [Filing A89099]	2018-01-10 RO-GL-307 [Filing A89099]
Petrogas Energy Corp.	propane	2016-03-21 Export Licence Application [Folder 2937453]	25 years	2017-01-12 Licence Approved Letter Decision [Filing A81274]	2017-04-20 GL-339 [Filing A82706]
Prince Rupert LNG Exports Limited	gas	2017-05-09 Revocation Application [Folder 3269159]	25 years	2017-07-21 Revocation Approved [Filing A85086]	2017-07-21 RO-GL-301 [Filing A85086]
Rockyview Resources Inc. (License Transferred from Quicksilver Resources)	gas	2017-03-30 Transfer Application [Folder 3225703]	25 years	2017-04-12 Transfer Approved [Filing A82597]	2017-05-31 AO-001-GL-311 [Filing A83985]
Seneca Resources Corporation	natural gas	2016-09-06 Import Licence Application [Folder 3027691]	7 years	2016-10-04 Licence Approved Letter Decision [Filing A79794]	2017-06-23 GL-336 [Filing A84576]
Woodfibre LNG Export Pte. Ltd.	gas	2017-08-25 Revocation Application [Folder 3321218]	25 years	2017-08-30 Revocation Approved [Filing A85741]	2017-08-30 RO-GL-304 [Filing A85741]
Woodfibre LNG Export Pte. Ltd.	natural gas	2016-10-27 Export Licence Application [Folder 3080702]	40 years	2017-04-06 Licence Approved Letter Decision [Filing A82480]	2017-06-09 GL-340 [Filing A84304]

Environmental Assessments

For projects located on federal lands¹, section 67 of the Canadian Environmental Assessment Act 2012 (CEAA 2012) requires that before federal authorities make any decision that would allow a project to proceed, they must determine whether a project is likely to cause significant adverse environmental effects. Under section 71 of CEAA 2012, the NEB is required, at the end of each fiscal year, to report to both Houses of Parliament on its activities under sections 67, 68 and 69 of CEAA 2012 during the previous fiscal year.

During the 2017-18 fiscal year, the NEB completed environmental assessments for two projects that are located on or that cross federal lands. In each case, the NEB determined that carrying out the project would not likely cause any significant adverse environmental effects and approved the project.

: **TransCanada PipeLines Ltd.** s. 58 application to
: construction and operation - Ottawa Sales Meter Station
: Upgrade Project

: **Westcoast Energy Inc.** carrying on business as Spectra
: Energy Transmission - Application to Vary Order XG-
: W102-008-2016 - Temporary Workspace Increase Request

¹ FEDERAL LANDS INCLUDES, AMONG OTHER THINGS, PORTIONS OF THE INTERNAL WATERS AND THE TERRITORIAL SEA OF CANADA IN ANY AREA NOT WITHIN A PROVINCE AND RESERVES THAT ARE SUBJECT TO THE INDIAN ACT (AND ALL WATERS ON AND AIRSPACE ABOVE THOSE RESERVES).

Appendix D

Service Standards

National Energy Board Service Standards Results 2017-18

	SERVICE STANDARDS	SERVICE STANDARD RESULTS 2017-18
Participant Funding	<ul style="list-style-type: none"> 80% of funding decisions are provided within 30 days of a complete application or application deadline 	<ul style="list-style-type: none"> 35 funding decisions: 100% completed within 30 days
Hearing Recommendations	<ul style="list-style-type: none"> 80% of Reasons for Recommendation/ Decision completed within 12 weeks following a public hearing 	<ul style="list-style-type: none"> 19 decisions: 84% completed within 12 weeks following a public hearing
Export/Import Authorizations	<ul style="list-style-type: none"> 80% of short-term order decisions made within two working days (excludes renewals) 	<ul style="list-style-type: none"> 199 received: 99% of decisions released within targeted timelines
Electricity Export Permits	<ul style="list-style-type: none"> 80% of decisions released within target following the completion of the Notice of Application/Directions on Procedures period 	<ul style="list-style-type: none"> 8 received: 100% of decisions released within targeted timelines
Landowner Complaints	<ul style="list-style-type: none"> Respond with initial course of action: 100% responded to within ten calendar days 	<ul style="list-style-type: none"> 22 files: 100% responded to within ten calendar days
Onshore Pipeline Regulations and Processing Plant Regulations Audits	<ul style="list-style-type: none"> 80% of draft audit reports sent to the audited company within twelve weeks of field work completion 80% of final audit reports sent to the audited company within twelve weeks of receiving the company's comments on the draft report 	<ul style="list-style-type: none"> 4 draft audit reports: 100% of draft audit reports released within twelve weeks of field work completion 8 final audit reports: 100% of the final audit reports completed within twelve weeks of receiving the company's comments on the draft report
Financial Audits	<ul style="list-style-type: none"> 80% of draft financial reports sent to the audited company within eight weeks of completing field work 80% of final financial audit reports sent to company within three weeks of receiving the audited company's comments on the draft financial report 	<ul style="list-style-type: none"> 5 draft financial report: 100% of draft audit reports released within eight weeks of completing field work 4 final financial audit report: 100% of final financial audit reports sent to company within three weeks of receiving the audited company's comments on the draft financial report

