

ENBRIDGE

2015 CSR & SUSTAINABILITY REPORT

March 31, 2016, with revisions from July 7, 2017

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FORWARD-LOOKING INFORMATION

Forward-looking information, or forward-looking statements, have been included in Enbridge's 2015 CSR and Sustainability Report to provide information about the company and its subsidiaries and affiliates, including management's assessment of Enbridge and its subsidiaries' future plans and operations. This information may not be appropriate for other purposes. Forward-looking statements are typically identified by words such as "anticipate", "expect", "project", "estimate", "forecast", "plan", "intend", "target", "believe", "likely" and similar words suggesting future outcomes or statements regarding an outlook. Forward-looking information or statements included in this document include, but are not limited to, statements with respect to the following: expected earnings/(loss) or adjusted earnings/(loss); expected earnings/(loss) or adjusted earnings/(loss) per share; expected available cash flow from operations (ACFFO); expected future cash flows; expected costs related to projects under construction; expected in-service dates for projects under construction; expected capital expenditures; estimated future dividends; expected future actions of regulators; expected costs related to leak remediation and potential insurance recoveries; expectations regarding commodity prices; supply forecasts; expectations regarding the impact of the 2015 Transaction (as defined in this 2015 CSR and Sustainability Report); dividend payout policy and dividend payout expectation; the expected impact and cost of complying with current and proposed new environmental regulations, including GHG emissions regulations; business opportunities expected to arise due to climate issues or new environmental regulatory policies; future power consumption by the company and its subsidiaries; expected global demand for energy; expected sources of energy; expectations regarding safety and operational reliability; expectations regarding environmental impact of Enbridge's projects and operations; expectations regarding Enbridge's investment in pipeline technologies and emerging technologies; expectations regarding Enbridge's workforce and labor relations; expected modification to or implementation of new Enbridge policies; business plans of Enbridge entities; diversification of Enbridge's business; expectations regarding Enbridge's CSR and sustainability performance and reporting; and expectations regarding Enbridge's engagement activities, including Aboriginal engagement.

Although Enbridge believes these forward-looking statements are reasonable based on the information available on the date such statements are made and processes used to prepare the information, such statements are not guarantees of future performance and readers are cautioned against placing undue reliance on forward-looking statements. By their nature, these statements involve a variety of assumptions, known and unknown risks and uncertainties and other factors, which may cause actual results, levels of activity and achievements to differ materially from those expressed or implied by such statements. Material assumptions include assumptions about the following: the expected supply of and demand for crude oil, natural gas, natural gas liquids (NGL) and renewable energy; prices of crude oil, natural gas, NGL and renewable energy; expected exchange rates; inflation; interest rates; availability and price of labor and pipeline construction materials; operational reliability; customer and regulatory approvals; maintenance of support and regulatory approvals for the company's projects; anticipated in-service dates; the implementation of proposed environmental regulations, including GHG emissions regulations; future demands for renewable energy and alternative energy technologies; weather; the impact of the 2015 Transaction and dividend

policy on the company's future cash flows; credit ratings; capital project funding; expected earnings/(loss) or adjusted earnings/(loss); expected earnings/(loss) or adjusted earnings/(loss) per share; expected future cash flows and expected future ACFFO; and estimated future dividends. Assumptions regarding the expected supply of and demand for crude oil, natural gas, NGL and renewable energy, and the prices of these commodities, are material to and underlie all forward-looking statements. These factors are relevant to all forward-looking statements as they may impact current and future levels of demand for the company's services. Similarly, exchange rates, inflation and interest rates impact the economies and business environments in which the company operates and may impact levels of demand for the company's services and cost of inputs, and are therefore inherent in all forward-looking statements. Due to the interdependencies and correlation of these macroeconomic factors, the impact of any one assumption on a forward-looking statement cannot be determined with certainty, particularly with respect to expected earnings/(loss), adjusted earnings/(loss) and associated per share amounts, ACFFO, the impact of the 2015 Transaction on Enbridge or estimated future dividends. The most relevant assumptions associated with forward-looking statements on projects under construction, including estimated completion dates and expected capital expenditures, include the following: the availability and price of labor and pipeline construction materials; the effects of inflation and foreign exchange rates on labor and material costs; the effects of interest rates on borrowing costs; the impact of weather and customer and regulatory approvals on construction and in-service schedules.

Enbridge's forward-looking statements are subject to risks and uncertainties pertaining to the impact of the 2015 Transaction, dividend policy, operating performance, regulatory parameters, including those related to GHG emissions, project approval and support, weather, economic and competitive conditions, public opinion, changes in tax law and tax rate increases, exchange rates, interest rates, commodity prices and supply of and demand for commodities, including but not limited to those risks and uncertainties discussed in this 2015 CSR and Sustainability Report and in the company's filings with Canadian and United States securities regulators. The impact of any one risk, uncertainty or factor on a particular forward-looking statement is not determinable with certainty as these are interdependent and Enbridge's future course of action depends on management's assessment of all information available at the relevant time. Except to the extent required by applicable law, Enbridge assumes no obligation to publicly update or revise any forward-looking statements made in this 2015 CSR and Sustainability Report or otherwise, whether as a result of new information, future events or otherwise. All subsequent forward-looking statements, whether written or oral, attributable to Enbridge or persons acting on the company's behalf, are expressly qualified in their entirety by these cautionary statements.

CSR & SUSTAINABILITY AT ENBRIDGE

MESSAGE FROM AL MONACO, PRESIDENT & CHIEF EXECUTIVE OFFICER

Dear Reader:

2015 was a pivotal year for the energy industry and one in which the connection between energy, environment and the economy came into even sharper focus.

An extended period of low prices for oil and natural gas combined with increasingly competitive prices for renewables to influence energy market fundamentals. Regulatory frameworks for energy production, transportation and consumption continued to shift in response to changing public and consumer expectations. New plans for climate action emerged at the regional, national and international levels.

For Enbridge, our ability to understand the connections between these developments is critical to our ability to ensure the long-term sustainability of our business. It is also critical to our ability to help sustain the people, communities and natural environments that depend on us.

Through our *2015 Corporate Social Responsibility (CSR) & Sustainability Report* on our social and environmental performance, we share the actions we are taking to integrate social and environmental considerations into our business decision making. Preparing this report has helped us hold ourselves accountable for the results we have achieved to date, as well as the work that still needs to be done.

As always, our report contains detailed information on how we are applying sustainable development principles and practices in areas that range from business ethics to supply chain management to research and innovation. I would like to draw your attention to three areas in particular.

On our top corporate priority of **safety and operational reliability**, I am pleased to be able to point to continued improvement in our performance. Employee injury and lost-time rates in 2015 were the lowest they have been since we started tracking them—notwithstanding the fact that the total number of hours worked last year increased. In addition, all of our business segments enjoyed strong performance in detecting and preventing spills and releases from our pipelines and distribution systems, even as we moved record volumes on our liquids systems.

As yearly incident rates are lagging indicators of performance, this report also discusses the steps we are taking on leading indicators that will help us sustain high levels of safety and environmental performance over the longer term. These include expanded programs for employee and contractor training, as well as emergency response coordination and training. They also include industry-leading levels of investment in improved technologies and management systems for leak detection and spill prevention.

How we are **engaging with stakeholders** is another leading indicator that I track closely. Be it an oil or gas pipeline, an electrical transmission line or a renewable energy project, the North American public is demanding increased confidence in energy regulators and energy infrastructure companies. This has created a highly challenging environment for some of our projects and operations. It means that Enbridge's competency in responding to the demand for new types of engagement on energy issues is now a key success factor for us in the North American energy landscape.

This report looks at some of the strategies and systems we are putting in place to achieve a more rigorous approach to engagement, both within and outside of regulatory processes. It provides examples of changes we are making to the way we are engaging with Indigenous peoples, as well as with internal and external stakeholders that include local communities, environmental organizations, and our employees and contractors.

Engagement has long been about doing a better job of listening and hearing. But now, equally importantly for us, it is also about demonstrating how we are acting on what we hear. And it means responding in ways that are more transparent and accountable to the groups whose concerns we are addressing.

Better definition of Enbridge's role in a **lower-carbon future** is the third performance area that we put particular focus on in 2015. As a company with businesses that span the energy spectrum from oil pipelines to natural gas distribution and processing to renewable energy and transmission, we are uniquely positioned to contribute to the transition to a lower-carbon future by advancing energy diversification while ensuring energy supply.

In 2015 we consulted extensively on an updated corporate Climate Policy that provides new guidance on emissions reduction and on how we are managing climate-related risks and opportunities. We are pleased to provide information on our updated policy in this report.

As with our financial results, our sustainability results are driven by our people, who embrace our core values of Integrity, Safety and Respect in support of our communities, the environment and each other. I hope that after reading this report you will feel, as I do, that we have an exceptional team that is dedicated to learning and to making progress across all of our key performance areas. I thank them for their ongoing efforts and contribution to making our business more sustainable. We welcome your feedback on this report.

Sincerely,



Al Monaco

March 2016

MESSAGE FROM LINDA COADY, CHIEF SUSTAINABILITY OFFICER

Dear Reader:

Welcome to Enbridge's *2015 Corporate Social Responsibility (CSR) & Sustainability Report*.

Each year, we evolve our CSR and sustainability reporting to meet the changing needs of our business and stakeholders. This year was no exception and our 2015 report contains several new attributes.

Most importantly, we have included a more in-depth discussion of our corporate strategy and priorities and, in particular, those that pertain to our environmental, social and governance (ESG) performance. You'll see that, as our sustainability reporting becomes more focused, our ESG performance is becoming more integrated with our core business, especially in the areas of energy transition and sustainability.

We've also provided greater discussion of our significant challenges related to climate change, and to how we are responding to new climate risks and opportunities. In 2015, I had the great privilege of serving on the Alberta government's Climate Advisory Panel which, after extensive engagement with Albertans, provided recommendations to the Alberta government on how to reduce the province's GHG emissions through its Climate Leadership Plan. While the Alberta government is still working out the details of its new plan, I can say for certain that my experience on the panel indelibly impressed upon me the broad range of opportunities available to companies, communities and individuals interested in acting on climate issues. In this report you can read about how Enbridge is responding to some of those opportunities through our new Climate Policy and other initiatives.

If you are a return reader to this report, you will know that we have set ourselves a multi-year goal of obtaining third-party assurance on the key performance indicators associated with our GHG emissions, energy use, health and safety metrics, and our performance with regard to spills and releases. In 2015 we made progress toward this important goal by introducing new data management and control requirements to improve the rigor of our internal data collection processes. This has improved the accuracy of the information disclosed in this report as well as accountability within the company for the data that it contains.

To compile this report, we rely on groups of subject-matter experts from across our company to provide input on the topics that our stakeholders have identified to be important to them. I greatly appreciate the expertise and dedication that our internal experts have contributed to Enbridge and to this report. I also greatly appreciate the contribution to this report made by Enbridge's CSR, Communications and IT teams.

As always, I welcome your feedback on we can do to make this report better.

Sincerely,



Linda Coady

March 2016

CSR & SUSTAINABILITY AT ENBRIDGE: AN OVERVIEW

Definition and Scope of CSR & Sustainability at Enbridge

We use the terms “CSR” and “sustainability” interchangeably in this report.

Our CSR Policy, which has governed CSR & sustainability at Enbridge since 2004, covers business ethics and transparency; environment, health and safety; stakeholder, Aboriginal and Native American engagement; employee relations; human rights; and community investment. This policy applies to the activities we undertake anywhere in the world by, or on behalf of, Enbridge and our subsidiaries and affiliates whose operations we manage.

As we state in the policy, we define CSR as “conducting business in a socially responsible and ethical manner; protecting the environment and the safety of people; supporting human rights; and engaging, learning from, respecting and supporting the communities and cultures with which we work.”

We recognize the increasing public demand for corporations to be accountable and transparent in all of their business activities, and to be seen as proactively dealing with the issues of the day. With that in mind, in 2002, we incorporated the Voluntary Principles on Security and Human Rights—which were established by the U.S. Bureau of Democracy, Human Rights and Labor and which address responsible corporate action in conflict zones—into our Statement on Business Conduct. In addition, in 2003, we became a signatory to the United Nations Global Compact (UNGC) and committed to following its principles, including the “Precautionary Approach,” which states that “businesses should support a precautionary approach to environmental challenges.”

CSR and sustainability are not new to Enbridge, and we have a long history of integrating this area into our decision making in alignment with global milestones. *For more information, please see the Integrating CSR & Sustainability Timeline section of this report.*

Our Core Values and CSR Policies

Our core values and CSR and sustainability policies help us integrate social and environmental considerations into all aspects of our business decision making and performance.

