



National Energy
Board

Office national
de l'énergie

2006 ANNUAL REPORT

TO PARLIAMENT

Canada

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National Energy
Board



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Office of the Chairman

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20 March 2007

The Honourable Gary Lunn, P.C., M.P.
Minister of Natural Resources
580 Booth Street, 21st Floor
Ottawa, Ontario
K1A 0E4

Dear Minister:

Annual Report 2006

I am pleased to submit the Annual Report of the National Energy Board for the year ending 31 December 2006, in accordance with the provisions of Section 133 of the *National Energy Board Act*, R.S.C. 1985, c. N-7.

Yours truly,

A handwritten signature in cursive script, appearing to read 'Ken Vollman'.

Kenneth W. Vollman
Chairman

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NATIONAL ENERGY BOARD STRATEGIC PLAN 2007-2010

VISION

The NEB is an active, effective and knowledgeable partner in the responsible development of Canada's energy sector for the benefit of Canadians.

PURPOSE

We promote safety and security, environmental protection and efficient energy infrastructure and markets in the Canadian public interest^[1] within the mandate set by Parliament in the regulation of pipelines, energy development and trade.

VALUES

At the NEB we strive for excellence in all that we do. Excellence at the NEB is driven by organizational and personal commitment to three key corporate values:

- **Integrity:** We are fair, transparent, and respectful.
- **Regulatory Leadership:** We are responsive, proactive and innovative.
- **Accountability:** We support and hold each other accountable to deliver timely, high quality results in the Canadian public interest.

STRATEGIES

- Improve regulatory processes
- Enhance NEB capacity and culture
- Inform Canadians on energy markets

[1] The public interest is inclusive of all Canadians and refers to a balance of economic, environmental and social interests that changes as society's values and preferences evolve over time. As a regulator, the Board must estimate the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.



NATIONAL ENERGY BOARD GOALS

GOAL 1

NEB-regulated facilities and activities are safe and secure, and are perceived to be so.

GOAL 2

NEB-regulated facilities are built and operated in a manner that protects the environment and respects the rights of those affected.

GOAL 3

Canadians benefit from efficient energy infrastructure and markets.

GOAL 4

The NEB fulfills its mandate with the benefit of effective public engagement.

GOAL 5

The NEB delivers quality outcomes through innovative leadership and effective support processes.

As partners in the responsible development of Canada's energy sector, the NEB works on behalf of Canadians to ensure they reap the benefits from an efficient, safe and reliable energy system.

Our decisions are made in the public interest and are based on respect for the rights of those affected, concern for our environment and a commitment to safety and security.

To make decisions that balance economic, environmental and social considerations, the Board relies on the collective skill and experience of a team of professionals: engineers, economists, environmental specialists and other technical experts and challenges them to seek out solutions that are practical and innovative.

We strive for excellence and we demonstrate an unwavering commitment to our values: **INTEGRITY, REGULATORY LEADERSHIP AND ACCOUNTABILITY.** Canadians can count on us to be fair and transparent; to design regulatory approaches that are responsive and proactive; and, to hold each other accountable in everything that we do.





“The National Energy Board is working cooperatively with other agencies to coordinate and streamline regulatory processes, develop guidelines for processing times, and reach out to public interest groups.”

CHAIRMAN'S LETTER

DEAR STAKEHOLDERS:

The theme for this year's annual report is *Partners in Responsible Development*. I'd like to take a moment to explain what we mean by that. The National Energy Board believes that in a broad sense we are partners with Canadians in the responsible development of energy infrastructure. Energy development cannot, and should not, be viewed in isolation from the potential social and environmental impacts it may have. The Board prides itself in listening to and communicating with all of our stakeholders to ensure we understand their perspectives and that understanding then guides us in our decisions. The responsible development of energy infrastructure serves the Canadian public interest by providing safe, reliable energy to heat our homes, fuel our transportation and power our economy.

For anyone with an interest in energy-related matters, it will come as no surprise to hear that 2006 was a particularly busy year for the National Energy Board.

We received hundreds of applications last year; ranging from relatively simple requests for an export order to complex applications for new, large-scale infrastructure projects. In some cases, public hearings were necessary and in 2006, the number of public hearing days, including those for the Mackenzie Gas Project's Joint Review Panel, climbed to 141 – six times the previous year's tally.

Nearly a third of these hearing days were devoted to the Mackenzie Gas Project; an application to build a major pipeline from the Mackenzie Delta down to Alberta to carry northern gas to both domestic and export markets. We completed the scheduled portion of the hearing on 15 December 2006 – the culmination of a year-long process that included public hearings in 14 communities in the Northwest Territories and one community in northern Alberta, as well as a ruling on a motion by the Mackenzie Explorers Group.

In spite of the dramatic increase in the amount and complexity of applications that stretched our resources to the limit, we have had some real successes. We were able to successfully substitute our environmental assessment process for that of the Canadian Environmental Assessment Agency (CEAA) in a pilot project. Our new risk-management approach to applications was implemented towards the end of 2006 with great success. We also implemented comprehensive service standards, which further strengthens our culture of service and gives our stakeholders increased certainty.

In 2006, we remained committed to providing Canadians with relevant and objective energy information, statistics and advice. In January, we launched a new consumer-focused section on our website dedicated to providing factual information about energy pricing. Several Energy Market Assessments were released in 2006, covering topics such as natural gas deliverability, emerging technologies in electricity generation and the opportunities and challenges inherent in the development of Canada's oil sands. Consultation and work also continued on the *Energy Futures Report*, our flagship publication. Scheduled for release in the fall of 2007, the report will present a comprehensive energy outlook for the period 2005 to 2030.

HOT ENERGY CLIMATE

There is no doubt that when the price of energy goes up, so too will interest in finding new ways to bring that energy to market.

High crude oil prices and tight energy markets attracted intense interest from industry and investors this year. In July 2006, the price of West Texas Intermediate crude oil soared to a record US\$78.40 a barrel before settling at the 2006 average price of US\$66.24 per barrel - a 17 per cent increase over the 2005 average. More than 23,000 oil and gas wells were drilled; another record that signifies the industry's frenetic pace.

Canadian natural gas production is expected to remain largely unchanged over the next three years; however, natural gas market dynamics are changing. Demand is growing as a result of rising natural gas use by Alberta's oil sands projects and increasing demand for natural gas-fired electric power generation, especially in Ontario.

Canada's electricity supply met demand in 2006. While interest continues to grow in renewable resource development, emerging technologies such as wind, small hydropower projects and biomass can represent only part of a diversified solution designed to increase electricity supply.

CLEAR AND EFFICIENT REGULATORY PROCESSES

Despite an exceptionally busy year that brought complex projects and issues before the Board, we made significant strides towards achieving our goal to develop clear, predictable and efficient regulatory processes. During 2006, we fully implemented a program of service standards that categorizes and tracks all applications. As one measure of regulatory clarity, applicants are advised of the category in which their application falls, and the expected date of the Board's decision.

Efficient application assessment, processing and hearing procedures have always been important to industry and regulators. One of the ways we have been working to streamline our process is through our integrated compliance approach to applications. In the past, the application assessment was the only tool available for the NEB to ensure regulatory compliance throughout the lifecycle of a pipeline. By integrating information obtained from the application, operations and compliance activities, the NEB can significantly reduce the time required to process applications. This new approach targets the most efficient, effective regulatory oversight for the project based on its complexity, the risk involved and the previous record of the applicant.

The NEB strives to reduce duplication and fragmentation of the decision-making process whenever possible. When the Emera Brunswick Pipeline Company applied for authorization to construct and operate the proposed Brunswick Pipeline, we successfully applied to substitute the NEB hearing process for the process normally undertaken by the Canadian Environmental Assessment Agency. This step greatly facilitated the process for the parties involved and avoided duplication of effort by the NEB and the CEA Agency, both of which have a mandate to undertake environmental assessments. We believe that the 'substitute solution' is well aligned with the federal government's focus on regulatory streamlining and the National Energy Board is pleased to partner with other federal agencies, like the CEA Agency whenever feasible.

We are also seeking approval for a participant funding program. We recognize that for concerned Canadians and non-profit organizations to effectively participate in the NEB's quasi-judicial regulatory processes, some form of funding is necessary. Participant funding would support qualified groups and individuals with funding to cover such things as travel costs and fees for expert witnesses.

CULTIVATING OUR CORPORATE CULTURE

Looking back over the year, I realize that none of these achievements would have been possible without the commitment and competence of our staff who worked diligently to engage the public in the decision-making process, to meet or exceed our service standards and to introduce efficiencies while maintaining the integrity of the regulatory process. One of the side effects of a robust energy market is an increased need for staff with unique skills and the technical expertise necessary to manage the challenges of innovative projects such as applications for arctic pipelines, pipeline conversions, new pipeline services and new connections to planned LNG terminals. Towards the end of the year, recognizing the sustained increase in workloads and salary discrepancies in a very heated market, the government approved a special market allowance and performance pay for NEB employees.

In July, five new Board Members joined the NEB bringing with them a vast array of experience and skill in law, economics, regulatory affairs, the environment, and aboriginal issues. I would like to take this opportunity to acknowledge our departing Board Members: Carmen Dybwad, Deborah Emes,

Patricia McCunn Miller and Elizabeth Quarshie. On behalf of my colleagues, I would like to thank them for their many contributions to the National Energy Board during their years of service.

Looking ahead, the Board foresees significant challenges related to our ability to sustain our capacity to serve the public interest in a highly competitive, dynamic energy economy. Our workload is not only increasing in volume, but also in complexity. We expect the steady pace of investment in Canada's energy sector will continue and we believe that a comparable investment in our staff and resources will be central to ensuring the Board remains an active, effective and knowledgeable partner in the responsible development of Canada's energy industry.



KENNETH W. VOLLMAN
Chairman, National Energy Board





OUR ROLES AND RESPONSIBILITIES

A LEADER IN ENERGY REGULATION

The National Energy Board (NEB or the Board) is an independent federal agency that promotes safety and security, environmental protection and efficient energy infrastructure and markets in the Canadian public interest within the mandate set by Parliament for the regulation of pipelines, energy development and trade. Established in 1959, the Board is funded 90 per cent by the energy industry it regulates and 10 per cent by government. The Board reports to Parliament through the Minister of Natural Resources.

The main functions of the NEB are established in the *National Energy Board Act* (NEB Act) and include regulating:

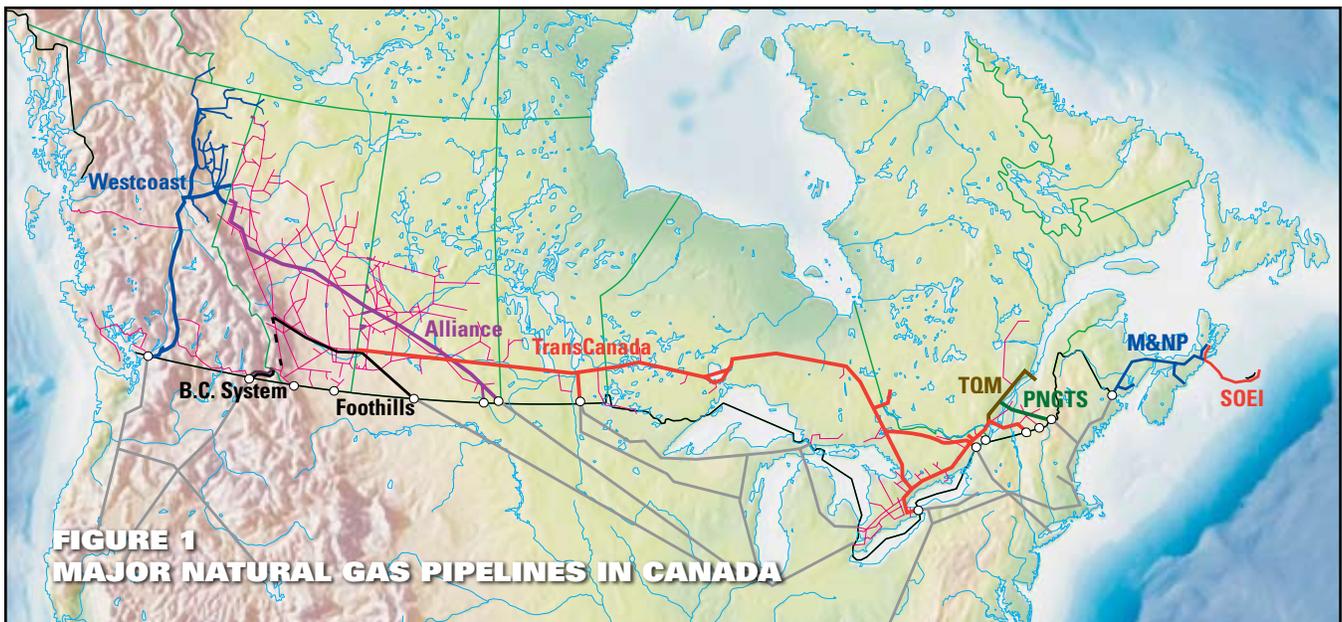
- the construction and operation of pipelines that cross international or provincial borders, as well as pipeline tolls and tariffs;
- the construction and operation of international power lines and designated inter-provincial power lines;
- natural gas imports and exports, crude oil, natural gas liquids, electricity exports; and,
- oil and natural gas activities on frontier lands and offshore areas not covered by federal or provincial management agreements.

The NEB regulates approximately 45 000 kilometres of pipelines across Canada. This network includes large diameter, high-pressure natural gas pipelines, crude oil and oil products pipelines, shorter small-diameter pipelines, and a number of commodity pipelines. In 2006, these pipelines shipped over \$110 billion worth of crude oil, petroleum products, natural gas liquids and natural gas at an estimated transportation cost of \$4.7 billion.

Additionally, the Board has regulatory responsibilities under the *Canada Oil and Gas Operations Act* (COGO Act) and under certain provisions of the *Canada Petroleum Resources*

Act (CPR Act) for crude oil and natural gas exploration and production on frontier lands and certain areas offshore Canada's east, west and arctic coasts (Figure 3).

The NEB has environmental responsibilities under the *Canadian Environmental Assessment Act* (CEA Act) and the *Mackenzie Valley Resource Management Act*. In addition, certain Board inspectors are appointed Health and Safety Officers by the Minister of Labour to administer Part II of the *Canada Labour Code* as it applies to facilities and activities regulated by the Board.





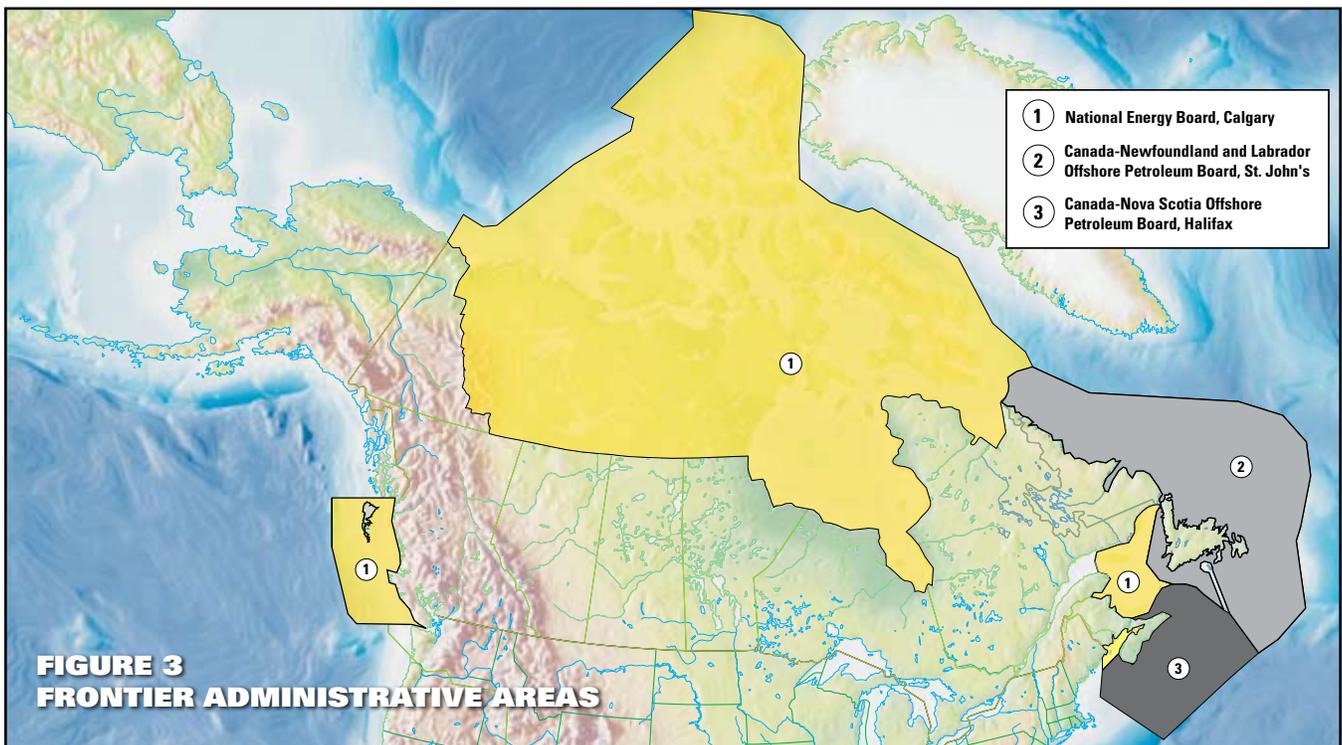
The Board also monitors all aspects of energy supply, demand, production, development and trade that fall within the jurisdiction of the federal government and provides energy information. The NEB's mandate also includes providing expert technical advice to the Canada-Newfoundland and Labrador Offshore Petroleum Board, the Canada Nova Scotia Offshore Petroleum Board, Natural Resources Canada, and Indian and Northern Affairs Canada.

The NEB may, on its own initiative, hold inquiries, study specific energy matters and prepare reports for Parliament, the federal government and the general public. Under the NEB Act, the Board may provide advice to the Minister of Natural Resources Canada upon the Minister's request. In response to a request from the Minister with respect to the regulation of small interprovincial cross-border pipelines, the Board advised the Minister that it is pursuing a streamlining initiative which should better match application

and assessment requirements to the complexity and risks associated with facility applications, thereby reducing the regulatory burden.

The NEB is a court of record and has the powers of a superior court to compel attendance at hearings, examine witnesses under oath, inspect documents and enforce its orders. The NEB Act provides for up to nine permanent Board Members assisted by a staff of approximately 300 that includes, among others, financial and market analysts, environmental and lands specialists, socio-economists, engineers, geologists and lawyers. Public hearings are typically conducted by three Board Members, who constitute a quorum, with one acting as the Presiding Member. The Board's regulatory decisions and the reasons for them are issued as public documents.