	SERVICE STANDARDS	SERVICE STANDARD RESULTS 2017-18
Non-hearing Section 58 Applications	<ul style="list-style-type: none"> 80% of decisions released by the target date from the application complete: <ul style="list-style-type: none"> Category A within 40 calendar days Category B within 90 calendar days Category C within 120 calendar days 	<ul style="list-style-type: none"> 41 received: 98% of decisions released within targeted timelines
CANADA OIL AND GAS OPERATIONS ACT APPLICATIONS		
Well Drilling Applications	100% of decisions rendered within 21 calendar days of receiving a complete application	<ul style="list-style-type: none"> N/A
Applications to Alter the Condition of a Well	100% of decisions rendered within 21 calendar days of receiving a complete application	<ul style="list-style-type: none"> 5 received: 100% of decisions rendered within 21 calendar days
Geological and Geophysical Applications	100% of decisions rendered within 30 calendar days of receiving a complete application	<ul style="list-style-type: none"> N/A
CANADA PETROLEUM RESOURCES ACT APPLICATIONS		
Significant Discovery Applications on Frontier Lands	80% of decisions rendered within 90 calendar days from the day all information is available to begin the evaluation process	<ul style="list-style-type: none"> N/A
Commercial Discovery Applications on Frontier Lands Well Drilling Applications	80% of decisions rendered within 90 calendar days from the day all information is available to begin the evaluation process	<ul style="list-style-type: none"> N/A
Library Requests	90% of requests responded to within one working day	724 requests: 98% of requests responded to within one working day

Appendix E

Safety Orders in Effect in 2017-18

The following table summarizes the status of the Safety Orders that are currently in effect. Many Safety Orders will remain in effect for several years. Staff continue to monitor. The existence of a Safety Order in many cases establishes/imposes safe thresholds for continued operation (e.g. pressure restrictions). It is necessary to keep these restrictions in place until such time the Board is of the opinion that the company has sufficiently addressed underlying issues.

COMPANY	SAFETY ORDER ISSUED	DATE ISSUED	REASON FOR SAFETY ORDER	RESULTING ACTION	LOCATION
Centra Transmission Holdings Inc	SG-C293-01-2011	20-Jan-11	Non-compliances resulting from compliance verification activity	Pressure restriction of 80% of the Maximum Operating Pressure	Sections through Ontario, Fort Francis
Trans-Northern Pipelines Inc	SO-T217-01-2011	26-May-11	Emergency Management Audit Findings	Corrective Action Plan filed. Implementation assessment meeting required.	System-wide
DR Four Beat Energy Corp	SG-D081-01-2013	18-Apr-13	Company does not have an emergency procedures manual or emergency response plan	Suspend operations of the Knappen Border Pipeline and associated facilities	Knappen Border Pipeline and Associated Facilities
NOVA Gas Transmission Ltd	SG-N081-006-2013	19-Dec-13	North Lateral Extension Loop leak, engineering assessment does not meet CSA Z662-11 standards Incident # 2013-148	Pressure restriction to 7633 kPa, then further asked to reduce pressure to 5,514 kPa	North Lateral Extension Loop
NOVA Gas Transmission Ltd	SG-N081-005-2013	19-Dec-13	Issued due to Incident # 2013-141, leak on Ukalta Lateral line	Pressure restriction not exceeding 6,570 kPa, must perform weekly above ground leak detection surveys, inline inspection validation	Ukalta Lateral