Our value statement is, “Enbridge employees demonstrate Integrity, Safety and Respect in support of our communities, the environment and each other.” This statement serves as a foundation, and a constant guide by which we make our decisions, as a company and as individual employees, every day. *For more information, please see the Strategy & Priorities section of this report.*

As well, a variety of other policies and related documents provide direction for specific CSR- and sustainability-related activities, including our:

- Aboriginal and Native American Policy,
- Climate Policy, and
- Community Investment Program Criteria and Guidelines.

CSR & Sustainability Reporting at Enbridge

Our 2015 CSR & Sustainability Report includes performance data from, and events that took place in, 2015. We prepare a CSR and sustainability report each year, and we published our 2014 CSR & Sustainability Report, which

focused on 2014 data, in March 2015.

Our CSR and sustainability reports only cover information on the assets that Enbridge operates. The word “Enbridge” refers to the entire company, our subsidiaries and affiliates. Where possible, the data refer collectively to all of the facilities that Enbridge operates. However, when we report information pertaining to a specific business segment—for example, Liquids Pipelines—we note it in the text.

Dollar figures refer to Canadian dollars unless otherwise indicated.

We prepared our *2015 CSR & Sustainability Report* using the Global Reporting Initiative (GRI) G4 sustainability reporting guidelines, which are intended to serve as a generally accepted framework for reporting on an organization’s economic, environmental and social performance. The GRI G4 guidelines were designed for use by organizations of any size, sector or location and take into account the practical considerations faced by organizations ranging from small enterprises to those with extensive and geographically dispersed operations. The guidelines contain general and sector-specific content that has been agreed on by a wide range of stakeholders around the world to be generally applicable for reporting an organization’s sustainability performance.

Under the GRI G4 guidelines, our *2015 CSR & Sustainability Report* is classified as comprehensive. The report has not been externally audited, although plans are in place to have sections of the report audited in the coming years.

Topics of High Importance to Stakeholders

This report focuses on the CSR- and sustainability-related topics that would substantively influence stakeholders’ assessments and decisions regarding Enbridge.

To determine which topics we should report on, in 2014, we conducted an assessment of the CSR and sustainability-related topics that matter most to our stakeholders and to our employees. Here is how the assessment took place:

In early 2014, the external consultant we had hired assembled a list of possible topics based on a review of:

- stakeholder feedback and engagement,
- topics identified in the ISO 26000 social responsibility guidance,
- topics identified in the GRI’s Oil and Gas Sector Supplement,
- topics identified in the GRI’s G4 reporting guidelines,
- public debate in the media, and
- best practice norms exhibited by our peer companies.

In the latter half of 2014, our consultant then interviewed external stakeholders representing the following areas:

- Canadian industry associations (two individuals),
- customers/shippers (two individuals),
- socially responsible investor (one individual),
- traditional investor (one individual),
- U.S. landowner (one individual),
- Canadian landowner (one individual),
- U.S. right-of-way community members (two individuals),
- Canadian right-of-way community members (two individuals),
- environmental non-governmental organization representative (one individual),
- regulator (one individual), and
- Aboriginal and Native American community representatives (two individuals).

Our consultant asked participating stakeholders to speak about the topics that were most important to them, and to comment on any aspect of our CSR and sustainability performance.

In October 2014, our consultant continued the assessment by engaging with employee subject matter experts representing all of our business segments and the following specialty areas:

- Aboriginal and Native American Engagement,
- Community Investment,
- Community and Landowner Engagement,
- Compliance,
- Economic Benefits and Finance,
- Energy, Climate Change and the Environment,
- Governance,
- Health & Safety,
- Human Resources,
- R&D and Innovation,
- Product Responsibility,
- Supply Chain Management, and
- Maintaining the Fitness of Enbridge's Systems & Leak Detection (Systems Integrity).

Our consultant also interviewed one member of Enbridge's Board of Directors to supplement the other interviews.

Following the interviews and engagement activities, our consultant processed the information collected during the interactions and created the following ranking:

SCALE	CSR & SUSTAINABILITY-RELATED TOPICS OF HIGH IMPORTANCE TO STAKEHOLDERS IN 2014
High relevance to Enbridge and our Stakeholders	Maintaining the Fitness of Enbridge's Systems and Leak Detection Energy & Climate Change Aboriginal & Native American Rights & Engagement
	Human Health & Safety Emergency Preparedness & Response Stakeholder Engagement
Medium relevance to Enbridge and our Stakeholders	Environment & Land Management Economic Impact & Benefits Customer Relations (Service Reliability) Community Investment
	Business Conduct & Ethics (including compliance with permitting and licensing) Employee Relations (Talent Attraction, Retention, Development & Engagement)
Lower relevance to Enbridge and our Stakeholders	Sustainable Supply Chain & Procurement

It is important to note that, while our internal and external stakeholders ranked some topics higher in terms of relevance than others, collectively, they said that all of the topics identified in our 2014 Assessment are important. Consequently, we have addressed all of them in our *2015 CSR & Sustainability Report*.

In addition to the topics listed above, we have included in this report two other topics that are important. While stakeholders did not explicitly identify these other topics during the assessment process we believe that growth and investment in these two areas are central to our CSR and sustainability performance as well as to our evolution as an energy company of the future. These two additional topics are:

- Renewable & Alternative Energy, and
- R&D and Innovation.

Following are definitions for each of the topics important to our stakeholders, and brief explanations of how they link to our business priorities:

Maintaining the Fitness of Enbridge's Systems and Leak Detection

How we ensure that our systems for energy distribution and delivery are sound and reliable. If we develop and operate strong and highly reliable systems, we can continue to execute on our strategic priorities, and reduce and avoid social and environmental risks and impacts.

Energy & Climate Change

How we manage our energy use and reduce our GHG and other emissions. Also, how we help our customers reduce their energy use through demand-side management (DSM) programs. If we invest the resources it will take to reduce our—and our customers'—energy use and resulting emissions, we will save costs and support the transition to a lower-carbon future.

Aboriginal & Native American Rights & Engagement

How we deal with Aboriginal and Native American rights and title issues and how we engage with Aboriginal and Native American communities on economic decision making and benefits. By properly recognizing and respecting Aboriginal rights and culture, and by including Aboriginal and Native American communities in planning and implementing our projects and operations, we reduce economic risk, improve social and environmental outcomes, and enhance our ability to execute on our strategic business priorities.

Human Health & Safety

How we protect people and ensure that we comply with all applicable safety policies, requirements and commitments. By doing everything we can do in this area, we live up to our Safety value and prevent incidents.

Emergency Preparedness & Response

How we prepare for and respond to emergencies created by operations such that we minimize impacts and ensure safety. By preparing for and responding to emergencies in the most efficient and effective way possible, we live up to our Safety value, and avoid social and environmental, impacts, costs and displacement.

Stakeholder Engagement

How we engage stakeholders who are affected by, or who can affect, our activities and operations. Also, how we collaborate with stakeholders to build long-term relationships, create shared value, reduce our environmental impact, improve safety and innovate for the future. If we engage stakeholders in ways that create value for them and for us,

we improve our projects and our ability to execute on our strategic priorities.

Environment & Land Management

How we conserve biodiversity, and manage our land and water use. Also, how we manage our waste and emissions of ozone-depleting substances. By carefully managing our impact on the environment, we save costs and prevent environmental and social incidents, helping us to maintain our social license to operate.

Economic Impact & Benefits

How we economically impact various stakeholders through investment returns, taxes, capital and operational spending, salaries and community investments. If our stakeholders are able to share the results of Enbridge's financial strength, we are better able to maintain our social license to operate, and to execute on our strategic priorities.

Community Investment

How our community investments impact communities. If our community stakeholders are able to benefit from Enbridge's financial strength and from collaborating with employees, we are better able to maintain our social license to operate, and improve our ability to execute on our strategic priorities.

Business Conduct & Ethics

How we prevent activities related to anti-corruption and bribery and live up to the commitments in our Statement on Business Conduct. By living up to our commitments, we live up to our core values of Integrity, Safety and Respect. We also maintain credibility and trust in the eyes of our stakeholders.

Also, how we respect and comply with permitting and licensing laws and manage the regulatory impacts on our business. By complying with the law, we live up to the commitments in our Statement on Business Conduct, reduce legal costs and improve our ability to execute on our strategic priorities.

Employee Relations: Talent Attraction, Retention, Development & Engagement

How we attract, retain, develop and engage skilled employees, and motivate them to remain engaged throughout their careers. Also, how we maintain a healthy workplace and ensure compliance with health and wellness policies and commitments. Maintaining an engaged workforce is key to achieving our business objectives and fulfilling our social and environmental commitments.

Sustainable Supply Chain & Procurement

How we incorporate sustainability into our supply chain through our procurement processes. By incorporating sustainability into our supply chain, we take on the responsibility of positively impacting social and environmental issues, thereby improving our ability to execute on our strategic priorities.

Renewable & Alternative Energy

How we invest in energy sources that are not derived from hydrocarbons, and in the technologies that support them. By investing in these energy sources and technologies, we are preparing Enbridge for the opportunities that will come with a lower-carbon future.

Customer Relations

How we do business with our customers. If we satisfy our customers' needs, and continually change our business to

keep up with changing circumstances, we will stay in business.

R&D and Innovation

Our investments in the research and development (R&D) and innovative technologies that improve the fitness of our systems, our leak detection abilities and our damage prevention capabilities. Also, our investments in the R&D and innovative technologies—such as clean power and energy storage—that have the potential to support future business growth.

ABOUT ENBRIDGE

OUR COMPANY

Overview

Enbridge is a North American leader in delivering energy. As a transporter of energy, we operate, in Canada and the U.S., the world's longest crude oil and liquids transportation system. We also have a significant and growing involvement in natural gas gathering, transmission and midstream businesses. As a distributor of energy, we own and operate Canada's largest natural gas distribution company and provide distribution services in Ontario, Quebec, New Brunswick and New York State. As a generator of energy, we have interests in nearly 2,800 MW (2,000 net) of renewable and alternative energy generating capacity, which is operating, secured or under construction, and we continue to expand our interests in wind, solar and geothermal power. We employ almost 11,000 people, primarily in Canada and the U.S.

Our vision is to be the leading energy delivery company in North America. In pursuing this vision, we play a critical role in enabling the economic well-being and quality of life of North Americans, who depend on access to plentiful energy. We transport, distribute and generate energy, and our primary purpose is to deliver the energy North Americans need in the safest, most reliable and most efficient way possible.

Among our peers, we strive to be the leader, which means not only leadership in value creation for shareholders but also leadership with respect to worker and public safety and environmental protection associated with our energy delivery infrastructure, as well as in customer service, community investment and employee satisfaction. Driven by this vision, we deliver value for shareholders from a proven and unique value proposition, which combines visible growth, a reliable business model and a dependable and growing income stream.

Our initiatives center around the following eight areas of strategic emphasis:

- commitment to safety and operational reliability,
- focus on project management,
- preservation of financing strength and flexibility,
- strengthening of core businesses,
- development of new platforms for growth and diversification,
- upholding of Enbridge's core values,
- maintenance of our social license to operate, and
- attraction, retention and development of highly capable people.

We review strategies at least annually under the direction of our Board of Directors, and provide guidance for our operations and future growth. While each area plays an important role in the execution of our broader long-range plan, the most significant developments in our business over the past three years have been in the areas of operations management and the pursuit of growth projects, both in our core businesses as well as through new ventures.

We carry out our activities through five business segments:

- Liquids Pipelines,
- Gas Distribution,
- Gas Pipelines, Processing & Energy Services,
- Sponsored Investments, and
- Corporate.

Liquids Pipelines

Our Liquids Pipelines business segment (LP) comprises the ownership and operation of crude oil and other liquid hydrocarbons pipelines and terminals in Canada and the U.S. Until August 31, 2015, LP consisted of common carrier and contract crude oil, NGL and refined products pipelines and terminals in Canada and the U.S., including the Canadian Mainline, Regional Oil Sands System, Seaway Crude Pipeline System, Flanagan South Pipeline, Southern Lights Pipeline, Spearhead Pipeline and other feeder pipelines. Effective September 1, 2015, pursuant to our 2015 transaction¹, we transferred to the Fund Group (which includes the Enbridge Income Fund, Enbridge Commercial Trust, Enbridge Income Partners LP, and subsidiaries of Enbridge Income Partners LP), the Canadian Mainline, Regional Oil Sands System, the Canadian portion of the Southern Lights Pipeline and certain residual rights and/or obligations relating to certain terminal and storage assets. We now report the performance of these transferred assets under our Sponsored Investments business segment from the date of transfer.