More information on the background and operations of the NEB may be found at the Board's website, www.neb-one.gc.ca.



The NEB regulates frontier regions in northern Canada and offshore the east, west and arctic coasts.



**STRIVING FOR
REGULATORY EXCELLENCE**

During 2006, high energy prices sent strong signals that Canadians need to use energy more efficiently and develop new sources of supply. In order to respond effectively, the energy industry requires a clear policy framework and timely responses from regulators and government. The Board believes that the development of infrastructure by private interests within a competitive marketplace serves the public interest, but regulatory bodies must address potential economic, social and environmental impacts not fully dealt with by markets. In carrying out this mandate, the NEB pursues a regulatory strategy that is based on goal-oriented regulations, clear, predictable regulatory processes, quality management systems and cooperation with other government agencies and departments.

REGULATORY ACTIVITY

In 2006, the NEB considered applications for new pipeline facilities, tolls and tariffs filings, international power lines, activities on frontier lands, and requests for changes to short-term export and import orders. The Board continued to monitor, assess and enforce compliance within the regulated industry through a comprehensive program of inspections and audits. The NEB also prepared reports on current and future energy market developments in Canada. These activities are summarized below:

Certificates, Orders, Permits and Applications approved in 2006

- 585 Certificates, Orders, Permits and Letter approvals

Construction and operation of pipelines and power lines under Parts III and III.1 of the NEB Act

- 26 Orders and Permits issued

Pipeline tolls and tariffs under Part IV of the NEB Act

- 15 Orders issued

Exports and imports of natural gas, crude oil, natural gas liquids and electricity under Part VI of the NEB Act

- 388 Orders and Permits issued

Exploration and production activity in frontier areas under the COGO Act

- 38 Applications approved

Activity in frontier areas under the CPR Act

- 2 Significant Discovery Declarations

Proceedings

- 10 Public hearings
- 141 Public hearing days

Compliance Monitoring

- 23 Inspections undertaken during construction
- 10 Inspections of operating pipelines and facilities
- 5 Incidents resulting in an on-site response by NEB personnel
- 42 Workplace inspections under the Canada Labour Code
- 6 Security Management Program reviews (joint assessments with the Alberta Energy and Utilities Board)
- 2 Financial audits

Landowner Complaint Resolution Program

- 20 Landowner files considered

Energy Market Information

During 2006, the NEB published several publications and statistical reports related to energy commodities. For a complete listing, see page 37 of this report.

OUR VISION

The NEB is an active, effective and knowledgeable partner in the responsible development of Canada's energy sector for the benefit of Canadians.

REGULATORY CHANGES

The NEB's goal-oriented regulations are a combination of prescriptive and performance-based directives supported by standards and non-mandatory guidance notes. The Board has found that goal-oriented regulations promote increased industry responsibility and flexibility in meeting NEB regulatory requirements.

In 2006, the Board worked with the Department of Justice on several new or changing regulations, including:

- preparation of the new *Damage Prevention Regulations* and the updated *Canada Oil and Gas Diving Regulations* being published for comment in Part I of the *Canada Gazette*;
- amendments to the *National Energy Board Cost Recovery Regulations* which involved modifying the cost recovery period to match the NEB fiscal year (1 April to 31 March) and adding provisions to address electricity industry concerns; and,
- development of new, goal-oriented *Canada Oil and Gas Drilling and Production Regulations* which amalgamate the existing *Canada Oil and Gas Drilling Regulations* and

the *Canada Oil and Gas Production and Conservation Regulations*. These regulations are being developed in cooperation with Natural Resources Canada, Indian and Northern Affairs Canada, the Canada-Newfoundland and Labrador Offshore Petroleum Board, the Canada Nova Scotia Offshore Petroleum Board, the Nova Scotia Department of Energy and the Newfoundland and Labrador Department of Natural Resources. The objective is to ensure common regulatory approaches for activities in offshore regions, the Northwest Territories and Nunavut.

INDUSTRY STANDARDS

The NEB, in partnership with industry, government and stakeholder groups, participated in several initiatives focused on developing consensus-based standards, best practices and common approaches to safety, security and environmental issues. As part of this work, NEB staff belong to several technical committees that develop and update Canadian Standards Association pipeline standards. The NEB is also a member of the Canadian Pipeline Environment Committee and the Canadian Association of Members of Public Utility Tribunals.





The National Energy Board received applications in 2006 to construct and operate more than 500 kilometres of new pipeline.



**PARTNERS IN
RESPONSIBLE *DEVELOPMENT***

“At the NEB we work to streamline our regulatory processes and scope our application assessments to match the complexity and risk represented by each facility application.”

Kenneth Vollman, Chair
National Energy Board

APPLICATIONS IN 2006

Responsible development occurs in the public interest by working collaboratively with industry, government and other agencies to streamline regulatory processes, reduce or eliminate duplication of effort and expedite applications where appropriate. As the Board works towards greater regulatory efficiency, the Board remains committed to its primary purpose: *We promote safety and security, environmental protection and efficient energy infrastructure and markets in the Canadian public interest.*

Depending on the nature of the application and the level of public interest, the Board may deal with an application by way of an oral or written hearing, or through a non-hearing process.

In 2006 the Board received 192² applications from regulated companies, including 38 applications under the COGO Act related to exploration and production activity in frontier areas. The majority of these applications did not require a

public hearing because they related to matters such as routine improvements to the operation of existing regulated facilities. However, the number and complexity of these applications climbed significantly in 2006 – a trend that is expected to continue.

THE HEARING PROCESS

The Board holds hearings for infrastructure applications, such as pipelines or international and inter-provincial power lines, for major toll applications and occasionally for the export and import of energy. In alignment with our commitment to fairness, transparency and respect, hearings follow the principles of natural justice. Hearing procedures are designed in the interest of fairness and all records of communication with the applicant regarding the substance of the application, third parties or any application-related submissions are placed on the public record and are available to all interested parties.

(2) This number does not include applications for short-term export and import orders.

For large infrastructure applications, such as pipelines, the Board typically holds oral hearings in the vicinity of the proposed facilities. At oral hearings, witness panels are put forward for questioning by other participants in the hearings. Parties who do not wish to participate as intervenors are provided the opportunity to present written statements or provide an oral statement, where permitted. Following the evidentiary portion of the hearing, the Board hears argument based on the evidence on the record. The hearing is then usually adjourned and the Board makes its decision.

Decisions are accompanied by written Reasons for Decision. For infrastructure applications, a certificate is issued if the Board's recommendation for approval is accepted by the Governor in Council. The certificate could include conditions addressing various issues that were raised during the hearing.

THE NON-HEARING PROCESS FOR FACILITIES APPLICATIONS

When a company submits an application for the construction of a pipeline less than 40 kilometres long or to modify or add facilities to existing pipeline systems, the Board adopts a non-hearing facilities application process to respond to the application. Generally, these applications raise little public concern; however, the Board may conduct a public hearing in situations where there is public concern.

When an application is received, an initial decision is made to classify the project into one of three service standards categories: A, B or C. Applications are assigned to a category based on the complexity and completeness of the application, and the interest of third parties. Applications assigned to Category A are generally routine matters that generate little public concern. A Category B application may include moderately complex issues and may also generate public interest. Category C applications are relatively rare and can be precedent setting. The target is to reach a regulatory decision 80 per cent of the time within 40 days (Category A), 90 days (Category B) and 120 days (Category C) of receiving a complete application.

Certain projects may be subject to an environmental assessment under the *Canadian Environmental Assessment Act* (CEA Act).

Even in a situation where there is no hearing, the Board still adheres to the rules of natural justice. At specified points in the process, the public may provide comments to the Board, which would also be placed on the public record. Both the hearing and non-hearing processes are designed and driven by two key NEB values: *We are responsive, proactive and innovative and we support and hold each other accountable to deliver timely, high quality results in the Canadian public interest.*

INNOVATIVE PILOT PROJECT

After months of development, the NEB applied its lifecycle compliance management approach to the Nexen Cuthbert Pipeline application for approval to construct and operate a short natural gas pipeline at the Alberta-Saskatchewan border.

In the past, the NEB mainly referred to a company's original application when assessing regulatory compliance throughout the lifecycle of a project. Although the Board would gather a significant amount of knowledge about a company's programs during compliance activities once a facility or pipeline was operational, this knowledge was not taken into account when the same company submitted subsequent applications. In processing the Nexen Cuthbert Pipeline Section 58 application, the NEB pilot project team drew on all existing knowledge of the company to ensure that the

proposed facility would be designed, built and operated in a manner fully compliant with the regulations and aligned with the Board's goals.

By integrating information obtained from application, operations and compliance activities and by adopting a risk-based approach, the pilot project team confirmed the fundamental principles of the integrated compliance and life cycle approach. This approach ensured that matters of safety, environmental protection and economic efficiency were properly addressed.

Another important outcome was a significant reduction in the time required to assess this application to an unprecedented 16 days.

In recognition of their revolutionary approach and ultimate success in improving regulatory efficiency, the Nexen Cuthbert pilot project team was selected for the 2006 Chairman's Award.

If an application is approved and deemed to be in the Canadian public interest, the Board will authorize the project through an order, which may include conditions the applicant must fulfill during project development. The Board may then use a variety of post-decision tools, such as inspections, to ensure compliance with applicable regulations, company commitments and imposed conditions.

APPLICATION HIGHLIGHTS – PIPELINE APPLICATIONS

Mackenzie Gas Project

In October 2004, the NEB received five applications from Imperial Oil Resources Ventures Limited, Mackenzie Valley Aboriginal Pipeline Limited Partnership, Imperial Oil Resources Limited, ConocoPhillips Canada (North) Limited, ExxonMobil Canada Properties and Shell Canada Limited for the construction and operation of the more than \$7 billion Mackenzie Gas Project in northern Canada.

Throughout 2005 the Board held information sessions in many communities along the Mackenzie Valley, across the Northwest Territories and in northern Alberta. In December 2005, the Board held pre-hearing planning conferences in Inuvik, Yellowknife, Fort Good Hope and Fort Simpson to obtain public input into the hearing process. In addition to participating in discussions, participants provided written and phone-in comments.

Key events, decisions and rulings

Beginning in Inuvik on 25 January 2006, the Board carried out the evidentiary portion of its public hearing in 14 communities in the Northwest Territories and northern Alberta for a total of 47 hearing days. This involved the presentation of oral statements by members of the communities and the cross-examination of witnesses on their filed evidence.

On 2 June 2006 the Board heard oral argument in Yellowknife on a Motion by the Mackenzie Explorers Group (MEG) that the Mackenzie Gathering System and Mackenzie Valley

Pipeline be a single pipeline subject to regulation in its entirety under Part IV of the NEB Act, and that Imperial be required to prepare, file and serve the toll principles and tariffs that would be applicable to its services on the combined system. The Board issued its ruling on 10 July 2006 denying MEG's motion. This ruling is being appealed to the Federal Court of Appeal by the Mackenzie Explorers Group. The Board completed the scheduled portion of its hearing on 15 December 2006 in Inuvik.

The Board's hearing process is coordinated with the Environmental Impact Review of the Mackenzie Gas Project by the Joint Review Panel. The Joint Review Panel for the Mackenzie Gas Project is a seven-member, independent body that will evaluate the potential impacts of the project on the environment and lives of the people in the project area. NEB Board Member Rowland Harrison was appointed as a member of the Joint Review Panel in 2004. The Board awaits the release of the Joint Review Panel Report and the Board Member's report and recommendations before completing its hearing process issuing its Reasons for Decision on the Mackenzie Gas Project.

On 10 November 2006 Justice Phelan of the Federal Court of Canada issued his judgment in a court challenge initiated by the Dene Tha' First Nation concerning the Mackenzie Gas Project. The judgment required the respondents, including the Minister of the Environment, Minister of Fisheries and Oceans, Minister of Indian and Northern Affairs Canada and the Minister of Transport to consult with the Dene Tha' in respect of the Mackenzie Gas Project, including the downstream connecting facilities. These connecting facilities would link natural gas supplies from the proposed Mackenzie Pipeline into the national pipeline grid. The judgment stayed the Joint Review Panel hearing process in any matters involving the downstream connecting facilities or the territory in which the Dene Tha' First Nation have or have asserted Aboriginal or treaty rights.

Throughout 2006, the NEB continued to partner with the Northern Gas Project Secretariat, whose mandate entails supporting and coordinating public hearing processes.

“I have been increasingly impressed in the last six to 12 months at the efforts of the National Energy Board ... to respond to this growing wave of applications and filings.”

**Ian Anderson, President
Kinder Morgan Canada**

PROPOSED MACKENZIE VALLEY GAS PROJECT



Proposed to be operational by the end of 2011, the 194-kilometre natural gas pipeline would transport an average 34 million cubic metres (1.2 billion cubic feet) of natural gas per day.

The Secretariat is based in Yellowknife, with regional offices in Inuvik, Norman Wells and Fort Simpson. It provides the forum through which agencies responsible for the environmental and regulatory assessment of the Mackenzie Gas Project, such as the NEB, to develop cooperative, harmonized approaches, while respecting the need for their review processes to be conducted independently.

**Kinder Morgan Canada
(Formerly Terasen Pipelines (Trans Mountain) Inc.)
TMX Anchor Loop Project**

On October 26 2006, the NEB approved an application by Terasen Pipelines (Trans Mountain) Inc. for the TMX - Anchor Loop Project. The TMX Anchor Loop Project includes a pipeline loop and associated facilities extending from Hinton, Alberta to a location near Rearguard, British Columbia. The project generally parallels the existing Trans Mountain right of way through Jasper National Park and Mount Robson Provincial Park.

The project includes the construction and operation of 7.6 kilometres of 762-millimetre pipeline from west of Hinton, Alberta to the Hinton Pump Station and 151 kilometres of 914-millimetre pipeline from the Hinton Pump Station to a location near Rearguard, B.C. The project also includes the installation of two new electric drive pump stations.

The project will increase Trans Mountain pipeline's capacity by 6 360 cubic metres (40 000 barrels) per day of oil by the third quarter of 2008.

The project required an environmental screening under the *Canadian Environmental Assessment Act*. To this end, the Board worked with other federal and provincial departments with an environmental assessment responsibility to create a coordinated environmental screening process that would meet the needs of each in their respective environmental assessments. The Board's Reasons for Decision is available at www.neb-one.gc.ca.

**Emera Brunswick Pipeline Company Ltd.
Brunswick Pipeline Project**

On 23 May 2006, Emera Brunswick Pipeline Company Ltd. (Emera) applied to the NEB for a Certificate of Public Convenience and Necessity pursuant to section 52 of the NEB Act for authorization to construct and operate the proposed Brunswick Pipeline. Emera also applied pursuant to Part IV of the NEB Act for approval of the tolls to be charged and for designation as a Group 2 company under the NEB Act.

The proposed Brunswick Pipeline consists of approximately 145 kilometres of 762-millimetre pipeline extending from the Canaport™ LNG Terminal at Mispic Point, New Brunswick to the international border near St. Stephen, New Brunswick. Capacity of the proposed facility is approximately 23.16 million cubic metres (817.6 million cubic feet) per day of natural gas. The capital cost of the proposed project is estimated at \$350 million. The proposed Brunswick Pipeline is planned to be operational by the end of 2008.

The Brunswick Pipeline Project was referred to a review panel pursuant to section 25 of the *Canadian Environmental Assessment Act*. Pursuant to section 43 of the CEA Act, the NEB was permitted to use its public hearing process as a substitution of an environmental assessment by a review panel. The NEB hearing process established for the review was conducted as a pilot substitute for an environmental assessment by a review panel as provided for under section 43 of the CEA Act.



Located further west than Vancouver and within the Arctic Circle, the Mackenzie Delta spans approximately 14 250 square kilometres, an area more than twice the size of Prince Edward Island.

The Board held information sessions in Saint John in April, June and October 2006. The oral public hearing was held in Saint John from 6 November 2006 to 20 November 2006. A written final argument process concluded on 22 December 2006. The NEB's decision on the proposed pipeline is pending.

TransCanada PipeLines Limited (TransCanada) and TransCanada Keystone Pipeline GP Ltd. Keystone Oil Pipeline Project

On 5 June 2006, TransCanada PipeLines Limited (TransCanada) and TransCanada Keystone Pipeline GP Ltd. (Keystone) applied to the NEB for leave to transfer certain pipeline facilities that are currently part of the TransCanada Mainline natural gas transmission system from TransCanada to Keystone, and related orders. A public hearing on the application was held in October and November 2006. It is Keystone's intention, to convert the transferred natural gas facilities to crude oil service for use in its proposed Keystone crude oil pipeline project. The Board will release its decision in 2007.

On 12 December 2006, Keystone submitted a facilities application for the Canadian portion of its proposed Keystone project, including the conversion of the natural gas facilities to crude oil service. A public hearing in respect of the application is scheduled to begin on 4 June 2007.

**EnCana Corporation
Deep Panuke Offshore Gas Development Project**

EnCana filed a Project Description for the Deep Panuke Offshore Gas Development Project on 29 August 2006, which initiated the environmental assessment coordination.

On 9 November 2006, EnCana applied to the NEB for a Certificate of Public Convenience and Necessity pursuant to section 52 of the NEB Act authorizing EnCana to construct and operate:

- i) an approximately 176-kilometre, 559-millimetre natural gas pipeline from the Deep Panuke mobile offshore production unit located about 250 kilometres southeast of Halifax to a point of interconnection with facilities owned and operated by Maritimes and Northeast Pipeline near Goldboro, Nova Scotia.
- ii) necessary custody transfer facilities located at the interconnection of the Deep Panuke Pipeline with facilities operated by Maritimes and Northeast Pipeline, as well as other monitoring and related equipment necessary to operate the Deep Panuke Pipeline.

The pipeline would be designed to transport up to 8.5 million cubic metres (300 million cubic feet) per day of sweet natural gas.

SUBSTITUTION STREAMLINES ENVIRONMENTAL ASSESSMENT PROCESS

On 4 May 2006, the NEB's request to substitute its hearing process for the Emera Brunswick Pipeline Project environmental assessment review panel was approved by the Minister of the Environment.

The NEB and its federal partners are responsible for ensuring that the environmental assessment meets the requirements set out in the scoping document. This is the first application of the substitution provisions in the *Canadian Environmental Assessment Act* since the proclamation of the original Act in 1995.

"Substitution of the NEB hearing process will allow us to be more efficient and effective in delivering federal environmental assessments for large facilities applications,"

said Kenneth Vollman, NEB Chairman and CEO. "Our administration requirements will be simplified, duplication of government effort will be virtually eliminated and the duration of the environmental assessment will be significantly reduced. If this trial run is considered successful, we can expect further opportunities to demonstrate the quality of the NEB environmental assessment process."