COMPANY	SAFETY ORDER ISSUED	DATE ISSUED	REASON FOR SAFETY ORDER	RESULTING ACTION	LOCATION
TransCanada PipeLines Limited (TCPL)	SG-T211-002-2014	10-Apr-14	Incident 2013-150 leak, which occurred on the TCPL Canadian Mainline Line near Burstall	Operate the section of Line 100-4 at an operating pressure not exceeding 3,500 kPa, until such time as the Board may approve an increase in operating pressure	Canadian Mainline Line 100-4 near Burstall
TransCanada PipeLines Limited	AO-001-SG-T211-002-2014	17-Apr-14	Amended Order to replace Condition 2, granting an extension for condition 2 from 17 April to 20 April 2014.	Order amended by replacing Condition 2, granting an extension for condition 2 from 17 April to 20 April 2014.	Canadian Mainline Line 100-4 near Burstall
Trans-Northern Pipelines Inc	AO-002-SO-T217-006-2013	12-Dec-14	Amendment issued to grant extension to Condition 1g and 1h of Original Order	Replaced the Amending Order	All pipelines
Plains Midstream Canada ULC	SO-P384-001-2015	13-Jan-15	Deficiencies from non-compliant findings associated with Corrective Action Plan from 2010 Audit	Requires corrective actions to address deficiencies	Pipelines in Alberta, Saskatchewan, Manitoba and Ontario
NOVA Gas Transmission Ltd	AO-010-SG-N081-001-2014	14-Jul-16	Removal of Waterton Interchange Lateral	Removal of a pipeline from the scope of the Order	Waterton Interchange Lateral
Trans-Northern Pipelines Inc	AO-001-SO-T217-03-2010	19-Sep-16	Issued to replace SG-T217-04-2009, SG-T217-01-2010, SO-T217-03-2010	Pressure Restriction to 90% of the authorized Maximum Operating Pressure on three lines and 30% reduction on 16 lines	Numerous Locations

COMPANY	SAFETY ORDER ISSUED	DATE ISSUED	REASON FOR SAFETY ORDER	RESULTING ACTION	LOCATION
Trans-Northern Pipelines Inc	AO-002-SO-T217-03-2010	24-Oct-16	Issued to extend timeline and approves revised commitment plan, technical corrections	Content corrections and extensions	Ontario and Quebec
Trans-Northern Pipelines Inc	AO-003-SO-T217-03-2010	12-Apr-17	Issued to amend AO-002. Varied the Amending Order to move the Nanticoke to Oakville Pipeline from Schedule B to a new Schedule D	Removal of a pipeline from the scope of the Order	Ontario and Quebec

Appendix F

Administrative Monetary Penalties Issued in 2017

REFERENCE NUMBER	UPDATED	RECIPIENT	REGION	DESCRIPTION	PENALTY AMOUNT
2017-AMP-001	2017-12-07	Landstar Projects	Surrey (BC)	6(b) of the Pipeline Crossing Regulation (PCR), Part I for an unauthorized activity without written permission from the pipeline company prior to excavation – Board Review Decision	\$28,000

Appendix G

Abandonment Funding

Companies using Letters of Credit or Surety Bonds

This table lists all NEB-regulated companies that have a financial instrument on file with the NEB for the full amount of their abandonment cost estimate.

COMPANY	FINANCIAL INSTRUMENT	AMOUNT OF INSTRUMENT (IN DOLLARS)
1057533 Alberta Ltd. (Harvest Operations Corp)	Letter of Credit	898,936
6720471 Canada Ltd.	Letter of Credit	40,000
Altagas Holdings Inc. for and on behalf of Altagas Pipeline Partnership	Surety Bond	30,300,000
ARC Resources Ltd.	Letter of Credit	586,000
Bellatrix Exploration Ltd.	Letter of Credit	54,000
Blackbird Energy Inc.	Letter of Credit	11,600
Bonavista Energy Corporation	Letter of Credit	16,830
Bow River Energy Limited	Financial instrument cashed by the Board	68,500
Caltex Resources Ltd.	Letter of Credit	73,800
Canadian Natural Resources Limited	Surety Bond	2,084,442
Canadian-Montana Pipe Line Company	Surety Bond	200,000
Champion Pipe Line Corporation Limited	Letter of Credit	8,262,000
Cona Resources Ltd.	Letter of Credit	132,000
ConocoPhillips Canada Operations Ltd.	Letter of Credit	606,139
Crescent Point Energy Corp.	Letter of Credit	315,855
Delphi Energy Corporation	Surety Bond	163,000
Enbridge G and P Canada Pipelines Inc.(transferred from Murphy Oil)	Letter of Credit	3,673,500