As at December 31, 2015, some of the assets in LP include:

- a 50 percent interest in the Seaway Crude Pipeline System, which transports various grades of crude oil from Cushing, Oklahoma to the U.S. Gulf Coast,
- a 100 percent interest in the Flanagan South Pipeline project, which transports crude oil from our terminal at Flanagan, Illinois, to Cushing, Oklahoma,
- the Spearhead Pipeline, a long-haul pipeline that transports various grades of crude oil from Flanagan, Illinois, to Cushing, Oklahoma,
- the Southern Access Extension, a pipeline that transports crude oil from Flanagan, Illinois, to Patoka, Illinois, and,
- other feeder pipelines, which primarily include: our 85 percent interest in Olympic Pipe Line Company, the Normal Wells System, our interests in a number of liquids pipelines in the U.S. (including the Toledo Pipeline, which connects with the EEP Mainline at Stockbridge, Michigan), and our 75 percent joint venture interest in Eddystone Rail.

Gas Distribution

Our Gas Distribution business segment (GD) consists of our natural gas utility operations, the core of which is Enbridge Gas Distribution (EGD), which serves residential, commercial and industrial customers, primarily in central and eastern Ontario, as well as in northern New York State. GD also includes natural gas distribution activities in Quebec and New Brunswick, primarily through Enbridge Gas New Brunswick (EGNB).

Enbridge Gas Distribution - EGD is Canada's largest natural gas distribution company and has been in operation for more than 160 years. It serves over two million customers in central and eastern Ontario and parts of northern New York State.

The Ontario Energy Board and the New York State Public Service Commission regulate EGD's utility operations. EGD is a reporting issuer in each of Canada's provinces.

Other Gas Distribution and Storage - Other gas distribution operations include natural gas distribution utility operations in Quebec and New Brunswick, the most significant being EGNB, which we wholly own and operate. EGNB owns the natural gas distribution franchise in New Brunswick and has approximately 12,000 customers. New Brunswick Energy and Utilities Board regulates it.

Gas Pipelines, Processing & Energy Services

Our Gas Pipelines, Processing & Energy Services business segment (GPP&ES) consists of our investments in natural gas pipelines, gathering and processing facilities and energy services businesses, along with renewable energy and transmission facilities. Effective September 1, 2015, pursuant to the 2015 transaction¹, we transferred to the Fund Group (which includes the Enbridge Income Fund, Enbridge Commercial Trust, Enbridge Income Partners LP, and subsidiaries of Enbridge Income Partners LP) certain Canadian renewable energy assets that are reported under the Sponsored Investments segment from the date of transfer.

Investments in natural gas pipelines include our interests in the Vector Pipeline and transmission and gathering pipelines in the Gulf of Mexico. Investments in natural gas processing include our interest in Aux Sable, a natural gas extraction and fractionation business located near the terminus of the Alliance Pipeline and Canadian Midstream assets located in northeast B.C. and northwest Alberta. The energy services businesses undertake physical commodity marketing activity and logistical services, oversee refinery supply services and manage our volume commitments on the Alliance Pipeline, Vector Pipeline and other pipeline systems.

Sponsored Investments

Effective September 1, 2015, pursuant to the 2015 Transaction¹, our Sponsored Investments business segment includes our 89.2 percent economic interest in the Fund Group (which includes the Enbridge Income Fund, Enbridge Commercial Trust, Enbridge Income Partners LP, and subsidiaries of Enbridge Income Partners LP). Also included within Sponsored Investments is our 35.7 percent economic interest in Enbridge Energy Partners (in addition to a US\$1.2 billion investment in EEP preferred units) and our interests in both the Eastern Access and Lakehead System Mainline Expansion projects held through Enbridge Energy, Limited Partnership. We, through our subsidiaries, manage the day-to-day operations of, and develop and assess opportunities for, each of these investments, including both organic growth and acquisition opportunities.

The Fund Group's primary operations include three core businesses: Liquids Pipelines, Gas Pipelines and Green Power. Effective September 1, 2015, pursuant to the 2015 Transaction¹, we transferred to the Fund Group certain Canadian renewable energy assets, the Canadian Liquids Pipelines business, which comprises the Canadian Mainline, Regional Oil Sands System, the Canadian portion of the Southern Lights Pipeline and certain residual rights and/or obligations relating to certain terminal and storage assets. *For more information, please see Enbridge's 2015 MD&A.*

Fund Group

Liquids Pipelines - In addition to the liquids pipelines assets transferred as part of the 2015 Transaction¹, the Liquids Pipelines business also operates a crude oil gathering system and trunkline pipeline in southern Saskatchewan and southwestern Manitoba, connecting to the Mainline System at Cromer, Manitoba. In addition, Liquids Pipelines includes the Canadian portion of the Bakken Expansion Pipeline, an interest acquired in Southern Lights Pipeline in November 2014, as well as the Hardisty Contract Terminals and Hardisty Storage Caverns located near Hardisty, Alberta.

The Mainline System comprises the Canadian Mainline and the Lakehead System. The Canadian Mainline is a common carrier pipeline system that transports various grades of oil and other liquid hydrocarbons within western

Canada and from western Canada to the Canada/U.S. border near Gretna, Manitoba, and Neche, North Dakota, and from the U.S./Canada border near Port Huron, Michigan, and Sarnia, Ontario, to eastern Canada and the northeastern U.S. The Canadian Mainline includes six adjacent pipelines, with combined design operating capacity of approximately 2.85 million bpd that connect with the Lakehead System at the Canada/U.S. border (and form the Mainline System), as well as four crude oil pipelines and one refined products pipeline that deliver into eastern Canada and the U.S. It also includes certain related pipelines and infrastructure, including decommissioned and deactivated pipelines.

Gas Pipelines - The Alliance Pipeline, which includes both the Canadian and the U.S. portion of the Alliance pipeline, consists of approximately 3,000 kilometers (1,864 miles) of integrated, high-pressure natural gas transmission pipeline and approximately 860 kilometers (534 miles) of lateral pipelines and related infrastructure. The Alliance Pipeline transports liquids-rich natural gas from northeast B.C., northwest Alberta and the Bakken area in North Dakota to the Alliance Chicago gas exchange hub downstream of the Aux Sable NGL extraction and fractionation plant at Channahon, Illinois. The Canadian and U.S. portions of the Alliance Pipeline have annual firm service shipping capacity to deliver 1.455 billion cubic feet per day and 1.325 billion cubic feet per day, respectively. The Fund Group owns 50 percent of the Canadian portion of the Alliance Pipeline and 50 percent of the U.S. portion of the Alliance Pipeline. Natural gas transported on the Alliance Pipeline downstream of the Aux Sable plant can be delivered to two local natural gas distribution systems in the Chicago area and five interstate natural gas pipelines, providing shippers with access to Midwest and eastern natural gas markets.

Green Power - Within Green Power, the Fund Group has interests of over 500 megawatts (MW) of net renewable and alternative power generation capability prior to the completion of the 2015 Transaction¹. Following the transfer of additional renewable energy assets from Enbridge as part of the 2015 Transaction, Green Power's net renewable and alternative power generation capability increased to approximately 1,050 MW at year end.

U.S. Sponsored Investments

Enbridge Energy Partners (EEP) owns and operates crude oil and liquid petroleum transportation and storage assets, natural gas and natural gas liquids gathering, treating, processing and transportation assets and marketing assets in the U.S. EEP holds its natural gas and natural gas liquids businesses directly and indirectly through its partially owned subsidiary, Midcoast Energy Partners L.P (MEP). Significant assets include the Lakehead System, which is the extension of the Canadian Mainline in the U.S., the Mid-Continent Crude Oil System consisting of an interstate crude oil pipeline and storage facilities, a crude oil gathering system and interstate pipeline system in North Dakota and natural gas assets located primarily in Texas. Subsidiaries of Enbridge provide services to EEP in connection with the operation of its liquids assets, including the Lakehead System.

Enbridge Energy, Limited Partnership (EELP) holds assets that Enbridge and EEP jointly fund. Included within EELP is the U.S. segment of the Alberta Clipper Pipeline. The U.S. portion of the Alberta Clipper Pipeline connects with the Canadian portion of the Alberta Clipper Pipeline at the border near Neche, North Dakota, and provides transportation service to Superior, Wisconsin. We funded 66.7 percent of the project's equity requirements through EELP, while 66.7 percent of the debt funding was made through EEP. On January 2, 2015, we transferred our 66.7 percent interest in the U.S. segment of Alberta Clipper to EEP

Corporate

Our Corporate business segment consists of a number of functions that support Enbridge as a whole, including Finance, Human Resources, Information Technology, Legal, Public and Government Affairs, and other back-office functions. The majority of the costs for these functions are fully allocated to our operating business segments, although some of these costs, particularly financing costs, are retained within the Corporate business segment.

Our Corporate business segment also consists of our 38.9 percent investment in Noverco Inc. common shares, new business development activities, general corporate investments and financing costs not allocated to the business segments. Other corporate costs include dividends on Preference Shares as such dividends are a deduction in determining earnings attributable to holders of Common Shares.

¹ “2015 Transaction” refers to the transaction during which Enbridge Income Partners LP, which is a limited partnership established under the laws of Alberta, acquired 100 percent interests from Enbridge and IPL System Inc., which is a corporation incorporated under the laws of Alberta and a wholly owned subsidiary of Enbridge, in the Canadian segment of the Mainline System, the Regional Oil Sands System and interests in four wind farms situated in Alberta and Quebec together with other assets for aggregate consideration of \$30.4 billion plus incentive distribution and performance rights, less working capital adjustments. The transaction was completed on September 1, 2015. *For more information, please see Enbridge’s 2015 Annual Information Form.*

For more information, please see Enbridge Inc.’s 2015 Annual Information Form.

The map below shows our operations, including the headquarters for Enbridge, Energy Energy Partners and Enbridge Gas Distribution.



- 1 Enbridge Inc. and Enbridge Income Fund Holdings Inc. Headquarters, Calgary, Alberta, Canada
- 2 Enbridge Energy Partners, L.P. and Midcoast Energy Partners, L.P. Headquarters, Houston, Texas, USA
- 3 Enbridge Gas Distribution Headquarters Toronto, Ontario, Canada

- Liquids Systems and Joint Ventures
- Natural Gas Systems and Joint Ventures
- Power Transmission
- ▨ Gas Distribution
- 🌿 Wind Assets
- ☀️ Solar Assets
- 🌋 Geothermal Assets
- 🏠 Gas Assets
- 🗄️ Storage
- 🏭 Waste Heat Recovery
- 🔋 Fuel Cell
- 🚂 Rail
- 🚚 Trucking Facility

Governance

We provide full details on Enbridge's governance structure and practices in our Management Information Circular, which is available on Enbridge.com.

Enbridge's Stakeholders

We are accountable to a range of stakeholders, including:

- associations and civil society groups,
- customers,
- debt holders,
- employees, contractors, unions, Board of Directors,
- environmental and other non-governmental organizations,
- governments and government regulatory bodies in Canada and the U.S.,
- landowners,
- media, and
- right-of-way communities.