NEB staff worked closely with the Canadian Environmental Assessment Agency and other federal government departments to design a substituted process that would meet the needs of the public, industry and government agencies involved in the Emera Brunswick Pipeline application.

To avoid any duplication or confusion generated by separate hearings, the NEB coordinated its process with the Canada Nova Scotia Offshore Petroleum Board (CNSOPB) and will hold concurrent hearings before a CNSOPB-appointed commissioner and NEB Member Kenneth Bateman, who was appointed under section 15 of the NEB Act. The commissioner and NEB member will write a joint Environmental Report to be used by the Responsible Authorities, in preparing the Comprehensive Study Report under the CEA Act. The hearings will begin on 5 March 2007.

Enbridge Gateway Project Gateway Pipeline Inc.

On 1 November 2005, Gateway Pipeline Inc. (Gateway) submitted a Preliminary Information Package to the NEB, the Canadian Environmental Assessment Agency and relevant federal agencies.

The proposed project includes the construction and operation of an export oil pipeline and an import condensate pipeline along an approximately 1 150-kilometre right of way between an inland terminal near Edmonton, Alberta and a marine terminal near Kitimat, British Columbia. Gateway also proposes to construct and operate a marine terminal in Kitimat at tidewater to accommodate the transfer of crude oil and condensate into and out of tankers. The estimated capital cost of the proposed project is \$4 billion.

On 29 September 2006, the Minister of Environment announced that the review process would be undertaken by a Joint Review Panel between the NEB and the Minister of Environment. A draft Joint Review Panel Agreement was issued for a public comment period. Comments have been received on the draft Agreement, but it has not been finalized.

On 27 November 2006, the Board and the Minister of Environment received a letter from Gateway stating that, pending further commercial progress on the project, Gateway had decided to delay its anticipated in-service date from 2012 to 2014 and asked that the Environmental Assessment review process be delayed. Given this delay the NEB, on behalf of the Responsible Authorities, sent a letter to the Minister of the Environment on 18 December 2006 indicating that the Responsible Authorities would not be exercising any power nor performing any duty or function of the *Canadian Environmental Assessment Act* in respect to the proposed project at this time.

TOLLS AND TARIFFS APPLICATIONS

Applications carried over from 2005

Coral Energy Canada Inc.

Modifications to the FT-RAM Pilot

RHW-2-2005

In January 2005, Coral Energy Canada Inc. (Coral) applied to the Board to modify the Firm Transportation Risk Alleviation Mechanism pilot, a service enhancement proposed by TransCanada PipeLines Limited for its Mainline. This pilot program allows long-haul Firm Transportation shippers to apply unused Firm Transportation demand charges against their cost of interruptible transportation service. The Board approved Coral's application in February 2006 and directed TransCanada to modify its Mainline Transportation Tariff to reflect this decision.

WHAT ARE TOLLS AND TARIFFS?

Tolls are the prices charged by a pipeline company for transportation and other services on its system and can vary from year to year as costs and circumstances change. Tariffs describe the terms and conditions under which the services of a pipeline are offered or provided, including the tolls, rules, regulations and practices relating to specific services. Tolls and tariffs for major pipelines are decided either through a public hearing process or through negotiations between pipeline companies and shippers. All negotiated settlements must be approved by the NEB.

To improve the effectiveness of the regulatory process, the Board supports the use of negotiated settlements as an alternative to toll hearings. Negotiated settlements have contributed to a significant reduction in the time and money spent addressing cost of service issues in public hearings. Parties involved report that the use of task forces and settlements has increased collaboration between companies and their shippers and resulted in a better alignment of interests. Other benefits include potential incentives for cost control and performance improvement standards which can also be part of agreements. As well, the tendency for settlements to have terms that are longer than an adjudicated decision provides greater predictability and stability.

Chevron Canada Limited, Chevron Standard Limited and Neste Canada Inc.

**Applications for Priority Destination
MH-2-2005**

In January 2005, the Board received two applications from Chevron Canada Limited, Chevron Standard Limited and Neste Canada Inc. (Chevron) for orders designating Chevron's refinery at Burnaby, British Columbia a priority destination on the Terasen Pipelines (Trans Mountain) Inc. pipeline system for the unapportioned delivery of crude oil and isooctane from Edmonton, Alberta.

In 2006, the Board allowed the two applications to be consolidated into one, dealt with several motions and scheduled a hearing for 27 March 2006.

On 13 March 2006, Chevron confirmed they were prepared to withdraw the application if the Board approved certain revisions to the Trans Mountain tariffs (Petroleum Tariff No. 61 and Interim Refined Petroleum Tariff No. RP 29) that had been filed on 8 March 2006 by Kinder Morgan Canada Inc. On the basis of the Board's 15 March 2006 letter regarding the proposed tariff revisions, and the understanding with Kinder Morgan and the other shippers that the tariff changes approved by the Board would remain in place until Trans Mountain's Pump Station Expansion was in service, Chevron withdrew its application before the hearing began.

Centra Transmission Holdings Inc.

**Application for Revised Tolls
RHW-3-2005**

On 5 August 2005, Centra Transmission Holdings Inc. (Centra) filed an application with the Board seeking increased tolls effective 1 August 2005. Following an informal process undertaken by Centra with its shippers, the shippers asked the Board to initiate a more formal process. On 25 November 2005, the Board established a written proceeding to address shippers' concerns. On 23 March 2006, the Board issued its RHW 3 2005 Reasons for Decision that included increases of 32 per cent to Centra's domestic toll and 35 per cent to its export toll.

Applications Received in 2006

Kinder Morgan Canada Inc.

Proceeding Regarding Implementation of the Westridge Dock Premium on Terasen Pipelines (Trans Mountain) Pipeline System

T099-2006-01

On 8 March 2006, Kinder Morgan Canada Inc. filed Petroleum Tariff No. 61 and Interim Refined Petroleum Tariff No. RP 29 for its Terasen Pipelines (Trans Mountain) Pipeline system. The new tariffs included revisions to the procedure for allocating crude oil nominations into the system for deliveries to Trans Mountain's marine terminal for export



The Brunswick Pipeline Project Panel, from left to right: Kenneth Bateman, Sheila Leggett and Strater Crowfoot in Saint John, NB.

over the Westridge Dock. The procedure of drawing lots to allocate ship loadings would be removed and replaced with a premium – the amount shippers would be willing to pay to acquire Westridge dock capacity. Terasen would then allocate capacity based on a ranking of premiums from highest to lowest, with the shipper submitting the highest premium selected first.

On 15 March 2006, the Board approved the tariffs with the exception of the proposed changes to the Westridge Dock capacity allocation procedure. Due to the number and complexity of the objections from shippers and interested parties to these changes, the Board established a process that allowed for both written submissions and oral argument for considering the proposed changes to the procedures and premium.

In April 2006, the Board decided that the Westridge Dock capacity allocation procedures in Trans Mountain's tariffs, including the premium, do not contravene sections 62 and 67 of the NEB Act and approved the inclusion of the premium in the tariff.

TransCanada PipeLines Limited **Short Notice Services** **RH-1-2006**

In May 2006, TransCanada applied for an order to implement two new services designed to meet the needs of natural gas-fired electrical power generators; namely a Firm Transportation – Short Notice (FT-SN) service and Short Notice Balancing service. TransCanada's application included proposed toll methodologies for both services.

In December 2006, the NEB approved TransCanada's proposed FT-SN service, including the requirement that FT-SN be nominated and delivered to a separate delivery area with a separate meter. Further, the Board approved the proposal that the separate FT-SN delivery areas are to be used only for the delivery of natural gas under FT-SN contracts and that flow control valves be installed at FT-SN meter stations. The Board approved the proposed FT-SN toll method of a 10 per cent premium over the Firm Transportation toll and directed TransCanada to conduct a yearly recalculation of the premium.

The Board approved the proposed Short Notice Balancing service but rejected the proposed tolling methodology. The Board directed TransCanada to develop an alternative tolling methodology which addresses the concerns noted in the decision.

TransCanada PipeLines Limited **Gros Cacouna Receipt Point** **RH-1-2007**

On 5 December 2006, TransCanada applied to the Board pursuant to Part IV of the *National Energy Board Act* for an order affirming the tolling methodology that will apply to an anticipated new receipt point at Gros Cacouna, Quebec. This proposed new receipt point would allow the receipt of regasified liquefied natural gas from Gros Cacouna.

As outlined in its application, TransCanada expects future applications to be filed with the NEB for approval of the pipeline facilities required to connect the Gros Cacouna receipt point to its integrated pipeline system. An oral hearing for the current application will begin in the second quarter of 2007.

FINANCIAL AUDITS

The Board periodically conducts financial regulatory audits of the pipeline companies it regulates. These audits provide information about compliance with the Board's regulations, orders and decisions, as well as up-to-date knowledge of the company and the extent to which it operates with due regard to prudence and efficiency. In 2006, the Board completed two of these audits. The TransCanada audit focused on the Mainline system and there were no findings of non-compliance. There was one finding of non-compliance in the Trans-Northern audit and it related to the Board's section 58 Streamlining Orders. Following discussion, the company advised the Board of its commitment to comply.

APPLICATIONS FOR POWER LINE FACILITIES

Sea Breeze Victoria Converter Corporation

On 1 December 2005, Sea Breeze Victoria Converter Corporation (Sea Breeze) applied to the Board for a Certificate of Public Convenience and Necessity to construct and operate an international power line and elected to have the provisions of the NEB Act apply to the proposed power line, rather than the provincial laws of British Columbia.

The proposed international power line would be an approximately 48-kilometre, 150 kilovolt high-voltage direct current merchant power line system, rated at 574 megawatts. This project, known as the Juan de Fuca Cable Project, would connect the Port Angeles substation in Port Angeles, Washington to an existing BC Hydro and Power Authority substation in Victoria, B.C.

The Board held a public hearing, the oral portion of which ran from 26 to 28 June 2006 in Esquimalt, B.C., to consider Sea Breeze's application. The Board approved the application, with conditions, and released its Reasons for Decision and Certificate EC-III-26 on 7 September 2006. This is the first merchant international power line applied for and approved by the Board.

Montana Alberta Tie Ltd.

On 21 December 2005, Montana Alberta Tie Ltd. (MATL) filed an application under section 58.11 of the NEB Act seeking a permit to construct and operate a 230-kilovolt alternating current international power line from Lethbridge, Alberta to Great Falls, Montana. The proposed power line would be approximately 338 kilometres long, about 130 kilometres of which would be in Canada. The northern endpoint of the Canadian portion of the power line would be connected to an existing 240-kilovolt line owned by AltaLink through a substation just north of Lethbridge. The power line would cross the international border southwest of the community of Milk River.

In October 2006, MATL filed an update proposing changes to its original application, including modifications to its preferred corridor. The Board continues to process this application.



WHAT IS A SIGNIFICANT DISCOVERY DECLARATION?

Significant Discovery Declarations give the interest holder(s) exclusive rights to drill, test for and develop land in order to produce petroleum. A company applies for a *Significant Discovery Declaration* following exploratory drilling when it encounters hydrocarbons that meet certain regulatory requirements such as potential for sustained production. The applicant provides confidential information to the NEB that supports their claim for the aerial extent of their discovery. The Board then examines all evidence, gives notice that it intends to declare a significant discovery and subject to a hearing request, makes a declaration for that discovery and posts it publicly.

The Department of Indian and Northern Affairs Canada issues a *Significant Discovery Licence* for non-Accord Frontier land north of 60° N latitude. Natural Resources Canada would do so for non-Accord Frontier land south of 60° N.

A *Commercial Discovery* application and Development Plan can be filed with the Board and upon approval, Indian and Northern Affairs Canada issues a production license.

The Board issued decisions on two Significant Discovery Declarations in 2006: EnCana Umiak N-05 (April) and Chevron Langley K-30 (December) are both located in the Mackenzie Delta area.

ACTIVITY IN FRONTIER REGIONS

The NEB continues to pursue opportunities for coordination of activities in frontier regions with other northern and offshore regulatory and environmental review processes.

The Board also provides regulatory support to the Yukon Government in its administration of oil and gas activities under a service agreement.

The NEB assessed 38 project applications related to geological, geophysical and drilling activities in frontier regions under the *Canada Oil and Gas Operations Act* in 2006. The majority of applications (80 per cent) were filed by companies operating in the Central Mackenzie region; the remainder related to exploratory work in the Mackenzie Delta and Beaufort Sea. Nearly one third of the 38 applications called for routine geophysical and geological operations such as seismic work and airborne surveys.

Offshore in the Beaufort Sea region, the Pakota C60 well reached total depth in March 2006. This well was the first offshore drilling activity in the Beaufort Sea in 13 years when it was spudded in December 2005.

NEB frontier team members also continued to work collaboratively with industry to address challenges presented by a shorter drilling season in northern regions. Problems with scheduling occurred as crews delayed moving rigs and other heavy equipment to well sites until the ground was frozen deeply enough to bear the weight. The short drilling season also affects emergency planning processes which call for the capacity to drill a relief well on site, if necessary, during the same season. New drilling technology, now in the testing phase, is one option being considered to address this issue.

The NEB communicated with First Nations and northern agencies responsible for land and water use to explore alternative well site waste disposal methods. Normally, lined pits called sumps hold fluids and soft sediments arising from drilling operations; however, the NEB and industry are looking at other options that do not affect the surface of the land.

Natural gas production continued from the Ikhil and Fort Liard fields. Oil production flowed from the Norman Wells field and the Cameron hills region sustained combined oil and gas production throughout the year.

In 2006 the frontier team also:

- engaged with the Geological Survey of Canada and the Northwest Territories Geoscience Office to develop common databases;
- introduced a new, streamlined reporting system for production accounting; and,
- worked on technology upgrades for frontier operations that will reflect advances made in surveying techniques over the past 25 years. The industry is shifting from a 1927 North American Datum System to a 1983 NAD System with a goal of adopting this international standard by 2008.

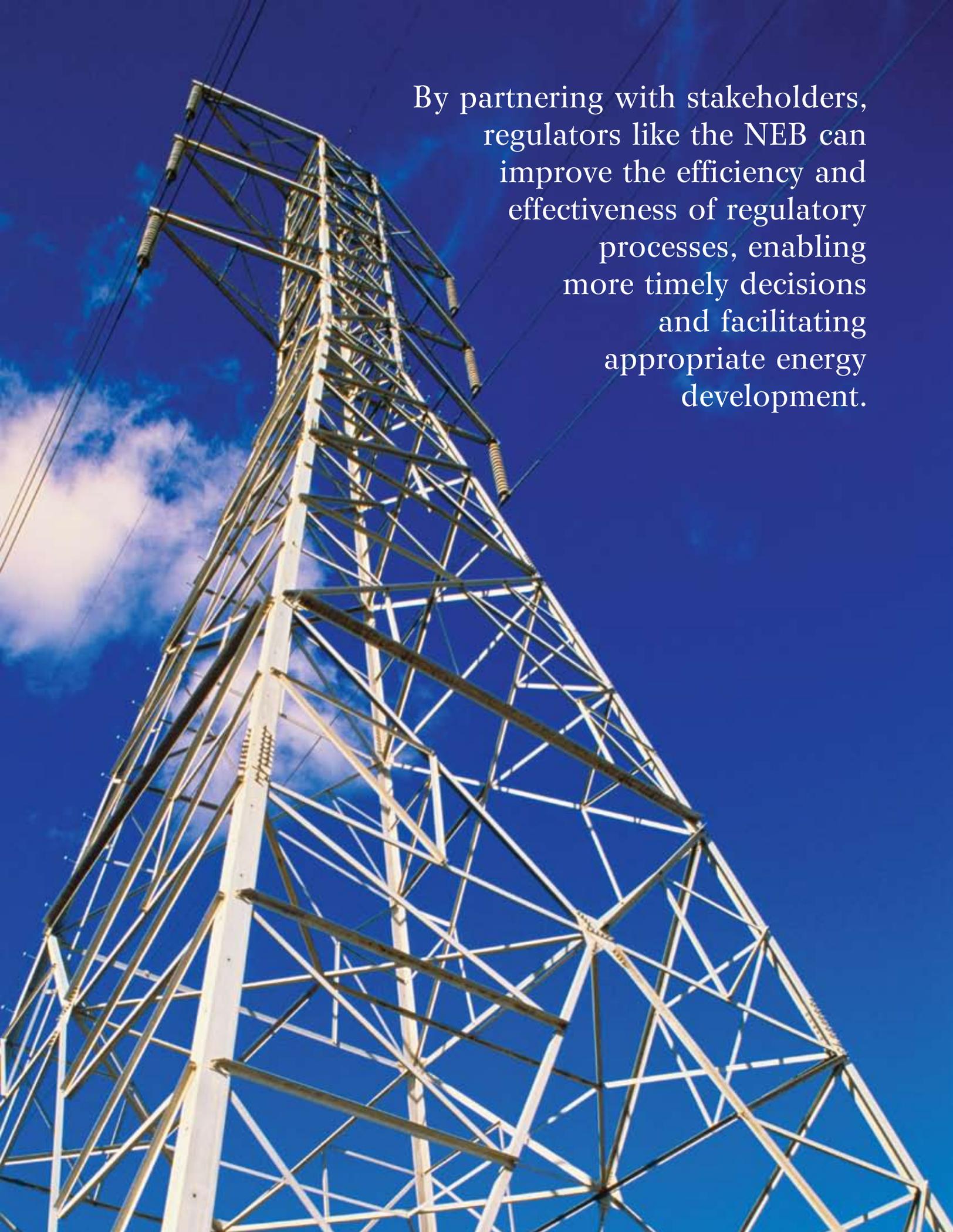
During 2006, an increasing number of visitors came to the NEB's Calgary-based frontier information office to access data released from past exploration activity. This interest could translate into a comparable increase in the level of frontier exploration activity over the next few years as companies analyze and act on the information.

PREPARING FOR THE FUTURE

Activity level in Canada's northern frontier in 2007 and beyond is contingent on a number of factors, chief among them being the status of the Mackenzie Gas Project. The Board has observed the entry of new players in the Northwest Territories and subsequent geological and geophysical activity, including seismic operations.

An increase in drilling activity in the Northwest Territories is likely, should the regulatory process for the Mackenzie Gas Project be seen to be moving forward. The return of activity is not expected to be sharp; rather a steady increase in the number of authorization requests for both seismic and drilling programs. In the three-to-five-year horizon, activity level may double that of 2006.

Negotiations between the federal government and the Northwest Territories on the devolution of natural resource management have resumed. The effect of devolution would reduce the geographic extent of the NEB's responsibilities for crude oil and natural gas exploration and production activities to the Nunavut and the offshore areas. It is possible that the NEB may provide support to the Government of the Northwest Territories for such activities under a service agreement similar to the one that exists between the NEB and the Government of Yukon.



By partnering with stakeholders, regulators like the NEB can improve the efficiency and effectiveness of regulatory processes, enabling more timely decisions and facilitating appropriate energy development.