COMPANY	FINANCIAL INSTRUMENT	AMOUNT OF INSTRUMENT (IN DOLLARS)
Encana Corporation 2 Mid tupper	Letter of Credit	279,068
Encana Corporation 3 Typper-Hythe	Surety Bond	2,221,985
Encana Corporation 4 Deep Panuke	Letter of Credit	70,000,000
ExxonMobil Canada Properties	Letter of Credit	42,108,000
FortisBC Huntingdon Inc.	Letter of Credit	115,754
Glenogle Energy Inc.	Letter of Credit	72,600
Great Lakes Pipeline Canada LTD.	Financial instrument cashed by the Board	12,190,000
Husky Oil Operations Limited	Letter of Credit	7,700,000
Ikkuma Resources Corp.	Surety Bond	300,000
ISH Energy Ltd.	Surety Bond	2,814,887
LBX Pipeline	Letter of Credit	3,070,000
Obsidian Energy Inc.	Letter of Credit	2,779,657
Omimex Canada, Ltd.	Letter of Credit	132,950
ONEOK Rockies Processing Company (Canada) Ltd.	Letter of Credit	132,000
Pembina Energy Services Inc.	Surety Bond	4,057,109
Pembina Prairie Facilities Ltd.	Letter of Credit	4,820,121
Pine Cliff Border Pipelines Limited	Letter of Credit	621,500
Pine Cliff Energy Ltd.	Letter of Credit	255,000
Resolute FP Canada Inc.	Letter of Credit	39,000
Shell Canada Products Limited	Letter of Credit	265,450
Shiha Energy Transmission Ltd.	Surety Bond	180,000
Spartan Energy Corp.	Letter of Credit	226,462

COMPANY	FINANCIAL INSTRUMENT	AMOUNT OF INSTRUMENT (IN DOLLARS)
SanLing Energy Ltd.	Letter of Credit	45,000
Steppe Petroleum Inc.	Letter of Credit	242,900
Strategic Transmission Ltd.	Letter of Credit	245,447
Sunoco Logistics Partners Operations GP LLC	Surety Bond	1,100,000
Tamarack Acquisition Corp.	Letter of Credit	43,980
TAQA North Ltd.	Letter of Credit	1,026,000
Terra Energy Corp.	Financial instrument cashed by the Board	74,375
Tundra Oil & Gas Limited for and on behalf of Tundra Oil & Gas Partnership	Letter of Credit	74,335
Venturion Oil Limited	Letter of Credit	112,287
Veresen Energy Pipeline Inc.	Surety Bond	2,500,000
Veresen NGL Pipeline Inc. (Empress Pipeline)	Letter of Credit	1,481,840
Whitecap Resources Inc.	Letter of Credit	920,713
Windmill Dream (transferred from Domtar)	Letter of Credit	213,097
Yoho Resources Inc.	Letter of Credit	50,000

Abandonment Funding

Companies using Trusts

This table lists all NEB-regulated companies that have a financial instrument on file with the NEB for the full amount of their abandonment cost estimate.

COMPANY	ABANDONMENT COST ESTIMATE (\$)	COLLECTION PERIOD (YEARS)	2017 CLOSE BALANCE (\$) – ACTUAL
2193914 Canada Limited	6,058,670	40	377,000
Alliance Pipeline Ltd.	309,970,000	40	20,798,360
Aurora Pipeline Company Ltd.	113,375	40	8,197
Centra Transmission Holdings Inc.	25,936,102	40	2,111,647