We do not consider Aboriginal and Native American groups to be stakeholders in the way that other groups are because we have a legal duty to consult with them. *For more information, please see the Aboriginal & Native American Rights & Engagement and the Stakeholder Engagement sections of this report.*

Memberships

We maintain memberships in or are affiliated with a number of associations and advocacy organizations, including:

- Alberta Association for Conservation Offsets
- Alberta Chamber of Commerce
- Alberta Emerald Foundation
- American Gas Association
- American Petroleum Institute
- American Society of Mechanical Engineers
- Association of Certified Fraud Examiners (ACFE)
- Association of Oil Pipe Lines
- Association for Financial Professionals
- Atlantic Centre for Energy
- Canadian Association of Petroleum Producers
- Canadian Business for Social Responsibility
- Canadian Chamber of Commerce
- Canadian Defense and Foreign Affairs Institute
- Canadian District Energy Association
- Canadian Energy Efficiency Alliance
- Canadian Energy Pipeline Association
- Canadian Gas Association
- Canadian Petroleum Tax Society
- Canadian Solar Industries Association
- Canadian Standards Association

- Canadian Wind Energy Association
- Circle for Aboriginal Relations
- Common Ground Alliance
- Compliance & Ethics Leadership Council of the Corporate Executive Board
- Conference Board of Canada
- Corporate Ethics Management Council (Conference Board of Canada)
- Duluth Area Chamber of Commerce
- Edison Welding Institute
- Energy Council/Center for Environmental Energy Research
- Energy Council of Canada
- Fédération des chambres de commerce du Québec
- Gas Processors Association
- Globe Foundation EXCEL Partnership
- International Institute for Sustainable Development
- International Pipeline Conference Foundation
- Interstate Natural Gas Association of America
- London Benchmarking Group Canada
- National Association of Corrosion Engineers
- National Association of State Fire Marshals
- National Emergency Number Association
- National Petroleum Council
- North Dakota Petroleum Council
- Northeast Gas Association
- NRCan National Non-Destructive Testing Certification Body
- NYSEARCH
- Ontario Energy Association
- Ontario Fire Marshal's Public Fire Safety Council
- Open Compliance & Ethics Group
- Operations Technology Development
- Petroleum Technology Alliance Canada
- Pipeline Operators Safety Partnership
- Pipeline Research Council International
- Program of Energy Research and Development
- Smart Commute Initiative (Toronto)
- Southern Gas Association
- Society of Corporate Compliance & Ethics
- Superior-Douglas Chamber of Commerce
- Texas Association of Business
- Texas Oil & Gas Association
- Texas Pipeline Association
- Texas Taxpayers and Research Association
- The Natural Step Canada
- Three Rivers Manufacturers' Association
- U.S. Oil & Gas Association
- University of Alberta Advisory Committee, Canadian Centre for Corporate Social Responsibility
- Will County Center for Economic Development
- Wisconsin Manufacturers & Commerce
- Wisconsin Taxpayers Alliance

STRATEGY & PRIORITIES

Corporate Vision

Enbridge's vision is to be the leading energy delivery company in North America. In pursuing this vision, we play a critical role in enabling the economic well-being and quality of life of North Americans by providing access to energy.

We transport, distribute and generate energy, and our primary purpose is to deliver the energy North Americans need in the safest, most reliable and most efficient way possible.

Among our peers, Enbridge strives to be a leader, which means not only leadership in value creation for shareholders but also leadership with respect to worker and public safety and environmental protection associated with our energy delivery infrastructure, as well as in customer service, community investment and employee satisfaction.

Driven by our vision, we deliver value for shareholders from a proven and unique value proposition, which combines visible growth, a reliable business model and a dependable and growing income stream.

Corporate Strategy Overview

Our initiatives center around seven areas of strategic priority in four key focus areas. These strategies are reviewed at least annually with direction from Enbridge's Board of Directors.

1. Commitment To Safety And Operational Reliability
2. Execute
 - Focus on project management
 - Preserve financing strength and flexibility
3. Secure the Long-Term Future
 - Strengthen core businesses
 - Develop new platforms for growth and diversification
4. Maintain The Foundation
 - Uphold Enbridge values
 - Maintain the Enbridge's social license to operate
 - Attract, retain and develop highly capable people

Commitment to Safety and Operational Reliability

Safety and operational reliability remains our number one priority and sets the foundation for our strategic plan. Our commitment to safety and operational reliability means achieving and maintaining industry leadership in safety (process, public and personal) and ensuring the reliability and integrity of the systems we operate in order to generate, transport and deliver the energy society counts on and to protect people and the environment.

Under the umbrella of Enbridge's Operational Risk Management Plan (ORM Plan), which we introduced in 2010, we have undertaken extensive maintenance, integrity and inspection programs across our pipeline systems. The ORM Plan has resulted in strong improvements in the area of safety and operational risk management, bolstering incident response capabilities, employee and public safety protocols and improved communications with landowners and first responders.

In addition, an enterprise-wide safety and risk management framework has been implemented to ensure that we identify, prioritize and effectively prevent and mitigate risks across the enterprise. We strive to embed a common risk management framework within our operations and those of our partners.

Supporting these initiatives is a safety culture that strives towards a target of 100 percent safe operations, with a belief that all incidents can be prevented. To achieve the goal of industry leadership, we measure our performance as compared to standard industry performance, transparently report our results and continue to use external assessments to measure our performance.

Execute

Focus on Project Management - Our objective is to safely deliver projects on time and on budget and at the lowest practical cost while maintaining the highest standards for safety, quality, customer satisfaction and environmental and regulatory compliance. With an approximate \$26-billion portfolio of commercially secured growth projects, successful project execution is critical to achieving our long-term growth plan. These projects are predominantly liquids focused, but increasingly include green energy, natural gas, offshore and gas distribution initiatives.

Through our Major Projects business unit, we continue to build upon and enhance the key elements of our rigorous project management processes including: employee and contractor safety; long-term supply chain agreements; quality design, materials and construction; extensive regulatory and public consultation; robust cost, schedule and risk controls; and efficient project transition to operating units.

Focus on Preserving Financing Strength and Flexibility - The maintenance of adequate financing strength and flexibility is crucial to our growth strategy. Our financing strategies are designed to ensure that we have sufficient financial flexibility to meet our capital requirements. To support this objective, we develop financing plans and strategies to manage credit ratings, diversify our funding sources and maintain substantial standby bank credit capacity and access to capital markets in both Canada and the U.S.

As part of our risk management policy, we mitigate the impact of fluctuations in interest rates, foreign exchange and commodity price on earnings. This economic hedging program, together with ongoing management of credit exposures to customers, suppliers and counterparties, supports one of the key tenets of our investor value proposition: a reliable business model.

We also use our sponsored vehicles, primarily through asset drop downs, to cost effectively fund a portion of our capital program. In 2015, we completed the Canadian Restructuring Plan, which transferred the majority of our Canadian Liquids Pipelines business and certain renewable energy assets to the Fund Group. We continually assesses ways to generate value for shareholders, including by reviewing opportunities that may lead to acquisitions, dispositions or other strategic transactions, some of which may be material. Opportunities are screened, analyzed and assessed using strict operating, strategic and financial criteria with the objective of ensuring the effective deployment of capital and the enduring financial strength and stability of the company.

Secure the Longer-term Future

Focus on Strengthening Core Businesses - Within our crude oil transportation business, strategies to strengthen the core business are focused on optimizing asset performance, strengthening stakeholder and customer relationships and providing access to new markets for production from western Canada and the Bakken regions, all while ensuring safe and reliable operations. Our asset optimization efforts focus on maximizing the operational and financial performance of our infrastructure assets within established risk parameters, providing competitive services and value to customers. Our assets are strategically located and well-positioned to capitalize on opportunities.

Our natural gas business is focused on strategies that include leveraging the competitive advantages of its existing assets, expanding its footprint into emerging supply areas and establishing more direct linkage to growing markets.

To extend this position, we are focused on expanding our Canadian Midstream footprint. In addition to our focus on developing our Western Canadian gas business, we also continue to pursue offshore natural gas and crude oil transmission opportunities in the U.S. Gulf Coast region.

Our natural gas distribution business in eastern Canada is the largest in Canada with over two million customers. Enbridge Gas Distribution (EGD) is currently focused on the execution of the Greater Toronto Area (GTA) project, which is a key component of EGD's gas supply strategy and will provide new transmission services that will enable access to mid-continent gas supplies for the utility and its customers.

Focus on New Platforms for Growth and Diversification - The development of new platforms to diversify and sustain long-term growth is an important strategic priority. We are currently focusing our development and diversification efforts toward securing investment in additional renewable energy generation, liquefied natural gas (LNG) development, gas-fired power generation and energy marketing, as well as exploring opportunities to extend our energy delivery and generation services to select energy markets outside North America.

In 2015, we continued to expand our interests in renewable power generation with the acquisitions of the 103-MW New Creek Wind Project (New Creek) in West Virginia and a 24.9 percent interest in the 400-MW Rampion Offshore Wind Project (Rampion Project) in the United Kingdom. Including these acquisitions, we have invested approximately \$5 billion in renewable power generation and transmission since 2002.

Within our existing renewables business, our goal is to take over full operational responsibility of our power generation facilities as operating contracts with key service providers expire and if the associated economics are viable. Our energy marketing business also plans to expand its business through obtaining capacity on energy delivery and storage assets in strategic locations to achieve higher earnings from location, grade and time differentials. We also invest in early-stage energy technologies that complement our core businesses.

Maintain the Foundation

Focus on Upholding Enbridge Values - We adhere to a strong set of core values that govern how we conduct our business and pursue strategic priorities, as articulated in our value statement: "Enbridge employees demonstrate Integrity, Safety and Respect in support of our communities, the environment and each other." Employees are expected to uphold these values in their interactions with each other, customers, suppliers, landowners, community members and all others with whom the company deals, and to ensure that the company's business decisions are consistent with these values. Employees and contractors are required, on an annual basis, to certify their compliance with our Statement on Business Conduct.

Focus on Maintaining the Company's Social License to Operate - Earning and maintaining "social license"—the acceptance by the communities in which we operate or are proposing new projects—is critical to our ability to execute on our growth plans. To earn public acceptance of Enbridge and our projects and activities, we are increasingly focused on building long-term relationships by understanding, accommodating and resolving public concerns related to our projects and operations. We engage with key stakeholders through collaboration and by demonstrating openness and transparency in our communication. We also focus on enhancing the Government Relations function with a goal of advocating company positions on key issues and policies that are critical to its business. We also build awareness of the role energy and Enbridge play in people's lives in order to promote better understanding of our businesses.

To earn the public's trust, and to help protect and reinforce our reputation with our stakeholders, we have embraced sustainable development principles and practices and are integrating them into all aspects of our business, including public reporting and disclosure of our performance on key environmental, social and governance issues according to widely recognized norms.

Focus on Attracting, Retaining and Developing Highly Capable People - Investing in the attraction, retention and development of employees and future leaders is fundamental to executing our corporate strategy and creating sustainability for future success. We focus on enhancing the capability of our people to maximize the potential of the organization and undertake a variety of activities such as offering accelerated leadership development programs, enhancing career opportunities and building change management capabilities throughout the enterprise so that projects and initiatives achieve intended benefits. We also strive to maintain industry competitive compensation and retention programs that provide both short-term and long-term incentives.

RISK MANAGEMENT

Our Risk Management Foundation

We build on our foundation of operating excellence by adhering to a strong set of core values that reflect what is important to us as a company: Integrity, Safety and Respect in support of our communities, the environment and each other. These values guide our decisions, actions and behaviors.

We recognize that if we fail to meet our safety and operational reliability goals, we won't be able to deliver on any of our other strategic priorities. For that reason, safety and operational reliability are our number one priorities, and public safety and environmental incidents are among our top enterprise-wide risks. We also monitor other CSR and sustainability-related risks, including challenges associated with climate change, water, reputation and social licence to operate, changing regulatory frameworks, and relationships with Aboriginal and Native American groups. *For more information, please see the Significant Sustainability Challenges & How We Are Responding section of this report.*

How We Manage Risk

Our Board of Directors oversees all of our risks—both those that relate to CSR and sustainability and those that don't—with the ultimate goal of ensuring that we can achieve our long-term strategic priorities. Board Committees are responsible for overseeing specific risks categories.

The Board's Safety and Reliability (SRC) Committee oversees safety and reliability, which include our risk and safety culture and risk management guidelines, our policies directed at preventing injury and adverse environmental impacts, and our guidelines, policies, procedures and practices regarding significant safety incidents. The Board's Corporate Social Responsibility (CSR) Committee oversees our guidelines, policies, procedures and performance related to CSR, and reviews our reporting in this area. The CSR Committee is also responsible for oversight on CSR matters such as human rights, environmental stewardship, stakeholder engagement, government relations and Aboriginal and Native American relations, communications and community investment. *For more information, please see our Management Information Circular, which is available on Enbridge.com.*

Our Executive Leadership Team (ELT) and our Operations and Integrity (OIC) Committee are responsible for managing risks throughout the enterprise. In particular, the OIC manages our Operational Risk Management (ORM) program, which includes pipeline integrity management, leak detection and control systems, damage avoidance and detection, occupational safety, public safety and environmental protection, and incident response. Risk owners and specialists throughout the company are responsible for managing risks within their respective areas.

At the enterprise level, risk management is guided by our Enterprise Risk Management (ERM) Framework and our Safety Management System Framework, which are supported by Joint Business Unit Councils for Enterprise Risk, Safety, Process Safety, Integrity, and Crisis and Emergency Response.