ENERGY IN CANADA

Canada's energy sector is responding to tight energy markets by developing new large infrastructure projects, including oil pipelines, natural gas pipelines, liquefied natural gas receiving terminals, power generation and transmission facilities. These projects could bring additional energy supplies to Canadians and help ensure future energy security.

The NEB is responsible for reviewing many of the applications for these infrastructure projects and ensuring that, if they are found to be in the public interest, they proceed in ways that provide benefits to Canadians while minimizing any adverse impacts. In this regard, there are a number of challenges with the current regulatory system that require solutions to ensure fair and effective regulatory processes. These challenges include providing a clear regulatory framework, facilitating effective participation in regulatory processes, and maintaining the capacity to deliver in these areas.

Although the NEB is responsible for regulating only certain aspects of the Canadian energy industry, issues such as renewable energy, emissions and the effects of booming oil sands development can affect the work of the NEB. For more information on energy in Canada, please see the Energy Overview Report, to be released in May 2007. In addition, the *Energy Futures Report*, scheduled for release in fall 2007, includes a comprehensive energy supply and demand outlook for the years 2005 to 2030. In preparing this report, NEB staff consulted more than 100 groups and individuals representing industry, government, non-governmental organizations and academia.

The NEB extensively monitors energy markets and provides Canadians with an objective analysis of trends and issues. Informing Canadians on energy markets is a key strategy to fulfilling our mandate as set by Parliament.

CRUDE OIL

Highlights

- In July 2006, the price of West Texas Intermediate crude oil soared to a record \$78.40 per barrel.
- Canada's oil sands production increased by about 17 per cent.
- With the first full year of production from White Rose, Canada's East Coast offshore crude oil productive capacity increased by 30 per cent.

In mid-July 2006, the price of benchmark West Texas Intermediate (WTI) crude oil peaked at a record US\$78.40 per barrel, a 30 per cent increase from about US\$59 per barrel at the start of the year. Geopolitical uncertainty in Iran, Iraq, Nigeria and Venezuela, tight worldwide refining capacity, limited spare production capacity and a growth in demand contributed to this spike. By year-end, prices subsided to just over US\$60 per barrel because of a weaker economic environment and warm weather in North America and Europe. The 2006 average price of US\$66.24 per barrel represents a 17 per cent increase over the 2005 average price.

Canada is the world's seventh largest producer and a net exporter of crude oil. In 2006, Canada produced an average of 420 149 cubic metres (2.6 million barrels) per day of crude oil. Every day, about 270 147 cubic metres (1.7 million barrels) of crude oil, worth nearly \$39 billion, were exported - almost all to the United States.

High crude oil prices and strong demand have stimulated further development including a 17 per cent increase in production from Canada's oil sands. This supply increase more than offset the steadily declining production of conventional crude oil pumped from the Western Canada Sedimentary Basin. Production from conventional sources continued to decline, albeit at a slower rate, as high crude oil prices and lower natural gas prices encouraged many companies to shift their focus from natural gas to crude oil-directed drilling.

One of the challenges caused by increased production from Western Canada is a lack of adequate crude oil pipeline capacity. By year end, many pipelines were at capacity or under apportionment— a situation in which each of the shippers requesting space on a pipeline is apportioned a share of the available capacity.

On the East Coast, production averaged 51 507 cubic metres (324 494 barrels) per day, one per cent over 2005 levels. The three crude oil offshore fields - Hibernia, Terra Nova and White Rose - have the capacity to produce approximately 68 000 cubic metres (428 400 barrels) per day. However operational difficulties at Hibernia and Terra Nova reduced production at these facilities in 2006.

NATURAL GAS

Highlights

- Natural gas markets have been influenced by tight supplies in Western Canada, and rising domestic demand for natural gas-fired power generation in Ontario and Alberta.
- Canadian natural gas production is expected to decline slightly in 2007 due to a slow-down in drilling activity in the second half of 2006.
- Applications before the Board included the Mackenzie Gas Project; the Emera Brunswick Pipeline Project, and an application by TransCanada PipeLines for leave to transfer certain pipeline facilities to Keystone for use in the Keystone Pipeline Project.

In recent years, growth in natural gas supply from the Western Canada Sedimentary Basin and other large supply basins in North America has not kept pace with demand, resulting in higher and more volatile natural gas prices.

Following the \$15 per MMBtu peak reached in late 2005 in the aftermath of supply disruptions caused by Hurricane Katrina, prices dropped to around \$4 per MMBtu by fall 2006 and are expected to range between \$5 and \$7 per MMBtu for the 2006-2007 heating season.

Demand for natural gas is expected to grow due to increasing use of this cleaner-burning fuel in oil sands operations, power generation projects and industrial requirements stimulated by the expanding Canadian economy.

Changing natural gas market dynamics are being driven by rising natural gas use by Alberta's oil sands projects and increasing demand for natural gas-fired power generation, especially in Ontario. Changing market conditions also affect the way in which some of Canada's natural gas pipelines are operated.

The Board made several decisions related to natural gas service in 2006, including:

- the provision of short notice services for gas-fired power generators, who require flexible operations and firm transportation for natural gas to serve fluctuating, weather-sensitive electricity demands (TransCanada PipeLines Short Notice Services); and,
- the removal of pipeline capacity from natural gas service for potential conversion to crude oil service (Keystone Oil Pipeline Project).

Canadian natural gas production is expected to decline slightly in 2007 due to a slow-down in drilling activity in the second half of 2006. This slow-down was most likely caused by a number of factors including rising costs, decreasing productivity of new wells and the lower price of natural gas. The Board anticipates that growth in the production of coalbed methane (CBM) will not fully offset the expected decline in conventional natural gas production. Natural gas from coal is currently produced in commercial quantities from the Horseshoe Canyon coals in south-central Alberta and the Mannville Formation coals northwest of Edmonton.

Over the longer term, industry is pursuing the development of natural gas resources in Canada's frontier lands. The Board is currently considering an application to build a major pipeline from the Mackenzie Delta down the Mackenzie Valley to Alberta and onwards to supply both domestic and export markets. Industry is also considering proposals to maintain production from offshore Nova Scotia through the enhanced development of producing fields and the potential development of the Deep Panuke gas field. Over the longer term, the arrival of Liquefied Natural Gas (LNG) imports is a possible source of gas supply.

Canada exports more than half of its natural gas production to the United States. Natural gas export volumes in 2006 are expected to be less than in 2005 when significant hurricane damage to production facilities in the Gulf of Mexico inflated U.S. demand for Canadian natural gas. Due to reduced export volumes and lower natural gas prices, 2006 natural gas exports generated about \$27.5 billion of export revenue, a drop from the record-setting \$35.6 billion generated by natural gas exports to the United States in 2005.

NATURAL GAS LIQUIDS (NGL)

Highlights

- Exports of propane and butanes declined slightly in 2006.

Ethane supply was tight throughout the year with no volumes available for export.

Natural gas liquids include ethane, propane, butanes and pentanes plus (also referred to as C₅₊ or condensate). Natural gas liquids are derived for the most part from natural gas production. Propane and butane are also produced from crude oil refining. In 2006, about 15 per cent of propane and 40 per cent of butane supply came from refinery processes.

With ethane production at about 40 300 cubic metres (253 890 barrels) per day, supply was tight in 2006 and no volumes were available for export. On the demand side, the Canadian petrochemical industry consumed an estimated 38 900 cubic metres (245 070 barrels) per day of ethane and enhanced oil recovery projects in Alberta consumed about 1 400 cubic metres (8 820 barrels) per day for miscible flood requirements.

Propane and butane production is estimated at 31 900 cubic metres (200 970 barrels) per day and 24 200 cubic metres (152 460 barrels) per day, respectively, in 2006. Excess volumes of propane and butane were available for export throughout the year; however, exports for 2006 declined slightly when compared to 2005 volumes. This decline is due to two main factors: the growing use of heavier natural gas liquids for bitumen diluent in Alberta (diluent is a diluting agent that helps bitumen flow more easily through a pipeline) and reduced demand for heating fuel in the United States. Given the frenetic pace of oil sands development, the use of heavy natural gas liquids for diluent increased in 2006 and this trend is expected to continue. With respect to condensate diluent requirements specifically, the NEB expects to see future applications for diluent import pipeline infrastructure.

ELECTRICITY

Highlights:

- Electricity supplies across Canada were adequate to meet domestic demand in 2006.
- Canada's total net electricity exports decreased from 23.6 terawatt hours in 2005 to 17.4 terawatt hours in 2006.
- On 15 September 2006, the NEB signed a Memorandum of Understanding recognizing the North American Electric Reliability Corporation (NERC) as the Electric Reliability Organization.

The electricity generation industry continues to consider a diversity of options for new generation, including natural gas, hydropower, nuclear energy and alternative technologies such as renewables and clean coal.

Although Canada's electricity supply met domestic demand requirements in 2006, ensuring adequacy of generation capacity remains a top priority. In an effort to address future generation adequacy, some provinces have developed strategies that involve stakeholders. For example, Ontario's Integrated Power System Plan, a comprehensive public engagement process coordinated by the Ontario Power Authority, includes both supply-side measures such as increasing generation capacity and demand-side responses such as conservation and improved energy efficiency.

While interest continues to grow in renewable resource development, the electricity industry recognizes that emerging technologies such as wind, small hydropower projects and biomass can only be part of a diversified solution designed to increase electricity supply. Although these technologies may be attractive from an environmental standpoint, they often face the same challenges as conventional technologies in obtaining siting approvals and grid access.

A number of proposals for large hydropower developments continued to be assessed in 2006. Some of the projects, such as the development of Lower Churchill Falls in Labrador and Conawapa in northern Manitoba, could lead to expanded regional trade and potentially significant additions to long-distance transmission capacity.

Canada's generation supply additions consisted mainly of natural gas-fired projects and a 767-megawatt increase in wind generation capacity to 1 451 megawatts by

the end of 2006. Given the rising cost of new electric generation, one likely outcome in the years to come is higher consumer prices. Since the development of new generation targeted regional demand, the NEB saw little change in the number of regulatory applications for export. One export application currently before the Board from Yuddin Energy Inc. proposes to export electricity generated by a wind farm in northwestern Quebec.

On 7 September 2006, the NEB approved an application for Sea Breeze Converter Corporation to construct and operate an international power line between British Columbia and Washington State. An application by Montana Alberta Tie Ltd. to construct and operate an international power line from Lethbridge, Alberta to Great Falls, Montana is currently before the Board.

The NEB authorizes electricity exports and the construction and operation of international power lines. International power lines enable commercial trading opportunities and provide increased reliability.

Recent advances have been made with respect to the reliability of the North American power grid. On 15 September 2006, the NEB signed a Memorandum of Understanding recognizing the North American Reliability Corporation (NERC) as the Electric Reliability Organization. Starting in 2007, NERC will be responsible for implementing mandatory electric reliability standards across the North American grid. By partnering with NERC, the NEB is able to promote mandatory reliability standards for international power lines under the NEB's jurisdiction.

Breaking from a two-year increase in net electricity exports, Canada's total net exports decreased from 23.6 terawatt hours in 2005 to 17.4 terawatt hours in 2006. However, 2006 net exports were 0.7 terawatt hours above the five-year average. Net revenues also declined from \$1.9 billion in 2005 to \$1.3 billion in 2006 and were below the five-year average by \$0.1 billion. The import price declined from \$66 per megawatt hour in 2005 to \$49 per megawatt hour in 2006, while the export price declined from \$73 per megawatt hour in 2005 to \$61 per megawatt hour in 2006. These declines reflect the mild weather and lower natural gas prices across Canada throughout 2006. However, the 2006 net revenue is on par with the five-year average which suggests that economic gains are still being achieved despite the increase in local demand and the fluctuations in supply, particularly hydropower generation, that have occurred over the past five years.



In 2006, Canadian natural gas exports were estimated to be worth \$26 billion.



**PARTNERS IN
RESPONSIBLE DEVELOPMENT**

EFFICIENT ENERGY INFRASTRUCTURE AND MARKETS

The NEB influences efficient energy infrastructure and markets through its regulatory decisions related to pipeline facilities, pipeline tolls and tariffs, and energy imports and exports. In pursuing the goal of economic efficiency, the Board strives to provide effective regulatory processes and foster adequate energy infrastructure and informed energy markets.

EFFECTIVE REGULATORY PROCESSES

Effective regulatory processes help create the conditions required for investors and industry to proceed with needed new energy projects or infrastructure. The NEB understands that unnecessarily slow, lengthy or complicated regulatory processes lead to delays in infrastructure development, increased costs and, in some cases, abandonment of a project. By streamlining the regulatory processes and working proactively with other stakeholders, the NEB has been successful in reducing or eliminating obstacles to development while ensuring it is conducted responsibly.

SERVICE STANDARDS

In today's results-based management environment, service standards have become an essential tool for building effective citizen-focused service in organizations. The NEB launched a program of service standards in 2005 for many of the NEB's regulatory functions and services to help manage the expectations of Board stakeholders. Table 1 identifies service standards for the various service-oriented tasks at the NEB.

NEW ELECTRICITY EXPORT APPLICATIONS SERVICE STANDARDS

The Board's standard for electricity export applications has been 80 per cent of all routine applications completed within 75 days of the receipt of a complete application. In 2006, the Board received 10 electricity export applications. Six were routine and were processed within the service standard. In four cases, the Board was not able to meet its service standards due to applicant delays in completing the appropriate paperwork and staff turnover. As a result, the Board is developing supporting tools and procedures to help improve its service standard success rate in 2007. In addition, the Board adopted new service standards for implementation in January 2007 for electricity export applications. The format and approach of the new standards are comparable to the section 58 applications.

The Board will now categorize each electricity export application into one of three categories based on the complexity of the issues associated with the application. Depending on the category assigned, each application will have a target date for release of the Board's decision.

Table 2 summarizes the new service standards for electricity export applications:

Category C applications are very complex and can be precedent setting. As such, the Board has not defined a service standard as the decision timelines are highly variable for these rare applications.

SERVICE STANDARDS FOR APPLICATIONS NOT REQUIRING A HEARING

The Board receives some applications which do not require a public hearing in order to make a decision. For example, an application to build a pipeline shorter than 40 kilometres in length is normally considered under Section 58 of the *National Energy Board Act*. Table 3 shows the service standards and results for Section 58 applications.

The NEB has been working to reduce cycle times for routine applications by applying a risk-based lifecycle approach that maximizes the use of existing NEB tools and resources. As a pilot project, the NEB used this risk-based lifecycle approach to process two of the six Category A applications assessed by the NEB in 2006. As a result of this new approach, the average cycle time for the two pilot applications was 17 per cent less than that for the other four applications.

ADEQUATE ENERGY INFRASTRUCTURE

Adequate energy infrastructure is essential to an effectively functioning energy market. Inadequate pipeline capacity reduces a shipper's ability to transport energy products to market and causes reduced revenues for producers, lower income tax revenues to governments, and potentially higher prices for consumers. For example, when shippers request transportation for more crude oil than a pipeline can transport, each shipper is required to cutback or 'apportion' its shipments. When pipeline capacity is constrained, oil may be shut-in or shippers may be forced to sell their products at lower prices in less attractive markets because of surplus supplies. For example, discounts on heavy oil and light crude oil tend to increase when there is inadequate pipeline capacity or a lack of available markets. In late 2006, synthetic crude oil was discounted by up to \$5 per barrel largely because of inadequate pipeline capacity. Last year, the National Energy Board considered two applications for pipeline expansions: TMX Anchor Loop Project and the Keystone Oil Pipeline Project. The Board expects to receive further applications for increased oil pipeline capacity in the future.

CRUDE PIPELINE CAPACITY TIGHT IN 2006

Increasing production from the oil sands, driven by high crude oil prices and strong U.S. demand has resulted in tight pipeline capacity out of the Western Canada Sedimentary Basin. On several occasions all the major export pipelines have been at capacity or under apportionment.

In 2006, Enbridge Pipeline Ltd. (Enbridge) operated at about 85 per cent of capacity, with the actual throughput averaging 245 000 cubic metres (1.5 million barrels) per day (Figure 4). Capacity was adequate in the first half 2006; however, in the third and fourth quarters of 2006, Enbridge experienced apportionment on many of its lines. Increased oil sands production and favourable light crude and synthetic pricing resulted in higher throughputs to export markets and to refineries in Ontario. The reversals of the Spearhead and Mobil pipelines that deliver western Canadian crude oil into the U.S. Midwest and the U.S. Gulf Coast also contributed to an increase in throughputs on the Enbridge system.

The Terasen pipeline system operated at approximately 83 per cent of capacity based on a combined light and heavy crude capacity of 35 750 cubic metres (225 000 barrels) per day. In 2006, the Terasen pipeline was unable to ship all volumes offered to the company on a number of occasions as an increase in transportation of heavier crude oil volumes reduced available capacity. On 17 February 2006, Kinder Morgan applied to the Board to loop and expand the pipeline

Table 1: National Energy Board Service Standards and Results in 2006

Task	Service Standard	No. of Applications or Requests in 2006	Results
Release of Hearing Decision	80% complete within 12 weeks following a public hearing	6	100%
Authorization for export of oil, natural gas, and natural gas liquids; and import for natural gas	2 working days (Short term orders only. Long term licences could be subject to a full hearing process.)	Oil & Petroleum Products -107 Natural Gas exports and imports -161 Natural Gas Liquids -114	100%
Electricity Export Applications	80% of routine applications completed within 75 days *New service standards will be applicable as of 1 January 2007.	10	33% ⁽¹⁾
COGO Act Applications to drill a well	Decision rendered within 21 calendar days of the receipt of a complete application	15	100%
COGO Act Geological and Geophysical Applications	Decision rendered within 30 calendar days of the receipt of a complete application	23	100%
CPR Act Applications	80% of decisions rendered within 90 calendar days from the day that all information is available to begin the evaluation	2	100%
Financial Audits	80% of draft audit reports will be sent to the company within 8 weeks of field work completion	2	100%
Landowner Complaints	80% resolved within 60 calendar days of receipt of the initial complaint (subject to the complexity of the complaint)	20	94%
Responding to NEB library requests	Respond to requests within one working day of receipt	1531	100%

(3) The service standard for four electricity export applications was not met due to applicant delays and staff turnover.