COMPANY	ABANDONMENT COST ESTIMATE (\$)	COLLECTION PERIOD (YEARS)	2017 CLOSE BALANCE (\$) – ACTUAL
Emera Brunswick Pipeline Company Ltd.	11,146,629	19.5	1,530,000
Enbridge Bakken Pipeline Company Inc., on behalf of Enbridge Bakken Pipeline Limited Partnership	9,345,715	25	1,125,000
Enbridge Pipelines (NW) Inc.	37,007,694	11	7,908,000
Enbridge Pipelines Inc.	1,115,490,005	40	80,181,000
Enbridge Southern Lights GP Inc. on behalf of Enbridge Southern Lights LP	100,790,292	40	6,857,000
Express Pipeline Ltd.	44,305,000	40	2,165,590
Foothills Pipelines Ltd.	197,869,000	30	18,123,000
Genesis Pipeline (Canada) Ltd.	3,114,576	40	257,096
Kinder Morgan Cochin ULC	26,385,000	19.5	3,191,760
Maritimes & Northeast Pipeline Management Limited	150,600,000	19.5	22,700,203
Montreal Pipe Line Limited	19,873,239	40	1,511,875
Niagara Gas Transmission Limited	6,229,841	40	392,000
NOVA Chemicals (Canada) Ltd.	388,860	40	36,326
Nova Gas Transmission Ltd.	2,184,840,000	30	195,300,000
Plains Midstream Canada ULC	52,711,652	40	5,233,000
Plains Midstream Empress Management Inc.	13,646,253	40	650,000
Pouce Coupé Pipe Line Ltd. (Pembina North LP)	7,485,502	5 and 15	27,361
Souris Valley Pipeline Limited	2,885,416	Trust fully funded up front	2,968,593
Spectra Energy Midstream Canada Partner Corporation	1,318,404	40	59,000
St. Clair Pipelines Management Inc.	1,253,355	40	90,076
TEML Westspur Pipeline Ltd.	32,270,392	25	5,300,000
Trans Mountain Pipeline Inc.	340,043,000	40	26,970,075

COMPANY	ABANDONMENT COST ESTIMATE (\$)	COLLECTION PERIOD (YEARS)	2017 CLOSE BALANCE (\$) – ACTUAL
Trans Quebec & Maritimes Pipeline (TQM) Inc.	102,533,000	25	10,158,000
TransCanada Keystone Pipeline GP Ltd.	235,992,000	25	10,900,000
TransCanada Pipelines Limited	2,530,212,000	25	304,719,000
Trans-Northern Pipelines Inc.	76,678,000	40	5,370,766
Union Gas Limited	101,163	Trust fully funded up front	103,779
Vector Pipeline Limited Partnership (Enbridge)	4,751,002	40	313,000
Westcoast Energy Inc. (Zones 1 and 2) (Gathering and Processing)	683,610,105	40	17,523,091
Westcoast Energy Inc. (Zones 3 and 4) (Transmission)	8,334,955,242	40	15,714,265

Appendix H

Financial Overview

The NEB is funded by Parliament through the Appropriations Act, with approximately 97 per cent of its costs recovered by the Federal government from the companies whose energy facilities are regulated by the NEB. Financial statements for cost recovery purposes are prepared annually and audited by the Office of The Auditor General. The table below provides an overview of NEB financial and human resources, as reported in the public accounts.

FISCAL YEAR (1 APRIL TO 31 MARCH)	EXPENDITURES (MILLION \$)	STAFF (FULL-TIME EQUIVALENTS)
2015-16	82.4	457.6
2016-17	84.6	474.5
2017-18	93.8	481.3

Appendix I

Acronyms and Definitions

ADR — Alternative Dispute Resolution

COGOA — Canadian Oil and Gas Operations Act

CVAs — Compliance Verification Activities

Line 3 — Enbridge Line 3 Replacement

IAMC — Indigenous Advisory Monitoring Committees

LMG — Land Matters Group

NEB — National Energy Board

NEBA — National Energy Board Act

OPR — Onshore Pipeline Regulations

OBDLs — Operation Beyond Design Limits

SCC — Supreme Court of Canada

TMEP — Trans Mountain Expansion Project

UAs — Unauthorized Activities

Core Responsibility

An enduring function or role performed by a department. The intentions of the department with respect to a Core Responsibility are reflected in one or more related Departmental Results that the department seeks to contribute to or influence.

Departmental Result Indicator

A factor or variable that provides a valid and reliable means to measure or describe progress on a Departmental Result.

Departmental Results Framework

Consists of the department's Core Responsibilities, Departmental Results and Departmental Result Indicators

Performance

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

Performance Indicator

A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

Performance Reporting

The process of communicating evidence based performance information. Performance reporting supports decision making, accountability and transparency.

Program

Individual or groups of services, activities or combinations thereof that are managed together within the department and focus on a specific set of outputs, outcomes or service levels.

Target

A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