Through our annual Corporate Risk Assessment (CRA) process we identify and assess all of our corporate-wide risks such that we can prioritize and align our risk management and treatment efforts. Our CRA process is systematic, comprehensive and integrated, and has evolved over the years as Enbridge and our external environment have evolved. The CRA is reviewed by the Audit, Finance and Risk Committee of the Board with respect to our overall enterprise risk management framework and to the specific categories under their oversight, which include financial, commercial, strategic and legal risks. Further, the operational, environmental and safety risk categories are specifically reviewed by the SRC Committee, reputational risk is reviewed by the CSR Committee and human

resources risk is reviewed by the Board's Human Resources & Compensation Committee. The Committees then report their conclusions to the Board.

Where possible—we use quantitative methods to assess our risks and to monitor the effects of our risk treatments. For example, we use leading and lagging metrics to assess the effectiveness of treatments pertaining to safety, the maintenance of the fitness of our systems and leak detection. To assess our financial risk treatment, we use metrics such as earnings-at-risk to give us insights into our market risk exposures and into the effectiveness of our derivative hedging activities. We also conduct correlation analyses on our market price risks, including interest rates, foreign exchange and commodities prices, to ensure that we fully understand the interrelationships between these risks.

Our Risk and Safety Culture

It is fundamentally important for us to have a strong risk and safety culture—which we define as shared attitudes, values, norms, beliefs and practices with respect to risk, risk management and safety—that aligns with our core values. As the following examples illustrate, our “tone from the top” demonstrates this importance.

As part of our performance management system, we include risk management criteria that address not only *that* something was achieved, but *how* it was achieved. We also use scorecards that focus on metrics such as safety, operational reliability and employee development. And, our short- and long-term incentive programs include metrics for total recordable injury frequency (TRIF), safety observations, incident investigations, and health & safety training.

We provide training on risk and safety topics such as hazard management, life-saving rules, incident prevention and emergency preparedness and response.

We empower leaders to act quickly to enhance or modify any infrastructure, systems, or processes that pose safety violations; to champion the creation of best-in-class health and safety programs; to define and coach disciplined safety leadership behaviors, and; to recognize and clearly communicate the impact of health and safety issues on the business, its employees, profitability and reputation.

We are aligning our risk and safety culture with Canada's National Energy Board (NEB) statement on safety culture, which states that a strong safety culture is one in which:

- leaders demonstrate that safety is their overriding value and priority,
- everyone is aware of known hazards while remaining vigilant to new threats,
- every employee feels empowered and recognized for making safe decisions,
- employees feel encouraged to report safety hazards, including instances where they have committed an error and introduced a threat themselves,
- everyone, including the most junior employees, would not hesitate to take action in response to a safety concern without fear of disciplinary action or reprisal,
- people work safely regardless of whether or not someone is watching, and
- the organization is continually learning from its own and others' experiences with the goal of advancing safety.

We also regularly assess our risk and safety cultures through employee surveys and other methods such that we can quickly identify and address strengths and weaknesses.

SIGNIFICANT SUSTAINABILITY CHALLENGES & HOW WE ARE RESPONDING

As a company that transports, distributes and generates energy, we benefit from the tremendous opportunities that come from providing North Americans the energy they need. At the same time, we face a number of sustainability challenges associated with that energy.

Public Safety Incidents

Given that we operate some of our pipeline and distribution systems and related storage assets close to populated areas, we are aware that a major incident could result in serious injury to members of the public and, furthermore, that a major incident involving public safety could substantially impact our social license to operate. As such, we take all precautions to reduce the likelihood and consequence of public safety incidents. *For more information, please see the Maintaining the Fitness of our Systems and Leak Detection, Environment & Land Management, Human Health & Safety, and Emergency Preparedness & Response sections of this report.*

Environmental Incidents

We are also aware that a serious environmental incident could cause long-term damage to the environment; have serious safety impacts on our employees, contractors and the public; erode our reputation and social license to operate; and result in significant clean-up and remediation costs. For these reasons, we continually work on reducing the likelihood and consequence of environmental incidents, and have implemented prevention, detection and mitigation measures through integrated management systems, plans and processes. *For more information, please see the Maintaining the Fitness of our Systems and Leak Detection, Environment & Land Management, Human Health & Safety, and Emergency Preparedness & Response sections of this report.*

Climate Change

Climate change and shifting energy fundamentals pose the following challenges—and opportunities—for us:

[GHG Reduction Regulation](#)

As demonstrated by the international agreement reached in Paris in December 2015 at the 21st Convention of the Parties (COP) to the UN Framework Convention on Climate Change (UNFCCC), governments around the world have agreed on the need to achieve greenhouse gas (GHG) reduction targets by 2030 and 2050 that will limit any increase in average global temperature to less than two degrees Celsius. In Canada and the U.S., a variety of regulatory initiatives are under way at both sub-national and national levels. They include the introduction of emissions limits and reporting requirements; the introduction of carbon pricing and trading systems; the phase-out of coal-fired electricity; the establishment of new energy efficiency and conservation goals; and the increased availability of incentives for investment in technologies that can accelerate emissions reductions and the transition to lower-carbon and renewable energy.

On January 1, 2015, the Quebec government implemented a cap-and-trade system that requires Gazifère, an affiliate of Enbridge's Gas Distribution business segment (GD), to purchase carbon permits on behalf of its customers.

The Ontario government is undertaking a similar policy framework and, throughout 2015, GD representatives met with Ontario members of the Canadian Gas Association and the Ontario Ministry of Environment and Climate Change to discuss proposed new carbon and climate measures.

In addition, both Quebec and Ontario are active participants in the Western Climate Initiative, a non-profit corporation formed to provide administrative and technical services to support the implementation of state and provincial carbon permit trading programs. *For more information, please see the Energy & Climate Change section of this report.*

In November 2015, the Alberta government announced its Climate Leadership Plan, which is a new provincial strategy and action plan on climate change based on the recommendations put forward by a Climate Advisory Panel. Details on implementation are still being developed but will include the phasing out of coal-fired electricity by 2030, introduction of an emissions limit for GHGs from oil sands production, expansion of renewable capacity and regulation designed to achieve methane reduction. *For more information, please see the Energy & Climate Change section of this report.*

Enbridge has publicly supported the new carbon pricing policies being adopted by Alberta, Ontario and Quebec. The governments of Manitoba and Saskatchewan are developing similar new policies to support the expansion of renewables and the reduction of GHGs. In the U.S., the federal government has introduced a Clean Power Plan to accelerate the phase out of coal-fired electricity.

It is difficult at this time to quantify the costs and opportunities that will result for all of our businesses from these and other new regulatory policies related to emissions reduction because the policies are still evolving at the provincial, state and federal levels. In Alberta, the phasing out of coal-fired electricity could impact the cost of electricity for our Liquids Pipelines business segment (LP). As renewables and natural gas expand to replace coal-fired electricity, this could create opportunities for new investment by our Gas Pipelines and Processing and Energy Services business segment (GPP&ES), and by our Green Power, Transmission and Emerging Technology (GPT&ET) group. In the longer term and depending on assumptions regarding the availability and adoption of new technologies for emissions reduction, the application of a limit on emissions from oil sands production in Alberta could impact production levels over time. In the short-term the emissions limit is not expected to influence the need for any of our currently proposed new pipelines or expansions.

Although the availability of renewable and alternative energy is growing—and we are expanding our position in that sector—we expect oil and natural gas to continue to be an importance source of energy for the foreseeable future. We are committed to contributing to the achievement of local, national and global climate goals and believe the oil and gas value chain can be managed and developed in ways that will help ensure the world stays below critical global emissions thresholds. Both renewable and non-renewable energy will be required to power the shift to clean energy during the 20- to 30-year energy transition now underway in North America that will involve re-engineering the electrical grid, addressing energy storage challenges and developing technologies that reduce climate impacts from hydrocarbons.

Both our short-term and long-term business strategies and plans are structured to enable us to meet current demand for oil for transportation needs, and as feedstock for other products required by society, while also responding to new opportunities for renewable energy, electrical transmission and natural gas. We are committed to ongoing development and execution of a business model that will enable us to meet the energy requirements of a lower-carbon world. *For more information, please see the Strategy & Priorities section of this report.*

Severe Weather Events

The most severe weather events that our operations have experienced to date are hurricanes along the Texas Gulf Coast, and the Alberta and Toronto floods in 2013.

However, as our systems are part of a broadly based logistics network that connects producers to consumers, all parties are aligned in their contingency planning to shut-down in advance of severe storms and resume operations and energy supply as a first priority following the storm event, thus limiting impacts. *For more information, please see Maintaining the Fitness of Our Systems and Leak Detection, and the Energy & Climate Change, sections of this report.*

Investor Due Diligence

A growing number of investors are assessing risks associated with how companies are managing climate impacts and the transition to a lower-carbon future. Our new Climate Policy strengthens the alignment between our corporate priorities to grow our existing businesses and develop of new platforms for diversification with our focus on ensuring safe and reliable energy supply and our commitment to managing climate risks while responding to new climate-related opportunities. *For more information, please see the Strategy & Priorities section of this report.*

Technological Developments, Consumer Demand and Emerging Opportunities for Further Emissions Reduction

To mitigate risk and capitalize on emerging technologies, we track technological developments, particularly those associated with improved energy delivery and efficiency, and with renewable and alternative energy generation.

Already, we have made significant investments in wind, solar and geothermal energy generation. We've also invested in a wide range of alternative energy projects, including waste heat recovery, run-of-river power generation and renewable energy storage. GD is also evaluating opportunities to "green the natural gas grid" through renewable natural gas (upgraded biogas) and power-to-gas energy storage. *For more information, please see the Strategy & Priorities, Renewable & Alternative Energy, and R&D and Innovation sections of this report.*

We recognize that consumers are also increasingly demanding improved access to affordable lower-carbon energy and renewable energy. As described in previous sections, while crude oil transportation through pipelines accounts for the bulk of our current revenues, we have strategies in place to ensure our business to aligns with changing energy market fundamentals in both the short and long-term.

As a leader in energy infrastructure systems that deliver oil, natural gas and renewable energy, we believe Enbridge is uniquely positioned to help bridge the transition to a lower-carbon future by advancing energy diversification while also ensuring the safety and reliability of energy supply. Emerging opportunities that we are acting on include:

- *Helping customers of our natural gas utilities manage their emissions and improve energy efficiency:* Our Gas Distribution business has recognized expertise in areas such as demand-side management (DSM), energy efficiency and conservation will provide a good platform for offering fee-for-service options to customers.
- *Growing our renewable energy business:* We are one of the largest investors in renewable energy for electricity in Canada and have a growing presence in renewables in both the US and Europe. New technologies are continuing to drive the cost of wind and solar energy to more competitive levels and new government targets and policies are supporting growth in renewables and electricity. Building on the \$5 billion (CAD) we have invested in renewable energy to the end of 2015, we want to double our position in bringing renewable energy to scale in North America and elsewhere in the next 5 years. We are pursuing new business opportunities arising from increased consumer demand for renewable energy and new interdependencies between renewables, natural gas and electrical transmission. Because renewable energy is at the forefront of the transition to a low carbon future we are building our competitive advantage as a developer and operator of wind and solar projects and continue to selectively invest in renewable technology and innovation.

- *Expanding the use of natural gas to make access to lower-carbon and renewable energy more feasible:* Natural gas can create significant climate benefits while advancing local energy efficiency and sustainability. It is an important replacement fuel for coal in electricity generation, a low carbon source of home heating, a lower emission fuel for heavy-duty vehicles and large transportation fleets, and an important enabler of renewable and community scale energy. We are evolving our natural gas systems to expand the availability of natural gas in North America, which is central to making the transition to a low carbon economy both feasible and affordable across a range of GHG emissions reduction scenarios through to 2030. This expansion will include development and deployment of next generation technologies and services that can support district energy and locally distributed energy systems, and that can improve integrated energy resource planning and management at the local and regional level. It may also include investing in opportunities for renewable natural gas (such as biogas for heating), power-to-gas systems that can help store surplus renewable energy, and combined heat and power systems that can help create a path to lower emissions from home heating and power requirements.

For more information, please see the Strategy & Priorities, Energy & Climate Change and Renewable & Alternative Energy sections of this report.

[Updated Policies and Strategies](#)

Given the above-noted challenges and opportunities related to climate issues, we consulted internal and external stakeholders in 2015 to help us better define our role in the transition to a lower carbon economy. Based on feedback obtained, we updated our corporate Climate Policy and are addressing energy transition and sustainability by embedding it as a core component of our business strategy and how we will grow our business. *For more information, please see the Strategy & Priorities and Energy & Climate Change sections of this report.*

Water

While water is critical to the energy industry of which we are a part—upstream oil production and downstream oil refining, for example, both use a lot of it—because we are primarily a transporter and deliverer of energy, water is not a key input to most of our operations.