Table 2: Service Standards for Electricity Export Applications Effective 2007

Category	Complexity of Issues	Electricity Export Decision Release
A	Minor	80% of decisions released within 40 calendar days following the completion of the Notice of Application period
B	Moderate	80% of decisions released within 90 calendar days following the completion of the Notice of Application period
C	Major	No service standard

Table 3: Service Standards Results for Section 58 Applications

Category	Category Description	Service Standard	No. of Applications in 2006	Results Achieved	Average Cycle Times
A – Section 58	Minor complexity of issues with no third party interest	80% completed within 40 calendar days of the receipt of a complete application.	6	83%	34 days
B – Section 58	Moderate complexity of issues with possible third party interest	80% completed within 90 calendar days of the receipt of a complete application.	18	89%	71 days
C – Section 58	Major complexity of issues with likely third party interest	80% completed within 120 calendar days of the receipt of a complete application.	2	100%	108 days

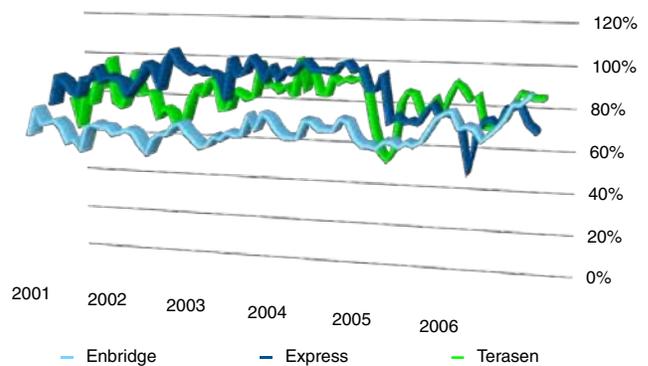
by 6 360 cubic metres (40 000 barrels) per day. The Board approved the TMX-Anchor Loop Project application on 26 October 2006 after an oral public hearing. The additional capacity will come into service in 2008.

The Express Pipeline Ltd. operated on average at 80 per cent of capacity with the throughput averaging 35 000 cubic metres (221 000 barrels) per day. Increased crude oil production in the Rocky Mountain Region of the United States (Petroleum Administration Defense District IV) has resulted in apportionment on the Express/Platte system.

In addition to Kinder Morgan’s application to the Board, in the second quarter of 2006, TransCanada PipeLines Ltd. and TransCanada Keystone Pipeline GP Ltd. filed an application with the Board for leave to transfer certain natural gas pipeline facilities forming part of the TransCanada Mainline to Keystone, for use in crude oil service. An oral public hearing convened on 23 October 2006, concluded on 14 November. On 12 December 2006, TransCanada Keystone Pipeline GP Ltd. (Keystone) filed an application to construct and operate the Canadian portion of the Keystone Pipeline Project.

The Cochin Pipelines Ltd. System (Cochin) is the largest and longest Natural Gas Liquids pipeline in Canada. In 2006, the Cochin system operated at around 70 per cent capacity, with actual throughput averaging 7 800 cubic metres (49 140 barrels) per day. In March 2006, Cochin suspended ethylene shipments due to a defect found in the U.S. portion of the pipeline, and voluntarily reduced the pipeline’s pressure. Cochin has informed shippers that the pipeline will run at reduced pressure until at least fall 2007.

FIGURE 4 - OIL PIPELINE CAPACITY UTILIZATION



WHAT IS HEAVY CRUDE?

Heavy crude, such as that extracted from Alberta’s oil sands, is generally defined as oil that has a specific gravity higher than 900 kilograms per cubic metre. Since heavy crude has a higher viscosity than light crude, it reduces the capacity of the pipeline. Transporting heavy crude oil may also require increased pumping power, heating, or blending with diluent (lighter liquid hydrocarbons) to help it move through the pipeline. Additionally, heavy crude commonly contains impurities such as sulphur or water which may necessitate increased monitoring and maintenance activities on pipelines carrying heavy crude.

Without thylene in the pipeline, propane and ethane shippers are not expected to face apportionment.

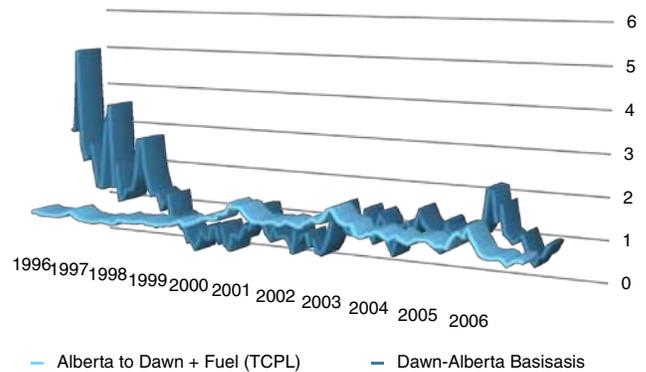
The NEB is concerned about the adequacy of oil pipeline capacity to carry oil and oil products from western Canada to export and domestic markets. The industry is considering a variety of options to increase pipeline capacity which could result in applications to the Board. The Board believes that it is most appropriate for industry to decide which pipeline expansion projects it wants to support. The Board's role is to provide efficient and effective regulatory processes that do not unduly delay these projects, while at the same time ensuring that projects are built responsibly.

NATURAL GAS PIPELINE CAPACITY GENERALLY ADEQUATE

In contrast to crude oil production, natural gas production has been fairly constant since 2001. At the same time, consumption of natural gas in Alberta is increasing, meaning there is less natural gas available to ship out of the province. Consequently, the capacity on natural gas pipelines has generally been adequate to transport natural gas from the Western Canada Sedimentary Basin to markets in Canada and the United States. Pipelines that move natural gas from British Columbia to the U.S. Pacific Northwest and California still have adequate capacity as demand from those regions has been relatively flat in recent years. Pipelines bringing gas from fields located in offshore Nova Scotia also have adequate capacity.

Figure 5 shows the basis, or the difference, in natural gas prices between the Alberta border and the Dawn delivery point in south western Ontario. It also compares the price difference with the firm service toll (including fuel costs) between these two points on the TransCanada PipeLines system, the largest natural gas transmission system in Canada. The fact that the price difference is typically lower than the firm service transportation toll indicates that there is adequate pipeline capacity in place. The Board tracks similar data for other Canadian natural gas pipeline corridors and is satisfied that there is generally sufficient natural gas pipeline capacity. In late 2005 and early 2006, as a result of hurricane damage, there was a short-term push to move more natural gas eastwards to replace lost production from the Gulf Coast. During the rest of 2006, as storage filled, there was less demand to move natural gas to eastern markets, and the basis returned to its expected level.

FIGURE 5: COMMODITY PRICE DIFFERENTIALS
(Dollars per gigajoule)



ELECTRICITY GRID CAPACITY

Although total inter-provincial and international power lines regulated by the Board account for less than one per cent of all transmission infrastructure in Canada, these facilities are important conduits for electricity trade between Canada and the United States. They enable commercial opportunities and improve the electric reliability of bulk power systems on both sides of the border.

PIPELINE SERVICES SURVEY HIGHLIGHTS

Pipeline companies offer a variety of services to their shippers; services such as firm service, interruptible service or short-notice service among others on natural gas pipelines or the ability to transport different types of product on oil pipelines. For the most part, the tolls and tariffs paid for these services are determined through negotiated settlements between the pipeline company and its shippers.

Each year, the Board surveys the customers of the pipeline companies it regulates to gather feedback on such issues as a pipeline's physical reliability and the suite of services offered by the pipeline company. This direct feedback is just one of the ways the National Energy Board gathers evidence to determine whether the Canadian energy and transportation markets are working well, one of the Board's primary goals.

Shippers who responded to the NEB's 2006 pipeline services survey gave the physical reliability of pipeline operations top marks with an average score of 4.06 out of five while satisfaction with the competitiveness of the pipeline company's transportation tolls ranked the lowest with an average rating of 3.02 out of five. Overall, shippers remain reasonably satisfied with the services provided by the pipelines and the NEB. However, pipeline companies also rated lower in the areas of innovation and improvement and their collaboration processes.

A summary of the 2006 aggregate results was posted in May on the Board's website at www.neb-one.gc.ca. The account includes the industry average and distribution of responses for each question as well as a summary of major themes. The Board provided each pipeline company and its shippers with detailed company-specific results, including comments received from shippers.

EFFICIENT AND INFORMED ENERGY MARKETS

The NEB continually monitors Canadian energy markets to ensure that Canadians have access to Canadian-produced oil, natural gas and electricity on terms and conditions that are not less favourable than those available to export customers. The Board also provides data and analysis on a wide range of topics, including energy export volumes and prices, developments in natural gas, crude oil and electricity markets; assessments of the supply, demand and future deliverability of natural gas and oil; and periodic long-term outlooks for Canada's energy future.

Providing and interpreting energy market information contributes to the efficient operation of energy markets. Investors, industry planners and consumers can make more informed decisions when they have accurate information provided by an impartial agency such as the NEB. Following is an overview of energy market trends and developments observed in 2006. More detailed assessments can be found in the publications listed at the end of this section and on the Board's website and a plain language discussion of Canadian energy markets is posted in the Energy Pricing section of www.neb-one.gc.ca.

CRUDE OIL MARKET

In 2006, the crude oil market functioned effectively, meaning Canadians had access to Canadian crude oil at a similar price to that paid by export customers (Figure 7).

Canadian crude oil prices remained high during the first half of 2006 – beginning the year at C\$72.20 per barrel and steadily climbing throughout the summer. On 14 July light oil prices posted at Edmonton reached record highs at more than C\$90.00 per barrel. This was largely a result of continuing strong demand in the United States coupled with geopolitical tensions and supply disruptions in Nigeria. Oil prices began their steep retreat in August and declined further through the fall, to close the year at around C\$68.51 per barrel, a drop of 24 per cent.

The restart of production at oil sands upgrading facilities, expansion of other facilities in the third quarter of 2006, and an ample supply of offshore light crude oil destined for the United States, resulted in a discount for Canadian conventional and synthetic sweet crude oil. In addition, high inventory levels, a lack of hurricane activity and easing geopolitical tensions contributed to this price drop.

NATURAL GAS MARKET

In 2006 domestic prices at AECO-C, the main pricing point for natural gas in Alberta, were usually equal to or lower than natural gas prices at export points in Eastern Canada. This indicates that Canadians are paying no more than export customers for natural gas purchased in Alberta and suggests economic efficiency in the natural gas market.

ENSURING EFFICIENT ENVIRONMENTAL ASSESSMENTS

When NEB staff became aware of the proposed TMX - Anchor Loop pipeline through Jasper National Park and Mount Robson Provincial Park, they recognized the potential for controversy and the duplication of effort by federal and provincial departments in the environmental assessment process. At a very early stage in the application process, NEB staff began working closely with Parks Canada to establish a coordinated environmental assessment process in which federal and provincial departments

with environmental assessment responsibilities participated. As a result, an environmental screening report designed to meet the needs of federal and provincial parties in reaching their own determination under the *Canadian Environmental Assessment Act* or other applicable environmental assessment legislation, was produced which minimized potential duplication in the environmental assessment of the project.

The relatively small number of buyers and sellers in the British Columbia and Maritime gas markets presents a greater challenge for monitoring the equivalency of domestic and export natural gas pricing. The NEB continues to track prices and monitor these markets to ensure economic efficiency prevails and the data is available at www.neb-one.gc.ca.

Canadian natural gas prices declined fairly steadily for the first half of 2006—beginning the year at C\$8.89 per gigajoule and reaching a low of C\$3.44 per gigajoule in late September. Demand for natural gas was weak over the winter of 2005/06, with temperatures 10 per cent warmer than average. The warm winter allowed natural gas in North American storage facilities to build to record high levels. Prices remained relatively weak all year as natural gas continued to be put into storage. There was some strengthening of natural gas prices during July and August as a heat wave across most of the large population centres of North America resulted in increases in electric power demand for air conditioning. During such peak times, natural gas is called upon for electricity generation and this year, there was an unprecedented withdrawal of natural gas from storage during the summer. In spite of the summer draw, natural gas storage was full in all regions, before the winter heating season started.

ELECTRICITY MARKET

The ability to export electricity when the economics are favourable has provided provincial electric utilities and governments with a key source of revenue, particularly in the hydropower-generating provinces. Usage of international power lines suggests that there is adequate transmission available although there may occasionally be constraints during peak periods.

ENERGY MARKET ASSESSMENT REPORTS

During 2006, the Board prepared the following publications and statistical reports related to energy commodities, including crude oil, natural gas and electricity: These reports are available on the NEB's website at www.neb-one.gc.ca.

Northeast British Columbia's Ultimate Potential for Conventional Natural Gas – Prepared in cooperation with the British Columbia Ministry of Energy, Mines and Petroleum Resources, this report presented the results of a resource assessment for conventional natural gas in that region and also discussed the potential for both conventional and unconventional natural gas in the province as a whole.

FIGURE 6: NET EXPORT REVENUES BY COMMODITY (Billions of CDN dollars)

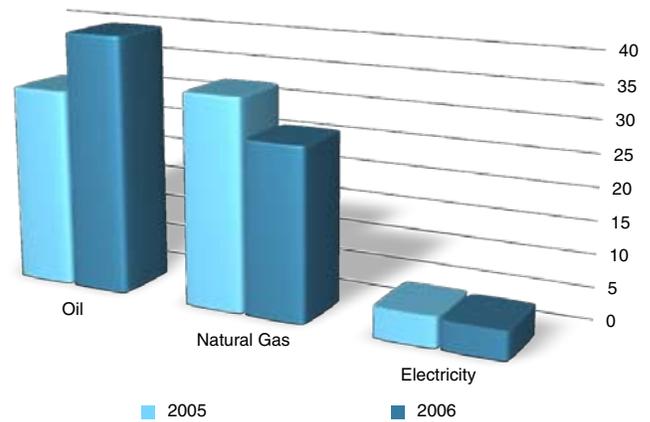


FIGURE 7: LIGHT CRUDE OIL POSTED AND EXPORT PRICE AT EDMONTON (CDN dollars per barrel)

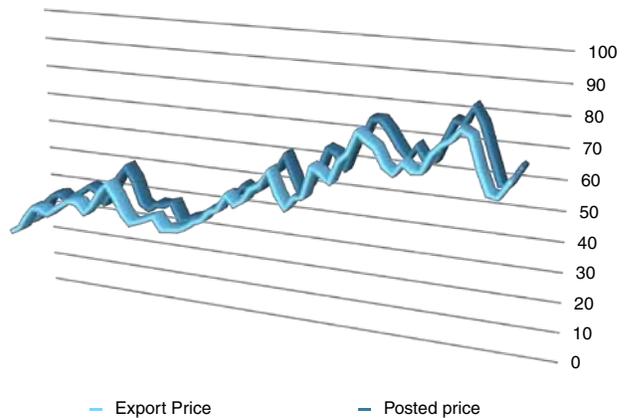
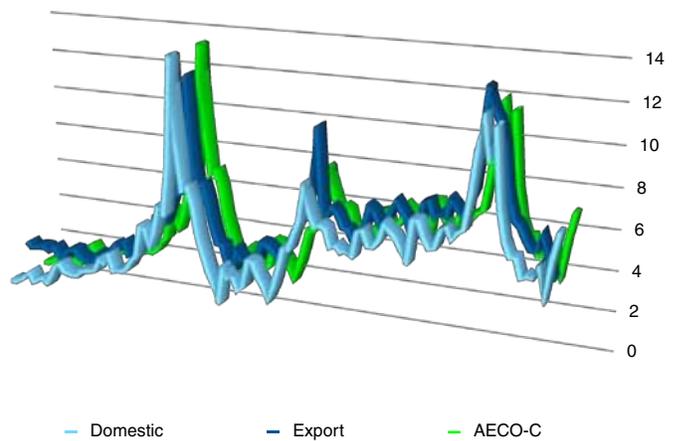


FIGURE 8: EASTERN EXPORT AND DOMESTIC GAS PRICE AT THE ALBERTA BORDER (CDN Dollars per barrel)



Natural Gas for Power Generation: Issues and Implications – This report analyzes the growing demand for natural gas-fired electricity generation in North America and the implications and issues associated with that growing demand.

Short-term Canadian Natural Gas Deliverability 2006-2008 – In this annual energy market assessment, the NEB reviews the volume of natural gas that can be delivered to markets from all Canadian sources in the next three years.

Emerging Technologies in Electricity Generation – This report provides information on the status and prospects of emerging technologies, including such renewable technologies as wind power, small hydropower and biomass, as well as clean coal technologies. It identifies the barriers to growth in ‘greener and cleaner electrical generation’ and gives suggestions on how those barriers can be overcome.

Canada’s Oil Sands - Opportunities and Challenges to 2015: An Update – The new report increases the NEB’s 2004 oil sands production estimate by almost 40 per cent to 3 million barrels per day by 2015.

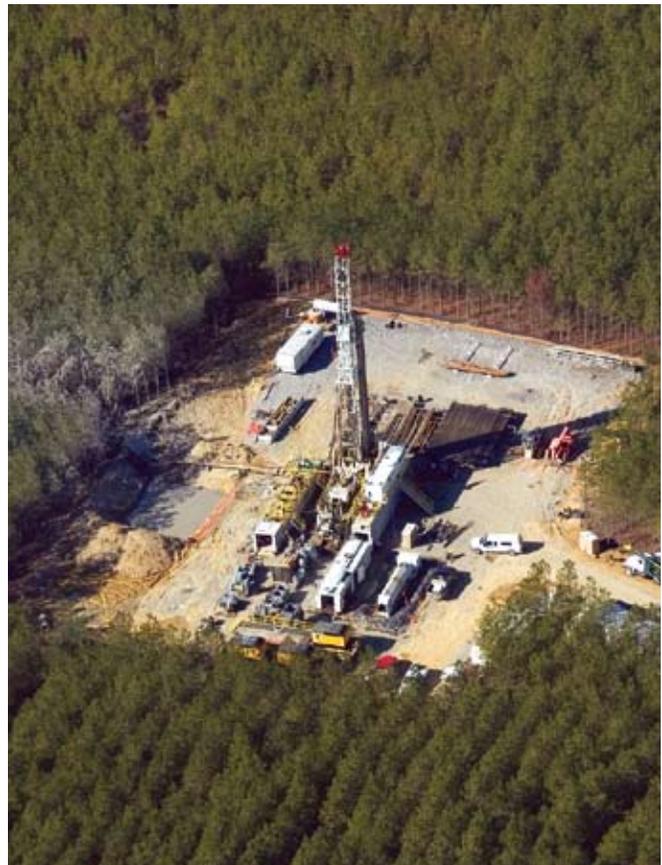
Canadian Hydrocarbon Transportation System: Transportation Assessment – This report examines the adequacy and economic efficiency of the more than 45 000 kilometres of pipelines regulated by the NEB.

In 2006, the Board began releasing semi-annual outlooks of Canadian energy markets. These outlooks assess the supply and demand balance going into the heating and cooling seasons and provide the Board’s expectations of how the markets will perform over the next few months.

In January 2006, the NEB launched a new consumer-focused section within its website to provide Canadians with information about energy pricing in an easy-to-understand format. The energy pricing section examines oil, natural gas, propane and electricity and attracted strong interest, recording more than 10 000 visits in 2006.

**INDEPENDENT, FAIR REGULATORY
MODEL SOUGHT WORLDWIDE**

The NEB has been chosen as a model for countries seeking to develop a transparent, impartial regulatory process. Staff have traveled to China, Japan and Brazil to discuss the Board’s regulatory process and the value of a neutral, independent agency that operates at arm’s length from the government. In November, the NEB hosted a delegation from South Africa as their new natural gas regulatory agency is largely modeled after the NEB.



“One of the National Energy Board key values is a commitment to accountability. We hold ourselves accountable to meeting service standards that provide our stakeholders with clear, transparent expectations and a greater degree of certainty.”

Gaétan Caron
Vice-Chairman, National Energy Board



“Thank you for providing me with a copy of your recent report *Short-term Canadian Natural Gas Deliverability*. The National Energy Board continues to provide an interactive and real time perspective for North American companies charged with developing an accurate view on the future outlook of this important piece of the natural gas supply puzzle.”

Tom Quine
President, Northstar Industries, Inc.



SAFETY, SECURITY AND THE ENVIRONMENT

The NEB is responsible for ensuring the regulated energy industry operates in a manner that protects the employee, contractor, public and environment. The Board's mandate includes oversight for the security of pipelines, associated pipeline facilities, and international power lines. Regulated companies have the primary responsibility for safety and environmental protection because they are the designers, builders and operators of the facilities. The Board ensures that companies identify and effectively manage the safety, security, environmental, socio-economic and land risks throughout the lifecycle of regulated facilities.

SAFETY PERFORMANCE

In March 2006, the NEB published *Focus on Safety and Environment – A Comparative Analysis of Pipeline Performance 2000-2004*. This is the fourth report comparing the safety and environmental performance of pipeline companies regulated by the Board with comparable industries nationally and internationally. This report is published every

The NEB regulates 104 pipeline companies with more than 45 000 kilometres of pipeline – that's enough to wrap around the planet.

spring and includes data from the calendar year ending approximately 15 months earlier.

The 2006 report uses eight key indicators to evaluate performance in the areas of safety, integrity management, and environmental management. The NEB obtained data for the report through the Onshore Pipeline Regulations mandatory reporting requirements and through voluntary reporting by regulated companies under the Safety Performance Indicators Initiative. Using statistics provided by companies operating approximately 94 per cent of the total length of NEB-regulated pipelines, the report presents the following findings, which include data up to the end of the 2004 calendar year:

- For the seventh consecutive year, no fatalities occurred on NEB-regulated pipelines.
- 2004 was the second consecutive year in which there were no reported ruptures. The sophisticated, proactive nature of company integrity management programs ended a rupture pattern averaging 2.5 ruptures annually from 1991 to 2003.
- The rate of injury to contract workers dropped by more than 50 per cent compared with 2003. However, these results are still nearly three times higher than the employee injury frequency.
- There have been no liquid or natural gas releases from NEB-regulated pipelines in the last two years. A release is caused by a rupture or hole in the body of a pipeline.

Subsequent to the publication of the report, new data for 2005 and 2006 was obtained as mandatory and voluntary company reporting continued. Following are key observations developed from this information:

- No hydrocarbon pipeline ruptures and no fatalities occurred at NEB-regulated hydrocarbon facilities.
- One commodity pipeline failure occurred in 2006. A sulphur commodity pipeline was allowed to solidify, due to an extended power outage. The pipeline then failed from overpressure while the company was in the process of preparing the pipeline for operation.
- In December 2006, a fatality occurred during the construction of an NEB-regulated international power line. Paul Crocker, a 47-year-old contractor from Nova Scotia, was killed when a section of crane he was dismantling fell on top of him. This was the first fatality at an NEB-regulated facility in more than nine years and the Board is reviewing the accident.

The full report and a related fact sheet can be downloaded from www.neb-one.gc.ca.

SAFETY AND SECURITY

The potential for human-caused and natural disasters to affect energy facilities in Canada is a major concern for Canadians and all levels of government. The ice storm of 1998 and Hurricanes Juan (2003) and Katrina (2005) demonstrated the potential for massive energy infrastructure damage due to weather events. The events of September 11, 2001 exposed the vulnerability

of North American infrastructure and transportation systems to attacks by terrorists. The National Energy Board regulates approximately 45 000 kilometres of this country's pipeline system and approximately 1 100 kilometres of its vast electricity infrastructure grid. However, along with Natural Resources Canada, who plays a leading role in ensuring the effective functioning of energy supply systems in Canada, the NEB has been responsible for the security of Canada's federally-regulated energy infrastructure since April 2005.

Security management assessments completed by the NEB and the Alberta Energy and Utilities Board resulted in a single common report, featuring a mutually agreed-upon assessment protocol and joint recommendations. This collaborative endeavour was the first of its kind in Canada and possibly North America.

During the past year, the NEB has moved forward on several different initiatives designed to strengthen the security of Canada's energy infrastructure. In May 2006, the Board released a Proposed Regulatory Change (PRC 2006-01) outlining proposed changes to the *Onshore Pipeline Regulations, 1999* (OPR 99) and the *National Energy Board Processing Plant Regulations* (PPR) to address pipeline security management. Through PRC 2006-01, the Board conveys its expectation that companies have a Pipeline Security Management Program which is systematic, comprehensive and proactive in managing security risks. The NEB also expects companies to integrate the program within their overall management systems to provide for safe and secure practice in the design, construction, operation and maintenance of a pipeline system. These expectations and guidance were considered to be in effect as of 31 July 2006, and will remain in effect until the revised regulations are legislated.

As part of an initiative to prepare the scope for a security management standard for the oil and gas industry, the Board led a task force under the auspices of the Canadian Standards Association (CSA) called the Strategic Steering Committee on Petroleum & Natural Gas Industry Systems. In November 2006, 35 people from across the oil and gas industry, the public service and interested stakeholders attended an ad hoc committee meeting in Calgary. The committee was successful in developing a proposal for a CSA consensus standard on security management for the oil and gas industry. The standard may also be adopted by reference to the Board's regulations and by applicable provincial regulations across Canada.

The Board's new security mandate also provides for the regulation of the security of international power lines and designated inter-provincial power lines under its jurisdiction. In this regard, the Board supported the move towards mandatory reliability standards with the recognition of the North American Reliability Council as an Electric Reliability Organization. In addition, the NEB and Natural Resource Canada's Energy Infrastructure Protection Division discussed using a collaborative approach to completing joint security vulnerability assessments on international power lines.

In an effort to address overlapping and adjoining jurisdictions, common regulatory objectives, and the need for effective communication about security management, the Board develops working agreements with federal and provincial government partners. In January 2006, the NEB signed a Memorandum of Understanding with the Alberta Energy and Utilities Board to facilitate coordination and cooperation between the two regulators. Under the Memorandum of Understanding, the two agencies jointly completed four of the six scheduled assessments in 2006 and planned the other two for early 2007. The security management assessments completed to date reflect a cooperative effort that culminated in a single common report featuring a mutually agreed-upon assessment protocol and joint recommendations.

This endeavour was the first of its kind in Canada and possibly North America. The NEB is engaged in talks to develop similar agreements with other provinces, including British Columbia's Oil and Gas Commission and New Brunswick's Public Safety, Security and Emergencies Directorate, to assist the respective

jurisdictions in managing security-related matters in a more effective and cooperative manner.

The Board will continue to promote security awareness in the energy field and leverage relationships with its provincial and federal partners, international counterparts and the industry to ensure that energy infrastructure protection is managed in a responsible manner and in the interest of all Canadians. In 2007, the NEB plans to request security-related incident information from NEB-regulated companies as part of their annual performance indicator reporting.

MONITORING COMPLIANCE

The NEB monitors activities undertaken by regulated companies from the initial design of facilities through to abandonment. This regulatory function assesses compliance with conditions attached to the original Order, Certificate or Authorization, and ensures the company is designing, constructing, operating and abandoning its facilities in accordance with the applicable regulations under the NEB Act and the *Canada Oil and Gas Operations Act*.

In 2006, the NEB began using a compliance resource prioritization model to plan compliance verification activities such as inspections, audits and meetings. The 2006 Compliance Verification Strategy was developed based on an analysis of company performance in the areas of program adequacy, implementation and effectiveness. Significant improvements have been made since implementation of this approach and the NEB is committed to its use in future years.



INSPECTIONS

The NEB inspects its regulated pipelines and facilities throughout all phases of development, operation and abandonment. Qualified and duly designated inspection, safety and conservation officers confirm compliance with legal requirements and other conditions of project approval. In addition to inspections carried out under the NEB Act and the COGO Act, several NEB inspectors have also been designated as Health and Safety Officers by Human Resources and Social Development Canada who enforce the requirements of Part II of the *Canada Labour Code* among NEB-regulated companies.

Inspections provide valuable data related to the implementation of a company's programs and serve to reinforce the working relationship between regulated companies and the NEB. As a respected and visible regulator, the NEB obtains compliance from companies through discussion and rarely needs to take enforcement action beyond the receipt of an Assurance of Voluntary Compliance.

Table 4: Facilities Inspections

In 2006, NEB inspection officers and personnel carried out:	
13	Safety and engineering inspections on NEB-regulated projects under construction
10	Environmental inspections on NEB-regulated projects under construction*
10	Inspections of NEB-regulated facilities under operation
11	Pipeline crossing inspections
5	Post-construction environmental inspections on recently-completed construction projects, including an inspection of operations and maintenance activity
3	Inspections in response to environmentally-related landowner concerns
4	Safety and engineering inspections of operations and maintenance activities
4	Environmental inspections of operation and maintenance activities
5	Incidents resulting in an on-site response by NEB personnel
9	Company emergency exercises in which NEB personnel observed, assessed and participated
3	Compliance-related information sharing meetings
42	Workplace inspections under the <i>Canada Labour Code</i>
1	Pre-construction inspection

* Two of these inspections were carried out simultaneously with safety and engineering inspections.

PIPELINE OPERATION AND MAINTENANCE ACTIVITIES

In 2005, the NEB introduced a risk-based approach for inspecting selected pipeline operation and maintenance activities. This risk-based approach clarifies and streamlines regulatory oversight of activities integral to the operation of approved facilities, allowing the Board and regulated companies to focus resources on non-routine activities.

In 2006, the Board received 66 notifications of operations and maintenance activities. This is a result of the substantial reduction in the amount of time required to provide effective regulatory oversight. The Board conducted a review of its approach to regulating operations and maintenance activities in August 2006 and implemented several minor improvements to its processes. This approach has resulted in a significant benefit to regulated companies by reducing the lengthy application process for operations and maintenance activities.

ENVIRONMENTAL CONDITIONS

Through inspections and company filings, the NEB monitors not only company compliance with the conditions on Board Orders or Certificates but the effectiveness of those conditions in obtaining the desired safety and environmental results. In 2006, 39 environmental conditions, such as mitigation measures or monitoring commitments, were confirmed to be effective in achieving their desired outcomes.

In 2006, 100 per cent of conditions evaluated by the NEB were confirmed as effective in achieving desired safety and environmental results.

NON-ACCORD CANADA LANDS

On Canada's non-accord, or frontier lands (lands not subject to a federal/provincial shared management agreement), conservation and safety officers inspected geophysical and drilling programs and production operations of companies to confirm compliance with NEB-approved program and relevant regulations. Occupational safety and health matters were also considered during these inspections. In 2006, conservation and safety officers conducted 24 inspections of activities and facilities on non-accord lands. Ten assurances of voluntary compliance were issued under the *Canada Labour Code Part II* and three non-compliance directions were issued under the *Canada Oil and Gas Operations Act*. Compliance was received to the satisfaction of the conservation and safety officers either while still on-site or within an agreed upon time period.

MANAGEMENT SYSTEM AUDITS

The NEB audits the management systems of NEB-regulated companies to evaluate compliance with the NEB and COGO Acts, the *Canada Labour Code Part II*, relevant regulations, and a company's own policies, practices and procedures. An audit typically includes evaluation of a company's design and construction, pipeline integrity management program, emergency preparedness and response program, safety program and environmental protection program.

The Board continued to update its management system audit program and improve planning processes, program implementation elements, performance measures and self-assessment procedures. The improvements were defined and prioritized through analysis of previous audits and an assessment of the Board's management system audit program policy, goals, objectives, processes and procedures.

In 2006, the NEB conducted two new audits and closed four previously conducted audits with 21 associated findings.

In follow-up to NEB audit reports, companies file a Corrective Action Plan with the Board that addresses each Finding. The Corrective Action Plan must be completed and verified before a Finding can be officially closed out. To date, audited companies have completed corrective actions for 72 per cent of the Findings associated with Corrective Action Plans, and 96 per cent of completed corrective actions have been verified and closed out by the Board. This indicates that the audit program and follow-up procedure are supporting the Board's mandate for protecting the public, employees and the environment.

INTEGRATED COMPLIANCE

Introduced in 2004, the NEB's Integrated Compliance Project is the basis of a program that will improve the use of compliance data, trends and knowledge related to safety and environment issues affecting NEB-regulated facilities.

While initially focused on the post-approval component of the NEB's activities, the scope of the Integrated Compliance Project grew in 2006 to more extensively address the NEB's project assessments. As a result, the Integrated Compliance Project has evolved to represent a lifecycle approach to the regulation of facilities, with more integration between the project assessment and post-approval activities. The development of the lifecycle approach to regulation will continue through 2007.

INCIDENTS AND EMERGENCIES

Emergency Management

The NEB's primary role during an emergency is to monitor the company's response and ensure that all reasonable actions were taken to protect employees, the public and the environment. The NEB also verifies that regulated companies have adequate and effective emergency management programs that mitigate the impacts associated with an emergency situation.

Regulated companies are required to provide current and up-to-date versions of their emergency response plans to the NEB for review. In February 2006, the NEB completed a review and renewal of its own emergency response procedures, including the development of an Emergency Management Program. The NEB currently maintains a manned emergency response contact phone and call down system which operates 24/7, 365 days per year. In 2006, NEB personnel responded to five on-site incidents.

The NEB encourages and participates in tabletop and full-scale emergency response exercises sponsored by pipeline companies. In 2006, the Board expanded this activity to include participation in one exercise for companies operating under the *Canadian Oil and Gas Operations Act* and eight NEB-regulated company exercises.

Incidents

The NEB requires the companies it regulates to report certain events, which are defined as incidents. These reports provide the Board with the information necessary to determine the appropriateness of the companies' response to events which could have adverse effects on safety, the environment or the security of facilities. In addition, reporting provides the NEB with the opportunity to investigate, or, when appropriate,

initiate an emergency response. When investigation determines that corrective actions are required, the Board ensures they are taken, either by the company individually or by the industry as a whole.

The following incidents must be reported to the NEB as they occur:

- the death or serious injury of a person;
- a significant adverse effect on the environment;
- an unintended fire or explosion;
- the unintended or uncontained release of low vapour pressure hydrocarbons in excess of 1 500 litres;



PIPELINE RUPTURE FREQUENCY DECLINES

The industry continues to show a significant decline in rupture frequency attributable to the effectiveness of the integrity management programs implemented by companies over the past 10 years. The NEB was the first regulator in North America to require companies to have documented integrity management programs.

Since then, integrity management programs have become universally accepted in the global pipeline industry. Details of ruptures that have occurred on NEB-regulated pipelines dating back to 1992 are published in the Safety and Environment section of www.neb-one.gc.ca

- the unintended or uncontrolled release of gas or high vapour pressure hydrocarbons;
- the operation of a pipeline beyond its design limits as determined under CSA Z662, CSA Z276 or any operating limits imposed by the Board; and
- within a processing plant, any occurrence that results in or could result in a significant adverse effect on property, the environment or the safety of people.

In 2006, 55 incidents were reported to the NEB compared with 50 in 2005, and 52 in 2004. The increase in reported incidents can be attributed to the Board's efforts to ensure that regulated companies understand their reporting obligations. The NEB is in the process of reviewing reporting requirements in an effort to achieve even greater compliance.

The following incidents were reported to the NEB in 2006:

- In late 2006, there was a single fatality during the construction phase of an NEB-regulated international power line. The NEB is conducting a review.
- The NEB has a target of zero ruptures on the pipelines it regulates. In 2006, there were no hydrocarbon pipeline ruptures; however, there was a sulphur commodity pipeline failure in July. A gas plant experienced an electrical failure due to lightning which caused a complete shutdown of the facility including the sulphur commodity pipeline heating elements. This caused the sulphur in the pipeline to solidify which effectively removed the pipeline from operation. Once electrical power was restored, the company attempted to re-melt the sulphur and put the pipeline back into operation. During this process, the pipeline failed from overpressure.

- In 2006, there were a total of 26 hazardous occurrences on non-accord frontier lands, as defined by the Oil and Gas Occupational Safety and Health Regulations under the *Canada Labour Code* Part II, down from 48 hazardous occurrences in 2005. The majority of these were reportable spills, one occurrence was the loss or damage to a support craft, one was a fire or explosion, and three were disabling injuries. The number of disabling injuries decreased from five in 2005 to three in 2006. This translates into a decrease in the frequency of disabling injuries from 2.72 per million hours worked in 2005 to 1.28 per million hours worked in 2006.

SPILLS AND RELEASES

In 2006, incidents included 40 gas and liquid releases consistent with 40 releases in 2005 and 37 releases in 2004. A release is caused by a rupture or hole in the body of a pipeline while a spill is generally associated with pipeline construction, maintenance and gas pipeline operations.

Four incidents in 2006 were caused by the failure of the pipe body: one gas release, two liquid hydrocarbon spills, and one liquid sulphur release. The remaining spills and releases were associated with leaks from piping connections or facilities equipment. All of the liquid spills were contained within company property, such as pumps or terminals or within pipeline right-of-ways. Table 5 is a breakdown of reportable releases that occurred in 2006.

SAFETY ADVISORIES

In March 2006, a serious near-miss occurred on an NEB-regulated project site. Two workers were overcome after entering an oxygen-deficient environment that had been created when an accumulator nitrogen backup system was depressurized within the confined space of the accumulator building. The NEB worked with the operator throughout the investigation,

the subsequent recommendations, and the ENFORM Safety Alert issued to industry.

The NEB is committed to sharing the information arising from its investigations in an effort to improve safety in the workplace by preventing similar occurrences.