However, because our pipelines traverse large distances that include water bodies and watercourses, spills pose significant risks to both surface and ground water, as well as to fisheries and wetlands. Also, because our pipelines cross areas where people live and recreate—and because people care deeply about their ability to access clean water—spills, and even the perception of the possibility of spills, also pose significant risks to our reputation and our ability to obtain regulatory permits and approvals.

Given the significance of these risks we address water protection as a priority in our management systems and processes, including our public safety and environmental incident risk treatments. We also address concerns raised by stakeholders (including customers, local communities, environmental groups, water users, regulators, water management authorities and suppliers) and Aboriginal and Native American individuals and groups. By working with these individuals and groups to understand their concerns, we will incorporate more effective treatment measures into our project management and operations, while also supporting the efficiency of regulatory reviews.

In the meantime, we continue to thoroughly assess and treat our water-related risks. Our assessments take place as part of our regular work, and as part of the processes we must undergo to obtain regulatory approval to construct or maintain our pipelines and related infrastructure.

We engage third-party environmental consultants to conduct the assessments, which involve identifying impacted waterways, geological conditions and groundwater chemistry. The assessments also involve determining the distance that oil could migrate downstream from a spill, how oil could flow overland and what water it could impact, oil

dispersion patterns in open water bodies, the proximity of spills to municipal water supplies and intakes and the potential for other impacts.

Based on the results of the assessments, we work with municipalities to develop contingency plans. Where prudent, we also install additional valves to limit the volume of oil that could escape from a pipeline after an incident. *For more information, please see the Environment & Land Management section of this report.*

Reputation, Regulation and Social License to Operate

We are aware that some individuals and groups oppose our pipeline projects because of concern regarding local and regional environmental risks and impacts in the event of a spill or release. Others oppose them because they do not believe that oil pipelines are consistent with action on climate change.

We have undertaken a number of new initiatives and strategies to address these concerns, both at the operational level as well as at the policy and strategy level. In addition, we collaborate with industry associations, municipal government, Aboriginal and Native American governments and environmental organizations to share information about what we are doing to operate the safe and reliable pipelines that are needed now, as well as what we are doing to advance the transition to a lower-carbon future. *For more information, please see the Strategy & Priorities, Energy & Climate Change, Renewable & Alternative Energy, R&D and Innovation, and Stakeholder Engagement sections of this report.*

We are also aware that opposition and concern about pipelines has made regulators more aware of the need to improve public confidence in regulatory decision and processes involving energy projects, including new and existing pipeline infrastructure. As a result they are changing the way they are regulating pipeline projects and operations.

Below is a summary of our projects and operations that have, or are, the focus of government review processes. In some instances new regulatory requirements have—or are—lengthening approval times for our projects. In all cases we are working with regulators and other parties, including participating Aboriginal and Native American groups, to develop new approaches to improving public confidence in the approval and operation of our projects and operations.

Line 9B Reversal and Line 9 Capacity Expansion Project (Ontario, Quebec)

In addition to being reviewed by Canada's National Energy Board (NEB), Enbridge's Line 9B Reversal and Line 9 Capacity Expansion project was reviewed by the governments of Quebec and Ontario as well as by affected local governments. Before allowing the pipeline to go into service, the NEB ordered that three hydrostatic tests of Line 9 be conducted in order to provide assurance of safe operation. Among numerous other conditions for approval of the project, the NEB also required an ongoing approach to stakeholder engagement.

On September 30, 2015, the NEB confirmed that the project had met all of the necessary criteria and Line 9 returned to service in late 2015.

Northern Gateway Pipeline Project (B.C.)

On December 19, 2013, a Joint Review Panel that consisted of representation from Canada's National Energy Board (NEB) and the Canadian Environmental Assessment Agency issued a report (the JRP Report) and recommended approval of Enbridge's Northern Gateway Pipeline (NGP), subject to 209 conditions, which include engaging with Aboriginal communities to address their concerns about the project. Since that time, NGP's focus has been on meeting the project conditions, particularly conditions related to building Aboriginal involvement into the project. Court cases involving Aboriginal and environmental review issues associated with the project continued in 2015 as did debate over a moratorium on oil tanker traffic along B.C.'s north coast. NGP continued to engage with Aboriginal groups, governments and other stakeholders to address issues and concerns.

Line 5 Crossing, Straits of Mackinac (Michigan)

In 2015 the Michigan State Petroleum Pipeline Task Force Report recommended the establishment of a Pipeline Safety Advisory Board. Comprising regulated stakeholders, government agencies and non-governmental organizations, the Board has a mandate to make recommendations to the State on pipeline safety issues. It is conducting an Independent Alternative Analysis and Risk Analysis for Enbridge's Line 5 Crossing of the Straits of Mackinac. We are a participating member of the Board and are engaging with the Michigan Department of Environmental Quality (MDEQ) regarding the scope and design of these analyses.

Sandpiper Pipeline and Line 3 Replacement Program (Minnesota)

In 2015, the Minnesota Court of Appeals ruled that, where the Minnesota Public Utilities Commission (MPUC) deviated from its usual practice by conducting the certificate of need proceedings prior to the route permit proceedings for the Sandpiper pipeline, an environmental impact statement (EIS) is required to support the certificate of need decision. The need for an environmental review was never in dispute, but the mechanism and timing of the review had been unclear due to the different process followed by the MPUC for the Sandpiper pipeline. Ongoing procedural uncertainty has delayed both our Sandpiper pipeline and Line 3 Replacement program in Minnesota. We continue to engage with stakeholders and regulators to ensure these projects will meet expectations and requirements.

Line 3 Replacement Program (Canada)

In early 2016 the Canadian government expanded on its plans to update and modernize the National Energy Board (NEB) review process and the Canadian Environmental Assessment (CEA) process, beginning with a "transition process" for pipeline projects already before the NEB. As part of the transition process, Environment and Climate Change Canada will be assessing the upstream GHG emissions of pipeline projects. In addition, expanded government consultations with communities, particularly Aboriginal communities, will be undertaken. These new requirements will apply to Enbridge's Line 3 Replacement program in Canada.

2010 Crude Oil Spill (Michigan)

In mid 2015, the Michigan Department of Environmental Quality (MDEQ) and office of the Michigan Attorney General announced that they had reached a settlement with Enbridge regarding our 2010 crude oil spill near Marshall, Michigan. We completed the clean-up in the Kalamazoo River in 2014 and are now focused on long-term monitoring of the river system and control of invasive species. The 2015 settlement underscores our commitment to working with the State of Michigan to ensure the ongoing health of the river system and to working with people who use it to ensure ongoing environmental quality. *For more information, please see the Business Conduct & Ethics section of this report.*

Relationships with Aboriginal and Native American Groups

Changing expectations from both regulators and Aboriginal and Native American communities have led us to review our Aboriginal and Native American Policy. In 2016 we will update our current policy and develop new implementation guidelines to ensure that our engagement with Indigenous peoples reflects our desire to establish long-term relationships and greater collaboration with Aboriginal and Native American groups.

GOVERNMENT RELATIONS & LOBBYING

We support democratic and regulatory processes in the jurisdictions in which we conduct business. We do so in accordance with the letter and spirit of all applicable laws of the countries in which we operate. As such, all of our activities pertaining to government relations and lobbying comply with the country, provincial and state laws governing these activities, as well as with our Statement on Business Conduct.

Governance

The Corporate Social Responsibility (CSR) Committee of our Board of Directors provides oversight on our performance with respect to CSR matters throughout the enterprise. Their oversight includes receiving management's updates on activities involving government relations, including lobbying. When appropriate, management also discusses lobbying activities with the Board as part of its oversight responsibilities. In addition, management provides regular updates on lobbying activities to the President of the applicable business segment or to our President & CEO. *For more information, please see our Management Information Circular, which is available on Enbridge.com.*

Policy Regarding Political Contributions and Personal Political Participation

Our Statement on Business Conduct applies to Enbridge Inc., each of its subsidiaries and controlled entities, and their respective directors, officers, employees, consultants and contractors in all countries in which we conduct business. The Statement on Business Conduct governs all of our political contributions and provides that "no funds or assets of Enbridge shall be contributed to any political party or organization, or any candidate for public office, except where such contribution is permitted by applicable law and authorized by senior management or the Board of Directors." In addition, it provides that no employee shall, directly or indirectly, exert influence on another employee to support any political cause, party or candidate.

Corporate Political Contributions

In 2015, we contributed approximately \$98,000 to provincial political parties in Canada. We did not contribute to federal political parties or politicians in Canada. In Canada, the Federal Accountability Act prohibits corporate political donations at the federal level. Laws governing corporate political donations to provincial entities vary by province, and we strictly adhere to them. In 2015, we did not make any contribution to political parties, politicians or related institutions in the U.S.

Lobbying

We participate in the political process to help inform the development of public policies or regulatory processes important to our specific projects and business objectives. Our lobbying activities are conducted directly by our executives, management or employees. We also retain selected external consultants for advice and logistical support. All of our employees and external consultants engaged in government relations are registered as lobbyists where applicable and as required by laws in Canada and the U.S.

As required by law, we file lobbying reports with the Canadian government, the U.S. Congress, and state, provincial and municipal agencies on a regular basis, disclosing information about lobbying activities, including the issues lobbied and agencies contacted.

Trade Associations

Our primary purpose in joining trade and industry associations is not political. We benefit from, and contribute to, the general business, technical and industry standard-setting expertise that these associations provide. Safety and operational reliability remain our number one priority, and therefore we invest significant time and efforts around safety- and reliability-related issues. We are also committed to supporting the development of responsible public policy in the pipeline industry, and we work with the various trade and industry associations we belong to on a variety of public policy issues that may impact our business. In doing so, we express our own corporate objectives when policy priorities are established and we do not agree with all positions taken by these associations.

In 2015, we contributed \$50,000 or more in membership dues to the following organizations:

- American Gas Association,
- American Petroleum Institute,
- Association of Oil Pipe Lines,
- Canadian Association of Petroleum Producers,
- Canadian Energy Pipeline Association,
- Canadian Gas Association,
- Gas Processors Association,
- Interstate Natural Gas Association of America,
- Ontario Energy Association, and
- Pipeline Research Council International.

Each year, we consider our membership in these associations as part of our annual strategic planning and budgeting process. *For more information about organizations in which we maintain memberships or to which we are affiliated, please see the Our Company section of this report.*

OUR 2015 PERFORMANCE

MAINTAINING THE FITNESS OF OUR SYSTEMS AND LEAK DETECTION (INCLUDING SPILLS, LEAKS AND RELEASES)

OVERVIEW

We continually strive to make our operations safer because we believe that every incident can be prevented. We invest significantly in the fitness of our systems and in leak detection, and continually inspect our pipelines and facilities for safety and reliability.

MANAGEMENT APPROACH

Maintaining the Fitness of our Systems

We undertake the following measures to ensure the long-term fitness of our systems:

Design and Construction

We build safety and reliability into our infrastructure long before we begin to build and operate any project.

We carefully select pipeline routes and line locations, and maintain world-class standards for engineering and design. We incorporate special design considerations for areas such as road, river and creek crossings and high consequence areas where the public may be affected. We adopt the same rigorous approach with our other facilities, such as pump stations, terminals and gas processing plants.

We use precisely manufactured pipe and, during construction, inspect each weld using x-ray or ultrasound technology. As we build our projects, we identify, mitigate and proactively manage potential effects on the environment, while paying close attention to environmentally sensitive areas and wildlife. *For more information, please see the Environment & Land Management section of this report.*

Monitoring and Prevention

Once our pipelines are running, we continually monitor them for any signs of trouble and operate them in a way that protects their reliability. This work involves recognizing conditions that have been known to cause failures in the past and carefully analyzing failures from our peers, and then working to minimize the risks. We do this through a comprehensive set of programs:

In-line Inspections – We use specialized in-line inspection tools that travel inside our pipelines to collect data and evaluate each millimeter of our pipelines. These tools can measure the size, frequency and location of even small changes in our pipes.

Preventive Maintenance (Integrity) Digs – Sometimes our regular monitoring and in-line inspection program alerts us to pipeline features that require us to conduct preventive maintenance—or, integrity—digs. For each integrity dig, we excavate a section of buried pipe so that we can examine it and make necessary repairs. If we find a defect, we repair it, and then recoat and re-bury the pipe. Even if we don't find a defect, we use the data we gain from our integrity digs to add to our overall knowledge about our pipelines' condition, and to compare what we see firsthand with the data we gather using our in-line inspection tools.