Table 5: Gaseous and Liquid Release Reported in 2006

Incident	Number of Occurrences in 2006
Natural gas releases of any volume, sweet or sour	19
Low vapour pressure liquid hydrocarbon spills greater than 1 500 litres (all crude oil)	7
High vapour pressure liquid hydrocarbon releases such as natural gas liquids or propane	3
Releases of liquid sulphur, smaller volumes of low vapour pressure liquid hydrocarbons (diesel, gasoline and crude oil), amines, and other fluids used in and around facilities and gas processing plants	11

Spills

During 2006, there was one hydrocarbon spill greater than 100 000 litres or 100 cubic metres from an NEB-regulated pipeline. On 8 November 2006, a hard rubber scraper pig which had previously bypassed the pig receiver in Enbridge's Cromer (Manitoba) Terminal, lodged in a meter manifold causing its overpressurization and failure. All crude oil released during this event (approximately 126 cubic metres) was contained within Enbridge's Terminal. Approximately 114 cubic metres of free product was recovered and the remaining contaminated soil was managed in accordance with Enbridge's contaminated soil handling procedures.

A second incident on 28 November 2006, caused by a failed gasket, resulted in the release of 80 cubic metres of crude oil within the same facility (51 cubic metres were recovered and the rest was managed by Enbridge on site). Also significant in 2006 was a release of 20 to 30 cubic metres of crude oil from a pipe-body defect on an Enbridge pipeline near Provost, Alberta. The leak was identified on 9 August 2006 when a landowner reported a stained patch of soil in his pasture. Affected soil and groundwater appeared to have been confined to the pipeline right-of-way and was remediated by Enbridge.

The NEB's response to hydrocarbon spills includes follow-up activities to confirm that site remediation is carried out. The NEB is currently working to formalize this process. Tools are being developed to enable the NEB to more consistently and efficiently track and manage spill site remediation files. In 2006, the NEB conducted two spill follow-up inspections to assist in resolving outstanding concerns.

On non-accord frontier lands, reportable releases were down about 45 per cent from 38 releases in 2005 to 21 in 2006. The 2006 releases included 13 relatively small (less than 1 500 litre) releases of crude oil, produced-or-otherwise-contaminated water, hydraulic fluid, drilling fluid, and glycol and eight larger releases of 5 to 320 000 cubic metres of fresh or contaminated water.

ENVIRONMENTAL AND SOCIO-ECONOMIC ASSESSMENTS

Regulatory Approach

The NEB uses a risk-management approach to deliver socio-economic assessments. Routine energy projects require little regulatory intervention at the application stage. Examples include adding a valve or a meter station to an existing pipeline under known conditions. For more complex projects, the Board uses a structured risk-management approach that considers the likelihood and consequence of potential effects. This helps to focus assessment attention and resources on larger or more complex enterprises such as the Mackenzie Gas Project.

The Board strives to continually improve the effectiveness and efficiency of its facility assessments. In 2006, the Board began to clarify and simplify application requirements and associated procedures for assessment of low-risk facilities such as small cross-border pipelines. The objectives are to eliminate unnecessary application requirements and processes for small NEB-regulated pipelines, to maintain a desirable level of regulatory oversight, and to reduce the time and cost associated with regulatory decisions on small, routine pipeline facilities. These measures will better position the Board to match the scope of application assessment to the complexity and risk of each facility application.



Environmental Assessment Coordination

In accordance with *Canadian Environmental Assessment Act*, the NEB often coordinates its environmental assessment responsibilities with other government departments. On larger proposed projects where a number of government departments may be involved, the Board engages these departments in advance of receipt of an application. In this way, environmental assessment process issues are discussed and agreed upon at an earlier stage, thereby facilitating a more efficient and effective environmental assessment process once an application is received. Pre-application environmental assessment coordination also allows for early public participation in the process.

In 2006, the Board continued to partner with other government departments regarding environmental assessment coordination at both application and pre-application stages. The Board was involved in more pre-application environmental assessment coordination work than ever before, including work on the following proposed projects:

- Enbridge Pipelines Inc.'s Alberta Clipper Pipeline Project, a proposed oil pipeline from Hardisty, Alberta to the Canada-United States border near Gretna, Manitoba;
- Enbridge Pipelines Inc.'s Southern Lights Pipeline Project, a proposed diluent pipeline from the Canada-United States border near Gretna, Manitoba to Edmonton, Alberta;
- TransCanada Keystone Pipeline GP Ltd.'s Keystone Pipeline Project, a proposed oil pipeline from Hardisty, Alberta to the Canada-United States border near Haskett, Manitoba;
- TGS-NOPEC's Labrador Shelf/Davis Strait 2D Marine Seismic Program, a proposed seismic program offshore of Nunavut;
- Aurora Research Institute's Mallik Gas Hydrate Production Research Project near Tuktoyaktuk.

SUBSTITUTION UNDER THE CEA ACT

Some CEA Act requirements for major projects partially duplicate NEB Act processes and present an opportunity for increased harmonization and efficiency of environmental assessments. In 2006, the Minister of the Environment approved the substitution of the NEB's hearing process for the environmental assessment of the Emera Brunswick Pipeline application. More information about substitution can be found on page 18 of this report.

TECHNICAL EXPERTISE

In 2006, the Board was instrumental in forming a new standards technical committee under the auspices of the Canadian Standards Association. The committee will develop a consensus standard for security management programs within the oil and gas industry in Canada.

Relevant Canadian standards are incorporated by reference into NEB regulations. As a result, Board staff have been actively engaged in committee work in support of the CSA Z662 Standard on Oil and Gas Pipelines, CSA Z276 Standard on Liquefied Natural Gas, CSA B51 Standard on Pressure Equipment, and ISO/ TC 67 (Materials, equipment and offshore structures for petroleum, petrochemical and natural gas industries).

The NEB continues to host foreign delegations and provide overviews of the Canadian regulatory framework. In November 2006, our electricity team hosted a knowledge exchange with 18 delegates from South Asia. This event was organized by the U.S. Energy Association and contributed positively to international relations in regulatory areas of mutual interest.

The Board believes it is important to share its expertise nationally and internationally. During the past two years, NEB staff have made presentations at or actively participated in the organization of major industry events such as the International Pipeline Conference, the Banff Pipeline Workshop, the United Nations Economic Commission for Europe Forum on Pipeline Accidents, the Rio Pipeline Conference, and the CSA Z662 Biennial Forum. The National Energy Board is also a member of the United Nations Ad Hoc Group of Experts, providing advice and expertise in the effort to establish global standards and definitions for petroleum and mineral reserves.

NEB staff co-chaired the organizing and technical committees charged with planning the International Pipeline Conference held in Calgary in September 2006. Our staff also hold executive positions within the American Society of Mechanical Engineers Pipeline Systems Division and the International Petroleum Technology Institute – international non-profit organizations dedicated to spreading advances in pipeline technology throughout the world.

RESEARCH AND DEVELOPMENT

Research and development in the pipeline industry is international in nature. The Board actively monitors research and development by participating in organizations such as Natural Resource Canada's Panel on Energy Research and Development and the Materials Technical Advisory Committee of the CANMET Technology Centre in Ottawa, and through interaction with the U.S. Pipeline and Hazardous Materials Safety Administration.

The Environmental Studies Research Fund provides funding for environmental and social projects pertaining to petroleum exploration, development and production activities on non-accord Canada Lands. The NEB chairs and provides technical and administrative resources for the group's management board, which includes members of industry, the government and the public. In 2006, the management board approved 11 new studies, continued to provide funding to others that were previously approved, and participated in updating the CSA Standard for Offshore Structures.





In 2006, more than 3 000 people worked on the construction, maintenance and operation of NEB-regulated pipelines and for the eighth year in a row, there were no fatalities.



“Our decisions are best informed if there is direct participation from people who are affected by a proposed project. The evidence is not complete without participation from local communities.”

**Gaétan Caron, Vice-Chairman
National Energy Board**

ENGAGING CANADIANS

The National Energy Board strives to make decisions in the public interest. In 2006, the Board advanced its goal to proactively engage its full range of stakeholders and build effective relationships through face-to-face meetings with people from communities potentially affected by proposed projects. Our public engagement practices involve a broad spectrum of activities such as providing information about the NEB and its mandate, preparing people to participate effectively in Board hearings, involving stakeholders in revising guidelines and regulations, and resolving matters between regulated companies and landowners or other parties.

FAIR, TIMELY AND EFFECTIVE PUBLIC ENGAGEMENT

The Board fulfills its mandate by actively pursuing its goal of effective public engagement. This goal is achieved in part through public announcements and information sessions in potentially affected communities. Information sessions provide an opportunity for people to learn about the NEB's role throughout the lifecycle of the project and to obtain specific information about the hearing process. Pre-hearing planning conferences are sometimes held to obtain public input into the hearing process.

PARTNERS IN **RESPONSIBLE DEVELOPMENT**

UPHOLDING THE PUBLIC INTEREST

The Board promotes safety and security, environmental protection and efficient energy infrastructure and markets in the Canadian public interest. The public interest includes all Canadians and refers to a balance of economic, environmental and social interests that change as society's values and preferences evolve over time. As a regulator, the Board must consider the overall public good a project may create and its potential negative aspects, weigh its various impacts, and make a decision.

The public can participate by:

- attending information sessions and planning conferences;
- becoming an intervenor in the hearing, joining others with common interests to submit a joint intervention, or joining a non-governmental organization;
- submitting a letter of comment or where permitted, by providing an oral statement during the public hearing.

The Board takes a lifecycle approach to regulating facilities which means that a project should remain in the

HOW DOES THE NEB MAKE ITS DECISIONS?

Most major applications to the Board are decided upon only after there has been a public hearing. The public hearing process must be open, fair and objective. The Board must be free from bias and all parties must be aware of all of the evidence that is before the Board so they have the opportunity to speak to that evidence during the hearing.

All communications from parties involved in a public hearing are open and transparent. The Board does not discuss an application with any party outside of the formal hearing process once the application has been filed. After every party has had the opportunity to put their evidence and views before the Board, the Board considers all of the evidence and views before it makes its decision in the public interest.

SPEAKING TO ABORIGINAL COMMUNITIES

During 2006, Board staff traveled to Aboriginal communities in north-central British Columbia and Alberta to raise awareness about the regulatory process in preparation for a pipeline application that has since been deferred. They made presentations at two annual general assemblies of approximately 200 people, an annual assembly of 60 hereditary chiefs, a tribal council that represented seven bands and two chief-and-council meetings. Only the first two meetings were scheduled—presenters were invited to the other gatherings as a result of word-of-mouth communications from participants. According to one NEB public engagement team member:

“For the first time, members of these communities got to know who the decision-makers are and understand that the NEB is neutral. It’s been quite an opportunity to shed light on a regulatory process that in the past has been seen by the public as mysterious.”



Two main issues came to light during discussions with Aboriginal groups:

- Aboriginal communities are concerned that they do not have the capacity to participate effectively in the decision-making process; and
- Aboriginal people want to ensure that their traditional activities are minimally, if at all, affected by projects.



The Mackenzie Gas Project Panel (from left to right: Gaétan Caron, Kenneth Vollman and David Hamilton) at the Yellowknife Cultural Crossroads. Outlines of human hands, a traditional drum and a raven etched into the rock face celebrate the power of working together.

Canadian public interest from its initial design, through its construction, operation, decommissioning and, eventually, its abandonment.

EARLIER ENGAGEMENT WITH ABORIGINAL GROUPS AND COMMUNITIES

Aboriginal communities often hear about a proposed pipeline or other energy-related infrastructure directly from the company that is planning the project, long before an application is filed with the Board. The NEB believes that communities can also benefit from receiving information about our regulatory role and processes at that early stage. As a result, in 2006 the NEB public engagement team and technical advisors provided information to and met with:

- seven Aboriginal communities in north-central British Columbia and two in Alberta that would be affected by the proposed Gateway pipeline;
- an Aboriginal group and residents of Saint John, New Brunswick, who expressed significant interest in the proposed Brunswick Pipeline Project.

FLEXIBLE ENGAGEMENT APPROACHES

The Board recognizes that the nature of its formal hearing processes can make it challenging for members of the public to fully participate. In 2005, a pro-active, more flexible approach was undertaken by NEB staff by visiting 11 northern communities potentially affected by the proposed Mackenzie Gas Project.

In providing information and organizing the Mackenzie Gas Project hearing sessions, Board staff focused on inclusiveness and accessibility. Before the hearing began in January 2006, the NEB hosted a pre-hearing planning conference to gather local opinions on issues, locations, timing, and any other matters related to the hearing process. The NEB used this information to accommodate northern traditions and culture during the hearing. Once started, hearing sessions were less formal. Flexible hours were offered, the hearing room was set up in a circle to reflect northern traditions and Aboriginal drummers performed at the first NEB hearing session in Inuvik.

To further improve and refine its public engagement approaches in northern communities, the Board initiated a Northern Engagement Research Project. During 2006, the methodology of the study was confirmed and visits to four northern communities were planned for 2007.

ADDRESSING DISPUTES

While matters of safety and environmental protection may require a Board decision, there are many other issues related to access to property, access to a pipeline, land reclamation, or timing of activities where the parties are in a better position to determine the best outcomes. In such cases, NEB staff trained in interest-based approaches work with all parties to help facilitate mutually acceptable solutions.

ADDRESSING LANDOWNER COMPLAINTS

Energy companies regulated by the NEB are expected to develop relationships with and involve potentially affected people in project development discussions, during construction and throughout the operation of its facilities. While the Board expects companies to respond to any complaints received from landowners or the public throughout the lifetime of a project, NEB staff provide assistance through the Board's Landowner Complaint Resolution Program when issues cannot be worked out between the two parties.

If a landowner or member of the public contacts the NEB with a complaint, staff will discuss the issues with the parties and support them in reaching a mutually-acceptable agreement without Board involvement. Our goal is to ensure that NEB-regulated facilities are safe and that they are built and operated in a manner that protects the environment and the rights of those affected. The Board also promotes clear, open communication so that the affected parties can make informed decisions and reach agreements. The majority of complaints are resolved at this stage, generally within two weeks of initiating this course of action.

If the issue is complex, or if it is primarily related to safety or the environment, the NEB conducts a field inspection and usually facilitates a face-to-face meeting with the parties. If the parties are amenable, a facilitator will initiate the dispute resolution process and NEB safety or environment inspectors may provide technical advice to help the parties reach a resolution. In the event that the parties still cannot reach an agreement, the matter is referred to the Board for a decision.

During 2006, team members were involved in pipeline-related issues in British Columbia, Alberta, Saskatchewan, Manitoba and Ontario. In one situation, a family requested NEB assistance to resolve a long-standing complaint. Heavy equipment operating on a pipeline right-of-way running

through their property had compacted the soil. The parties agreed that the topsoil had been mixed with less productive layers below that may have resulted in stunted crop growth, diminished fruit production and tree loss. NEB staff traveled to the location, met with the parties, conducted an inspection and facilitated an appropriate resolution dispute session. Within two days, the parties came to an agreement and the landowner complaint was resolved.

Unresolved right-of-way reclamation was one of three main areas of complaint arising from industry operations in 2006. The others involved air emissions such as odours and noise, and issues related to construction and reclamation activities that may affect tile drainage or the natural water flow. Drainage issues can potentially cause water ponding, diminished crop growth or tree loss. The NEB looks for different ways to encourage companies to identify and address landowner concerns more effectively at the earliest stages of a project's lifecycle and consider technologically advanced solutions to address these concerns.

Despite the complexity of these complaints, NEB staff successfully resolved approximately 75 per cent of the complaints through discussion and information sharing, site inspections and/or appropriate dispute resolution sessions. In fact, 94 per cent of all complaints received in 2006 were resolved within 60 days. In reflecting on the challenges and achievements of the past year, a senior member of the team said:

“We started working on the landowner complaint resolution program in 1999. From my perspective, we keep getting better at what we do. There's still room for improvement, but we're communicating better, working more effectively, and we're faster. People are more satisfied with the services we're providing.”

RESPONSIVE, RELEVANT AND CLEAR COMMUNICATION

The NEB employs diverse communication strategies to inform Canadians about energy-related issues and facilitate public participation in regulatory processes. Key achievements in 2006 include:

- Developed the *Energy Pricing Information for Canadian Consumers* section on the NEB website. This new overview is designed to help Canadians understand how energy markets work.

TOPICS OF LANDOWNER COMPLAINTS

In 2006, the Board received 18 landowner complaints, the majority of which were related to the following issues*:

Landowner Rights <i>e.g. Access to property, notification, negotiation of agreements</i>	28%
Reclamation <i>e.g. Post construction clean-up</i>	24%
Impact Mitigation <i>e.g. Noise, drainage</i>	21%
Compensation <i>e.g. the Natural Resources Canada compensation process</i>	15%
Pipeline safety	12%

*Several landowner complaints had more than one underlying reason.

- Produced semi-annual *Summer and Winter Energy Outlooks*, available on the NEB's website. These updates offer objective, relevant and timely information and statistics about the short-term outlook for Canada's energy sector.
- Produced numerous publications, multi-media presentations, news releases and fact sheets designed to help Canadians become informed decision-makers.
- Initiated a revitalization of the NEB website. The goal is to build a site that is easier to use and more accessible for all Canadians.

POST-HEARING SURVEYS

The Board believes that one of the best ways to measure our performance is to ask our stakeholders for feedback. Following a hearing, the Board issues an online survey to all registered participants in order to gather feedback on our hearing process. In 2006, the majority of participants agreed or strongly agreed with the statement “Overall, I was satisfied with the NEB.”



PEOPLE STRATEGIES

Throughout 2006, the NEB continued to foster strategies and workplace practices that support and encourage our people in their efforts to achieve the highest possible standards of performance. The Board does this through innovative leadership, sound business management and effective decision-making processes that create an environment where employees have the skills, resources and motivation they need to deliver on their commitments and carry out our mandate.

The Board uses a forward-looking human resources strategy designed to attract and retain people with specific skills and experience. This initiative addresses priorities such as recruiting, leadership development, employee engagement, performance management, staffing levels, training effectiveness and succession planning.

Key goals of the strategy include:

- Attracting and retaining highly qualified people;
- Cultivating a results-based culture of excellence, using tools such as performance management and succession planning;
- Facilitating organizational learning and knowledge-sharing.

On 8 December 2006 the NEB introduced a plan for attracting and retaining staff that includes a market-based allowance for employees working in positions directly related to the energy industry and a pilot pay for performance program for all employees.

CULTURE, CAPACITY AND COMMUNITY

Every day, our employees apply their talent and skill to a broad range of ongoing team projects. The aim and scope of these projects are as diverse as the employees who contribute to them.

The Project Management Office provides business support for effective, efficient project management within the NEB. In 2006, the Project Management Office introduced tools and templates to help project managers identify and manage challenges throughout a project's lifecycle. The Project Management Office also developed a training strategy and initiated a community of practice to assist project managers, help improve their knowledge base and share best practices.

A community of practice is an informal, discipline-focused network whose members meet regularly to share information and knowledge, work collaboratively on solutions to challenges, and learn from one another. At the NEB, a number of active and productive communities focus on topics ranging from sustainable development and leadership to resources for our francophone community.

The NEB is committed to demonstrating excellence in all aspects of its work. In addition to following the Government of Canada's management direction for an accountable government that is responsive to the needs of Canadians, the NEB invests in the people, processes and systems needed to improve results. The NEB focuses on supporting career growth through development plans, mentoring and other opportunities. In particular, the NEB's leadership development program helps leaders and potential leaders develop their skills through training programs offered by the

acclaimed Banff Centre. These courses support the growth of strategic, personal, and team leadership skills.

Training is not only provided to our leadership team but is available to everyone at the NEB. Last year, NEB employees spent more than 14 000 hours in learning activities focused on everything from language skills to seminars in Aboriginal awareness and courses in pipeline corrosion. Staff may also access Campus direct E-Learning through the Canada School for Public Service which provides Public Service employees with over 155 online courses, free of charge.

The NEB recognizes our responsibility to our community. The Board is committed to creating an environment that fosters both personal and professional growth and employees are encouraged to lend their talents to a range of community and volunteer initiatives. Last year NEB employees:

- Raised more than \$58,000 to support the annual United Way/Health Partners campaign;
- Left their cars at home and walked, biked or rode public transportation to work during the Calgary Commuter Challenge;
- Swung hammers for Habitat for Humanity during our Days of Caring Program;
- Pitched in to collect more than 1 400 pounds of clothing, household items and gifts-in-kind to support the Calgary Urban Project Society.

CHALLENGES IN THE JOB MARKET

In the 15 years since moving from Ottawa to Calgary, the Board has never encountered a job market as tight as the one experienced in 2006. Escalating skill shortages and corresponding hikes in wages, benefits and perquisites threatened the NEB's ability to carry out its mandate. The NEB's annual attrition rate has more than doubled from seven per cent in 2003 to 14.5 per cent in 2006. More than half of these departures were fully-trained, experienced employees drawn from the ranks of our professional engineers, inspectors, environmental specialists and market analysts.

In Calgary's current hot job market, many of these professions are in high demand and will remain so in the foreseeable future.

The NEB continues to address challenges associated with recruiting and retaining staff. In addition, new areas of energy development such as the construction of Canada's first liquefied natural gas import terminal in Atlantic Canada and the demand for geotechnical work in the North will require skilled staff to deliver NEB expertise and regulation in these areas.

KEY CORPORATE INITIATIVES

By late 2006, the NEB had implemented approximately half of the requirements associated with adopting a Quality Management System as a framework for:

- Effective, efficient execution of Board processes;
- Ensuring stakeholder needs are met;
- Enabling process consistency where required, and flexibility where possible; and
- Encouraging continual improvement.

With the *ISO 9001:2000 Quality Management Systems – Requirement* as a guide, the Board uses both internal and external audits to track progress and ensure the Quality Management System is effective. The Board expects to complete implementation by April 2008.

The Records Renewal Project establishes the tools, training, techniques and practices that will meet the information management needs of the NEB and the Government of Canada. To date, nearly 200,000 documents, from e-mails to paper documents, are currently hosted by the Board's Records and Documents Information Management System. During the fall of 2006, the program underwent an extensive review, resulting in the decision to reframe the initiative and examine such issues as a revalidation of the program and project objectives.

NEB AS A SEPARATE EMPLOYER

The NEB has been a separate employer since December 1992. As a Public Service separate employer, the authority to carry out certain personnel management functions has been transferred from the Treasury Board to the Chairman of the NEB. With the transfer of authority comes the responsibility for creating and maintaining an NEB classification system, developing human resource management policies and practices, and collective bargaining.

Although a separate employer, the NEB continues to be bound by federal legislation. The Board is governed by the terms of the *Public Service Employment Act (PSEA)* in respect to promotion and recruitment. Employee–employer relations are subject to the *Public Service Labour Relations Act*. In addition, the NEB is subject to public service constraints and public service wage restraints. Financial matters are governed by the *Financial Administration Act* as administered by Treasury Board. Furthermore, the NEB is bound by the provisions and standards set out in the *Official Languages Act* and the *Employment Equity Act*.

For the most part, NEB employment practices are governed by legislation within the purview of the Public Service Commission while many of the compensation and benefit practices fall under the auspices of the Treasury Board.

EMPLOYEE OPINION SURVEY

The Employee Opinion Survey is part of a government-wide initiative to gather the views of employees on key work issues. The objective is to create a work environment that will help all employees provide better service to their clients and to Canadians. The latest survey was conducted in late 2005 and consisted of 116 questions covering a wide range of topics such as career and learning, health and safety, staffing, internal communication, harassment and discrimination.

In mid-2006 an Advisory Project Working Group was established to review the results and analyze the responses from the 2005 survey. While 84 per cent of employees said the NEB is a good place to work, a number of areas for improvement were identified. Once the results were examined, the working group made 25 recommendations related to workplace enhancements, communication and relationships.

FINANCIAL HIGHLIGHTS

Each year, the NEB sets out its plans and planned spending for the coming year in a document entitled *Estimates Part III – Report on Plans and Priorities* which is tabled in Parliament. At the end of the fiscal year, March 31, the NEB reports its results in a document known as the *Departmental Performance Report*. This document is also tabled in Parliament and forms part of the NEB’s accountability to the public.

These documents may be accessed at the Treasury Board’s website www.tbs-set.gc.ca

The financial information in these reports is prepared in accordance with Treasury Board of Canada accounting standards which are based on Canadian generally accepted accounting principles.

Approximately 90 per cent of the NEB’s costs are recovered from the companies it regulates. All monies collected from cost recovery are paid into the government’s Consolidated Revenue Fund. Cost recovery is based on a calendar year cycle and financial statements are prepared for the purposes of determining the costs to be recovered from NEB-regulated companies. The *National Energy Board Cost Recovery Regulations* set out which costs the NEB may recover and the manner in which money is recovered.

Regulated companies are grouped by size according to definitions set out in the regulations. Small and intermediate companies pay fixed levies. Large companies pay levies that vary according to the total amount of spending by the NEB, the amount of recoverable costs allocated to each of the three commodity groups (natural gas, crude oil and electricity) and the level of activity reported by each regulated company.

The financial statements prepared for cost recovery purposes are audited annually. These statements may be viewed online by visiting www.neb-one.gc.ca and clicking on the tab labeled *Publications*. Regulated companies who participate in the cost recovery initiative can discuss the NEB’s activities and expenditures by attending meetings of the Cost Recovery Liaison Committee. This committee meets two to four times annually and serves as a forum in which the NEB provides accountability reports and industry representatives may voice questions, make comments and offer ideas on NEB operations.

In response to a request from the electricity industry, the NEB has undertaken an initiative to amend the *National Energy Board Cost Recovery Regulations*. Consultations with industry have been conducted and amendments to the regulations have been drafted. When this process is completed, the proposed regulations will be published for comment. The proposed amendments include a change to the cost recovery year from the calendar to the fiscal year.

In terms of financial results, the NEB’s use of funding has remained within its authorized appropriation. As outlined in the Departmental Performance Report, the NEB has successfully addressed its goals and specifically identified priorities. Looking forward, the NEB faces challenges in financial management arising from an active, highly competitive economy which is triggering an increase in costs.



A WEALTH OF EXPERIENCE



CHAIRMAN, KENNETH VOLLMAN

A native of Saskatchewan, Mr. Vollman has a Master's degree in Mechanical Engineering from the University of Saskatchewan and is a member of the Association of Professional Engineers, Geologist and Geophysicists of Alberta.

Mr. Vollman has spent his career working in the energy sector gaining his practical experience with oil and gas production while working in the private sector. During his career at the NEB, Mr. Vollman gained experience in energy supply and demand, pipelines, energy regulatory issues and management. In 1998, he was designated as Chairman after serving as a Member and Vice-Chairman.

Over the past four decades, Mr. Vollman has authored and presented numerous papers at Canadian and international conferences.



VICE-CHAIRMAN GAÉTAN CARON

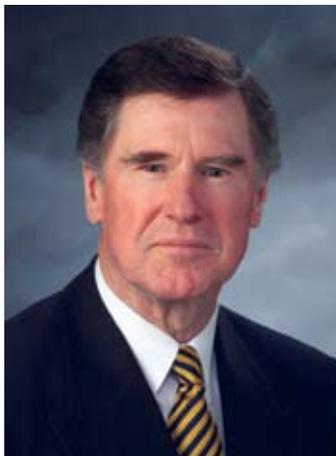
Originally from Québec City, Mr. Caron obtained his Bachelor of Rural Engineering degree from Laval University and his Master of Business Administration degree from the University of Ottawa.

Mr. Caron joined the NEB in 1979, where he has held several senior positions. Prior to his appointment as a Board Member in 2003, he held the position of Chief Operating Officer. He was designated Vice-Chairman in 2005.

Mr. Caron is the Vice-Chair of the Canadian Association of Members of Public Utilities Tribunals (CAMPUT) and a member of the Association of Professional Executives of the Public Service of Canada, the Quebec Order of Engineers and the Board of Directors of the Calgary United Way.

MEMBERS

ROWLAND HARRISON, Q.C.



Originally from Australia, Mr. Harrison has a Master of Laws degree from the University of Alberta and is a member of the bars of Nova Scotia, Ontario and Alberta. He has gained extensive advisory, consulting and research experience in various aspects of energy regulation and policy during his career.

As a Professor of Law at various Canadian universities, Mr. Harrison taught Oil and Gas Law, Advanced Petroleum Law, Constitutional Law and Administrative Law. He has held senior management positions with a number of organizations including Canada Oil and Gas Lands Administration, the Canadian Institute of Resources Law, the Institute for Research on Public Policy and the Dalhousie Institute of Environmental Studies. Before his appointment to the Board, he was a partner in the Calgary office of Stikeman Elliott, a national and international Canadian law firm.

JOHN S. BULGER



Originally from Manitoba, Dr. Bulger has a Ph.D. in Physical Chemistry from York University in Toronto, as well as a Graduate Management Diploma from McGill University in Montreal. He has experience in procurement, operations, planning, regulatory affairs and providing advice on energy issues.

Prior to being appointed to the Board, he held the position of Senior Manager, Regulatory Affairs at Maritimes and Northeast Pipeline in Halifax, Nova Scotia. He also spent almost 20 years at Gaz Métropolitain in Montreal, Quebec in various senior management positions. He began his career at DuPont of Canada Ltd.

Dr. Bulger is a member of the Chemical Institute of Canada.

KENNETH BATEMAN



Mr. Bateman holds a Bachelor of Law degree from the University of Alberta and a Master in International Business Management degree from the American Graduate School of International Management. He is a member of the Alberta Law Society, the Canadian Bar Association and the General Counsel Roundtable.

Most recently, Mr. Bateman was vice-president of Legal Affairs at ENMAX Corporation. In this capacity, he was responsible for legal services, environmental affairs and compliance and information management. Mr. Bateman has also acted as interim Regulatory Department head where he reviewed transmission and distribution applications, refilings and implementation of Alberta Energy and Utilities Board (EUB) decisions.

Mr. Bateman has extensive experience acting as senior legal counsel for a variety of organizations including a corporate commercial practice firm, investment group and technology companies.

STRATER CROWFOOT

Mr. Crowfoot holds a Bachelor of Science degree and a Master of Business Administration degree from Brigham Young University.

Mr. Crowfoot has extensive experience working with First Nations peoples in Canada. He has served as Deputy Chairman and Chairman of the Indian Taxation Advisory Board (ITAB). Mr. Crowfoot has worked to support the development of its policies, procedures and regulations. In his role as Chairman of the ITAB, his work included advising federal ministers on general tax policy, developing relationships with rate payers and their associates and directing complaint resolution.

For ten years, Mr. Crowfoot served as Head Chief of the Siksika Nation. He has also served as executive director of Indian Oil and Gas Canada.



ROLAND GEORGE

Mr. George holds a Bachelor of Science degree in Mathematics and Computer Science from McGill University, a Master's degree in Economics from Carleton University and a Master of Business Administration degree from École des Hautes Études Commerciales in Montreal.

For the past 25 years, Mr. George has worked primarily in the private energy sector. Most recently, he was senior principal at Purvin & Gertz, an international energy consulting firm. There he led the North American natural gas practice. Mr. George has also held positions with the Canadian Energy Research Institute, Gaz Métropolitain, Téléglobe Canada and Canadian Pacific Limited.

Mr. George chairs the National Energy Board's Regulatory Policy Committee and is a member of CAMPUT's Regulatory Affairs Committee.





GEORGETTE HABIB

Ms. Habib holds a Bachelor's degree in Mathematics from the American University of Beirut and a Master's degree in Economics from the University of Alberta.

For the past 24 years, Ms. Habib has been with the EUB, most recently as Manager of the Economics Group. During her time with the EUB, Ms. Habib acted as a panel member at public hearings and provided expertise and advice to the Board on regulatory and policy issues.

Ms. Habib has also lectured intermediate-level courses in micro and macroeconomics at the University of Calgary.



SHEILA LEGGETT

Ms. Leggett has a Bachelor's degree in Biology from McGill University and a Master's degree in Biology from the University of Calgary. She has regulatory experience as well as a background in environmental issues.

Recently, Ms. Leggett was a Board Member with the Alberta Natural Resources Conservation Board (NRCB) which conducts hearings into natural resource development projects. She also served as Director of Operations for the NRCB. Prior to working with the NRCB, Ms. Leggett was a vice-president and senior consultant with an environmental consulting firm. She also has experience as a project biologist and advisor focusing on reclamation programs.

Ms. Leggett has published numerous papers and made presentations at conferences across Canada.



TEMPORARY MEMBERS

DAVID HAMILTON

Originally from Scotland, Mr. Hamilton has a Master's degree in Leadership and Training from the Royal Roads University, Victoria British Columbia. Mr. Hamilton has more than 30 years of experience working in Northwest Territories in the development of people and 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.



JIM DONIHEE

Mr. Donihee was appointed Chief Operating Officer of the Board on 17 November 2003. Reporting directly to the Chairman, he is responsible for all operational and support functions of the National Energy Board; accountable for the development, execution and delivery of results identified in the Board's Strategic Plan; accountable for business relationships with Canada's energy ministries and to foster strong relationships with all principal stakeholders of the NEB.

Mr. Donihee served in the Canadian Forces for over twenty-seven years as an operational pilot, where he gained leadership experience leading groups ranging in size from 30 to 3000 people in dynamic task and performance oriented organizations. He has extensive experience in process re-engineering and change management. Retiring as Colonel from the Canadian Forces, Mr. Donihee worked in the energy industry where he introduced Knowledge Management and led initiatives that fostered organizational effectiveness, including Knowledge Exchange, leadership development and performance management.

Mr. Donihee earned a Bachelors degree in Business Administration and Computer Science from the College Militaire Royal in St.-Jean, Quebec. He was awarded the Order of Military Merit by her Excellency the Governor General of Canada, The Right Honorable Adrienne Clarkson.

Mr. Donihee was appointed Temporary Member on May 19, 2005 for a period of two years.



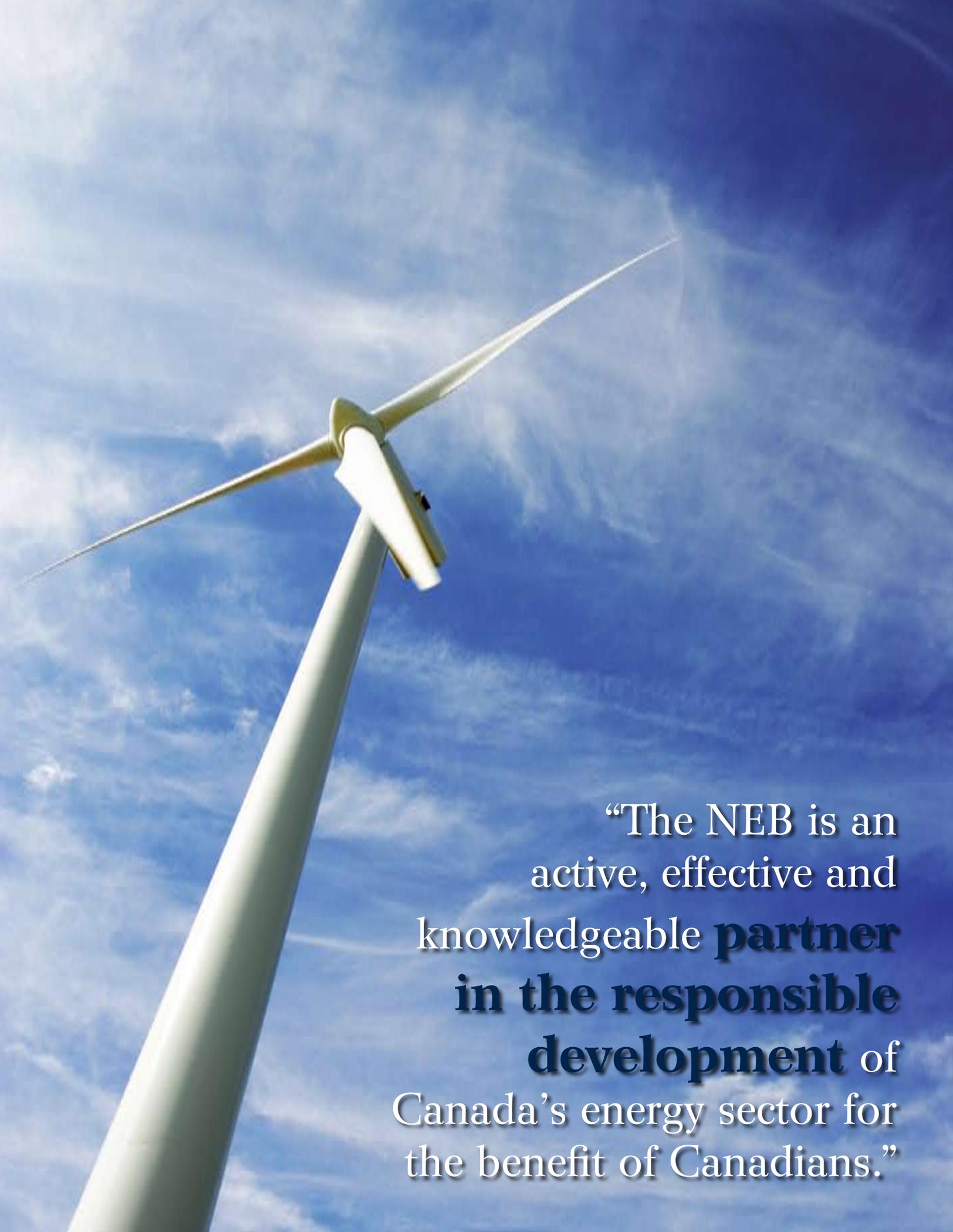
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**PARTNERS IN
RESPONSIBLE DEVELOPMENT**





“The NEB is an active, effective and knowledgeable **partner** in the responsible **development** of Canada’s energy sector for the benefit of Canadians.”