Hydrostatic Pressure Testing – Hydrostatic testing involves filling a segment of pipeline with potable water from an approved municipal water source and carefully raising the operating pressure on the segment while continuously monitoring the pipe and observing its performance. We may perform these tests on specific sections of pipe. If the tests result in water leaks, we immediately make any necessary repairs.

Pressure Cycling – We operate our liquid pipelines in a way that protects the quality we build into them at the start. For example, we minimize pressure cycling (the fluctuations that occur during the course of operations as we start and stop pumps and move crude oil products with varying densities and viscosities) on our crude oil pipelines to reduce the stresses that can lead to wear on our pipeline systems.

Managing Cracks – We are at the forefront of technological developments and research related to cracking, and have rigorous programs in place for monitoring and managing it. A key activity in this area is our use of high-resolution ultrasonic in-line inspection technologies on our crude oil pipelines.

Combating Corrosion – We prevent corrosion of the steel in our pipelines and facilities using several methods, including anti-corrosion coatings, cathodic protection (where we apply low electrical currents to the pipeline to protect the steel against corrosion), chemicals that prevent internal corrosion, regular monitoring and inspections, and interior cleaning of pipes using in-line tools.

Maintaining Facility Integrity – We operate and maintain all of our facilities, including our stations and terminals, in a safe, responsible manner. We do this by adhering to standards and specifications, and abiding by commissioning, operating and maintenance procedures, that we regularly review and update to ensure that they incorporate the latest legal requirements and learnings from incidents and safety reviews. We also regularly inspect our tankage, equipment and piping.

Preventing Third-Party and Mechanical Damage – Third-party damage is one of the leading causes of pipeline leaks. Through our Public Awareness Programs, we communicate regularly with our neighbors and customers about our systems, projects and operations to ensure that they know how to stay safe and avoid accidentally damaging our facilities, pipelines and distribution systems. We mark all of our pipelines with signage showing our toll-free number. We also support and promote the Call/Click Before You Dig programs in Canada and the U.S. In Canada, community members can call 8-1-1, and in the U.S., they can visit clickbeforeyoudig.com before excavating so that a locator can visit their location and mark underground utilities. *For more information, please see the Emergency Preparedness & Response section of this report.*

Our Gas Distribution business segment (GD) also has a natural gas sewer safety inspection program in place to mitigate the risk of an excavator damaging a natural gas line that may have inadvertently intersected with a sewer line outside a home or business.

Replacing and Repairing Pipe – Although we build, maintain and manage all of our pipelines to ensure that they have long operating lifespans, at times, through the data we gather from our inspections and integrity digs, we may determine that a pipeline or a pipeline segment should be replaced. We base our decision to replace or repair a pipeline or pipeline segment on ease and safety of construction, landowner concerns, economic evaluations and operational expectations, all with the requirement that we effectively maintain fitness, reliability and safety.

Leak Detection Programs

Pipeline fitness, safety and reliability also involve taking a comprehensive approach to leak detection. We devote resources—both the people and automated systems—on a continuous, 24/7 basis toward ensuring that we control and mitigate any potential problem, should it arise. We monitor our pipelines for possible leaks using a number of methods, each with a different focus and each using different technology, resources and timing. Together these methods provide overlapping and layered leak detection capabilities.

Control Room Monitoring– Our Liquids Pipelines business segment (LP) manages all of its operations from a remote system control center. In addition to keeping in close contact with local operators via telephone and computer, LP controllers use a supervisory control and data acquisition (SCADA) computer system to monitor what is occurring within our pipeline and terminal systems. Using the SCADA system, computers in the control room and at remote sites continually relay information back and forth, enabling our controllers to constantly monitor pressures, flow rates and other conditions on our pipelines and terminal tankage, and to respond quickly when they see abnormal or emergency conditions.

LP also employs a computational pipeline monitoring (CPM) system that collects data from strategically located flow meters and pressure and temperature sensors along our pipelines, and calculates the amount of inventory in the pipeline. If the inventory amount is less than expected, the system triggers an alarm and our controllers immediately investigate.

Similarly, GD and our Gas Pipelines and Processing business segment (GPP&ES) closely monitor their pipelines from their own control centers, in some cases using SCADA systems.

Patrolling our Pipelines – We regularly fly along all of our crude oil pipelines, watching for potential issues including excavation or activity near our pipelines that might pose a risk to safety. Our ground-based surveys, including foot and vehicle patrols, incorporate GPS and advanced imaging technology that enables us to check the depth and position of our pipelines and to detect ground movement.

Leak Surveys – GD completes regular leak surveys along gas mains and service lines, and GPP&ES carries out regular leak surveys along gas pipelines to detect and report natural gas leaks for repair. GD and GPP&ES complete their leak surveys under a variety of programs that are designed to reduce the risk of a potential leak becoming hazardous. To conduct the surveys, GD and GPP&ES technicians carry out foot patrols or drive vehicles that are equipped with sensitive leak detection equipment. During the surveys, they identify any abnormal operating conditions, including signage and code compliance issues. They immediately repair hazardous leaks, and schedule prompt repairs for non-hazardous leaks.

Natural Gas Odorization – In its natural state, natural gas is odorless. As a result, GD adds odorant to gas entering its distribution systems.

GD also educates its customers on the smell of natural gas and what to do if they detect its smell through public education, including scratch and sniff bill inserts. In this way, customers and the public assist GD when natural gas may be escaping its piping systems. GD responds to natural gas odor calls as emergency calls and engages first responders.

GPP&ES works with landowners and others who have access to its rights-of-way to educate them about natural gas facilities and enable them to report potential concerns.

STRATEGIC PRIORITIES

- **Continually improve our spill performance such that we achieve 100 percent safe operations and zero incidents.**
- **Invest in programs and technologies to maintain the fitness of our systems and to detect leaks.**
- **Improve the management systems that help us maintain the fitness of our systems and leak detection.**
- **Continue our pipeline inspection and integrity dig programs.**
- **Improve operational reliability.**
- **Improve process safety management.**
- **Improve leak detection and monitoring.**
- **Be an industry leader in supporting innovation, research and development.**

2015 PERFORMANCE

KEY FACTS

In 2015, we **spent more than \$925.5 million*** on programs that help us maintain the fitness of our systems and detect leaks across our operations in Canada and the U.S. Over the last four years, our investment has totaled more than \$4.9 billion*.

In 2015, we **completed 194 pipeline inspections**—including hydrostatic, ultrasonic and pressure test inspections—on our crude oil and natural gas pipelines and distribution systems. This work included in-line, hydrostatic, ultrasonic and pressure test inspections. Over the past four years, we have carried out more than 890 inspections on our systems.

Thirty-eight of the 45 crude oil spills that our Liquids Pipelines Business Segment (LP) experienced in 2015 took place on Enbridge facilities, where they were quickly cleaned up and had little or no environmental impact. Of the seven spills that took place offsite of Enbridge facilities, two resulted from valve malfunctions one resulted from excavator damage. **The remaining four offsite spills resulted from pipeline incidents that LP detected through its regular integrity digs and aerial patrols.**

We have more than **500 professionals** dedicated to maintaining the long-term fitness of our systems.

*Includes Canadian and U.S. dollar amounts

Our Spill Performance

The following is an overview of our LP, GPP&ES and GD spill performance.

Liquids Pipelines

In 2015, LP delivered more than 2.8 billion barrels of crude oil from where it is produced to refineries in Canada and the U.S. During this period, LP reported 45 commodity (crude oil and natural gas liquids) spills on its systems, totaling 279 barrels. Of this total, one incident was significant, meaning that it was a reportable commodity spill that was greater than 100 barrels (15.9 cubic meters) or entailed clean-up costs of \$1 million or more.

In 38 of the 45 spills, LP contained 264 barrels of the total 279 barrels of spilled product within its facilities and cleaned it up with little or no environmental impact.

In seven of the 45 incidents, LP spilled 15 barrels of the total 279 barrels of spilled product onto its rights-of-way or outside of its properties. Of these seven off-site incidents, three of them resulted from failures that were not related to the pipeline itself:

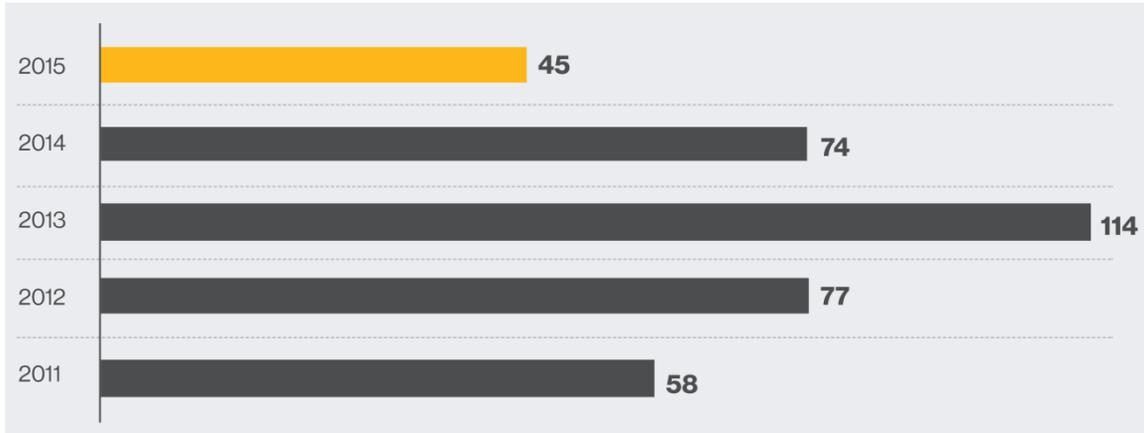
- one resulted from a leaking valve on deactivated crossover piping, and was discovered during an integrity dig,
- one resulted from oil weeping from a valve (no soil was contaminated due to the weeping), and
- one resulted from an excavator damaging a valve.

All of the remaining four pipeline incidents were detected through regular aerial patrols or integrity digs.

In all cases, LP reported the spills to regulators, responded rapidly and safely cleaned up the impacted areas.

The total number reported indicates the number of spills that LP was required to report to regulators in all jurisdictions, and is based on reporting criteria that the Transportation Safety Board of Canada revised in 2014.

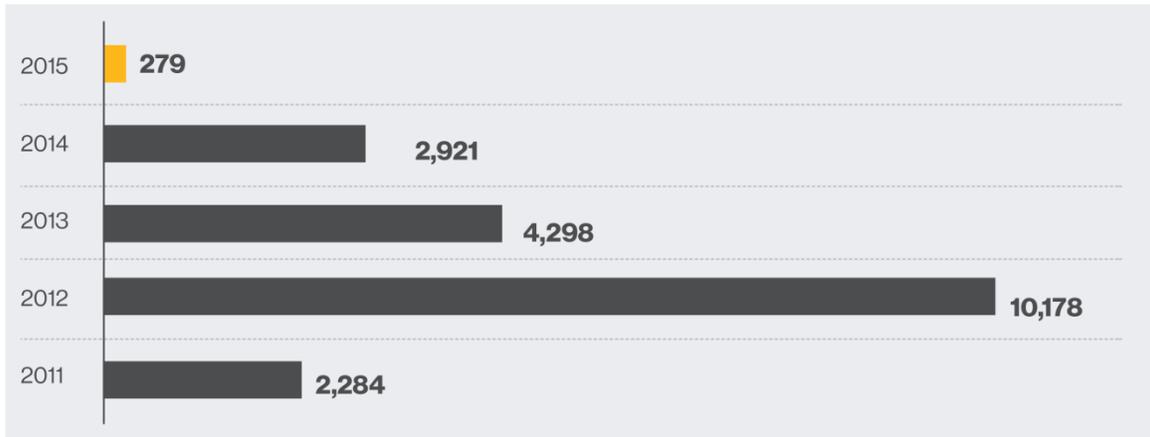
Liquids Pipelines
Number of Reportable Commodity Spills
(2011-2015)



Liquids Pipelines

Volume from Reportable Commodity Spills (Barrels)

(2011-2015)



Liquids Pipelines

Volume of Total Reportable Spills Compared with Total Delivery Volume

From 2006 to 2015, LP delivered 17.2 billion barrels of crude oil and liquids with a safety record of 99.9995 percent. Most of LP's spills were less than a barrel and occurred inside pump stations (on-site) where any spilled oil was readily contained and recovered without entering the natural environment.

Prior to 2012, some of these spills were of non-commodity products (such as brine or hydraulic fluid) that were not the result of loss of containment of the pipeline commodities being transported.

Year	Total Number of Spills (On-site / Off-site) ^{1,2}	Total Spills Volume (barrels) (On-site / Off-site) ^{1,2}	Total Annual Delivery Volume ^{2,3} (barrels)	Percentage of Annual Delivery Volume Safely Delivered (%)	Percentage of Annual Delivery Volume Safely Delivered (%) excluding On-site ¹ Spill Volumes
2006	62 (54 / 8)	5,434 (3,177 / 2,258)	1,198,602,588	99.9995	99.9998
2007	59 (52 / 7)	13,756 (902 / 12,854)	1,199,657,322	99.9989	99.9999
2008	80 (72 / 8)	2,681 (2,587 / 94)	1,256,268,675	99.9998	99.9998
2009	89 (83 / 6)	8,353 (6,524 / 1,829)	1,333,947,614	99.9994	99.9995
2010	80 (61 / 19)	34,122 (2,710 / 31,412)	1,487,709,454	99.9977	99.9978
2011	58 (50 / 8)	2,284 (637 / 1,646)	1,641,262,240	99.9999	99.9999
2012 ⁴	77 (65 / 12)	10,178 (6,939 / 3,239)	1,800,052,959	99.9994	99.9996
2013	114 (99 / 15)	4,298 (2,656 / 1,642)	2,000,735,551	99.9998	99.9999
2014	74 ⁵ (71 / 3)	2,921 (2,807 / 114)	2,405,421,468	99.9999	99.9999
2015	45 (38 / 7)	279 (264 / 15)	2,861,591,093	99.99999	99.999999

TOTAL	738 (645 / 93)	84,306 (29,204 / 55,102)	17,185,248,965	99.9995 (average over 10 years)	99.9997 (average over 10 years)
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- ¹ “On-site” refers to spills that occurred at our facilities. In some cases, however, spills that we classify as on-site may result in product leaking off-site. Regardless, most on-site spills are completely contained within our facilities and are quickly cleaned up with minimal or no environmental impact. “Off-site” refers to spills that occurred on our rights-of-way or outside our property.
- ² Enbridge entities included: Enbridge Canadian Mainline System (including Line 9); U.S. Mainline Lakehead System, Toledo Pipeline, Enbridge Pipelines (Ozark) LLC (including the Cushing Central Pipeline, Cushing Merchant Tankage, Cushing North Pipeline, Cushing South Pipeline, Eldorado Pipeline and West Tulsa Pipeline); Enbridge Pipelines (Athabasca) Inc. (including the Athabasca Tank Farm, Athabasca Pipeline, the Mackay River Pipeline, Waupisoo Pipeline, Woodland Pipeline, Wood Buffalo Pipeline and Norealis Pipeline); Hardisty Contract Terminal; Enbridge Pipelines Inc. (Midstream); North Dakota Pipeline Company; Enbridge Pipelines (Bakken) LP; Enbridge Pipelines (Norman Wells) Inc.; Enbridge Spearhead (CCPS Transportation LLC); Enbridge Southern Lights; Hartsdale Pipeline; Hardisty Cavern, Flanagan South Pipeline, Enbridge Pipelines Saskatchewan Inc., and North Dakota Pipeline Company and Eddystone Rail (facility, only fills rail cars). We do not track volumes for Line 8 we contract out its operations to Imperial Oil Limited. We calculate Line 8 volumes based on monthly invoicing to Imperial Oil for 14,800 cubic meters.
- ³ Volume reported is gross delivery volume.
- ⁴ In our CSR reports prior to 2012 we included non-commodity (e.g., brine, hydraulic fluid) spills in our LP spills statistics. For 2012 and in all future CSR and sustainability reports, we are reporting only spills of commodities (i.e., hydrocarbon products such as crude oil transported through an Enbridge pipeline) in our LP spills statistics. We have not adjusted previous years’ statistics to reflect this change.
- ⁵ Indicates the number of spills that LP was required to report to regulators in all jurisdictions in 2014. If the [Transportation Safety Board of Canada](#) had not changed its reporting requirements on July 1, 2014, we would have reported 100 spills with a volume of 2,943 barrels.

Gas Pipelines, Processing & Energy Services

GPP&ES transports more than 4.2 billion cubic feet of natural gas every day—totaling more than 1.5 trillion cubic feet a year—as well as natural gas liquids such as propane and butane.

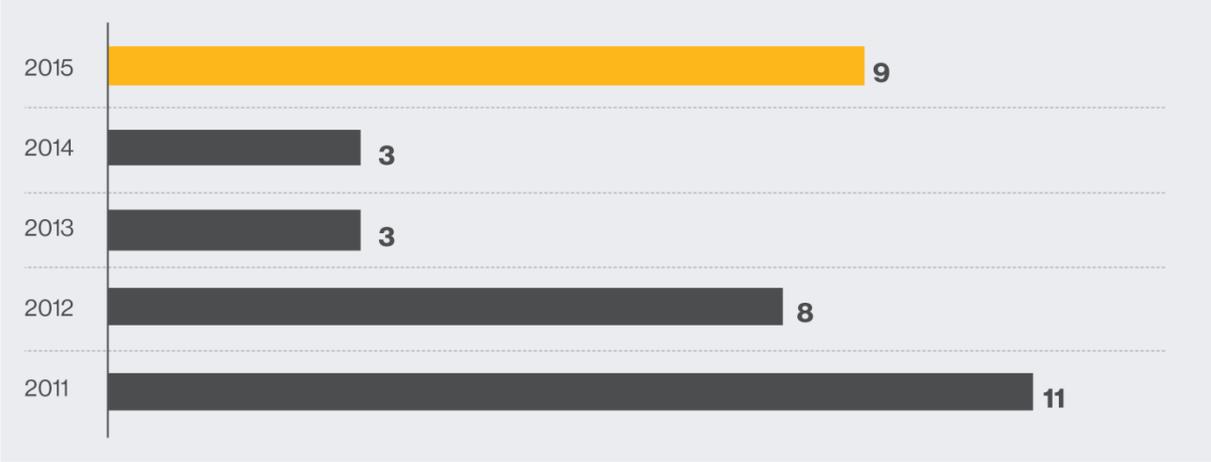
In 2015, GPP&ES had nine federally reportable liquids spills totaling approximately 14 barrels, and one federally reportable gas release totaling about 1.11 million standard cubic feet. Of the total volume of liquids spilled, GPP&ES spilled 13 barrels at six of its facilities or rights-of-way, and less than one barrel off site of our property. It reported no significant (Tier I) spills, which GPP&ES defines as spills that meet the following criteria:

- 50 cubic meters (90,000 lb. or 310 barrels) of oil or more,
- 1,000 lb. of H₂S or more,
- 50,000 lb. of natural gas or more, or
- 50,000 lb. of natural gas liquids or more.

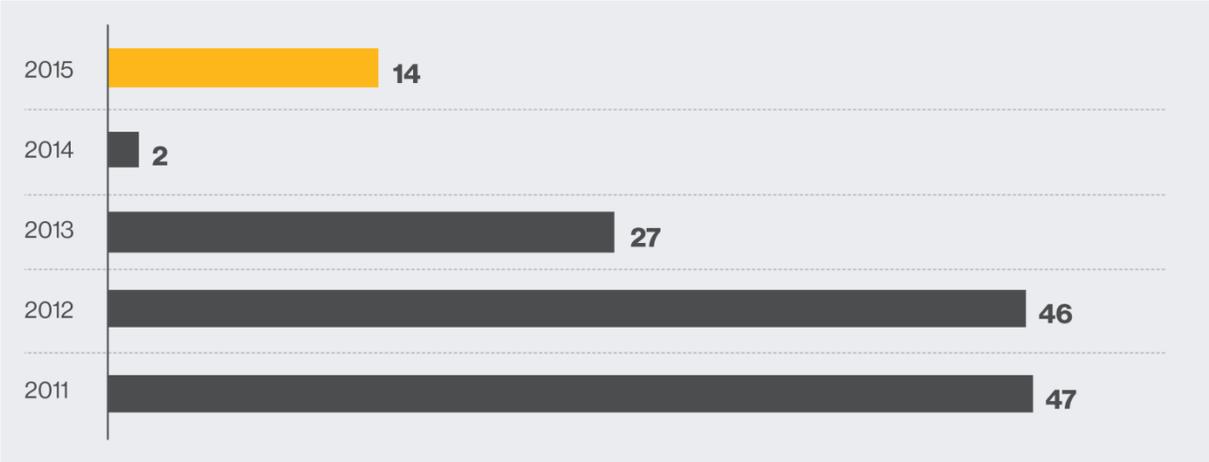
The liquids spills and natural gas releases that GPP&ES reports include commodity spills, leaks and releases that are large or significant enough to require us to formally notify a federal regulatory authority.

While, beginning in 2013, LP stopped reporting spills, leaks and releases of non-commodities (e.g., brine, hydraulic fluid, drilling fluid, lube oil), in Enbridge’s CSR and sustainability reports, GPP&ES continues to report on spills and releases of these commodities.

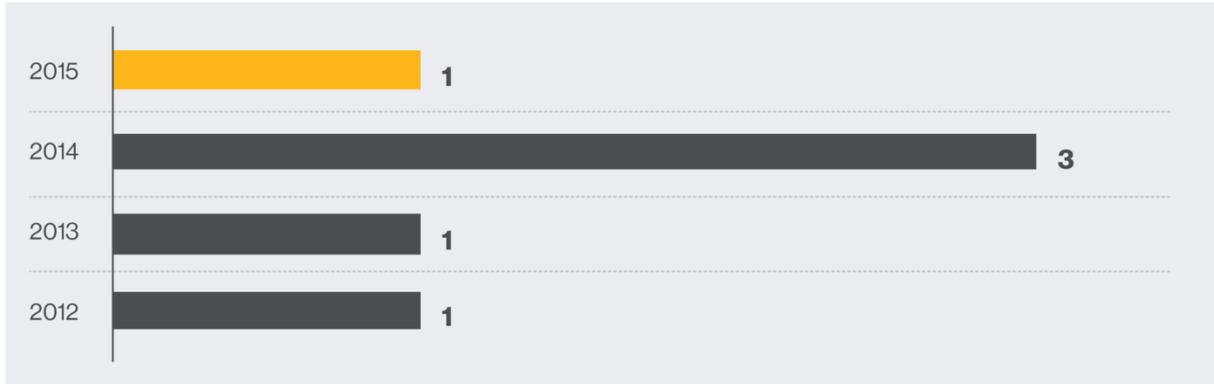
Gas Pipelines, Processing & Energy Services Number of Reportable Liquids Spills (2011-2015)



Gas Pipelines, Processing & Energy Services
Volume of Reportable Liquids Spills (2011-2015)
(Barrels)



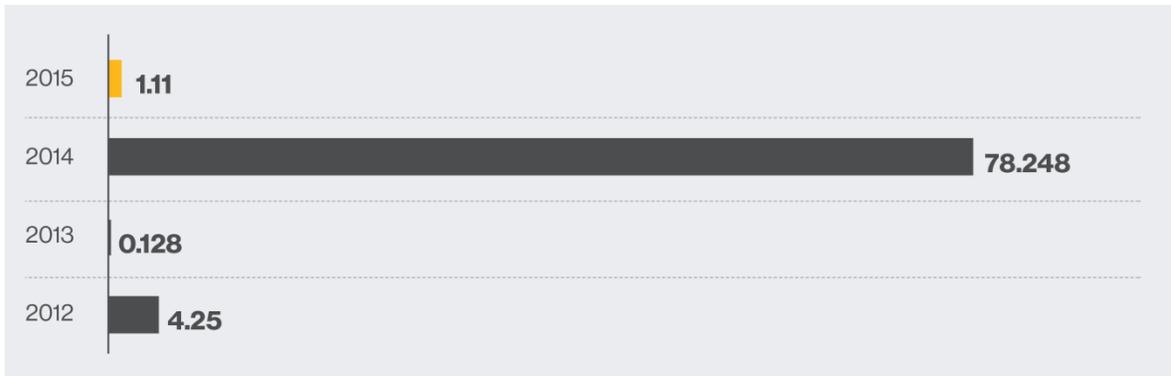
Gas Pipelines, Processing & Energy Services Number of Reportable Gas Releases (2012-2015)



Gas Pipelines, Processing & Energy Services

Volume from Reportable Gas Releases (2012-2015)

Million Standard Cubic Feet (MMSCF)



Gas Distribution

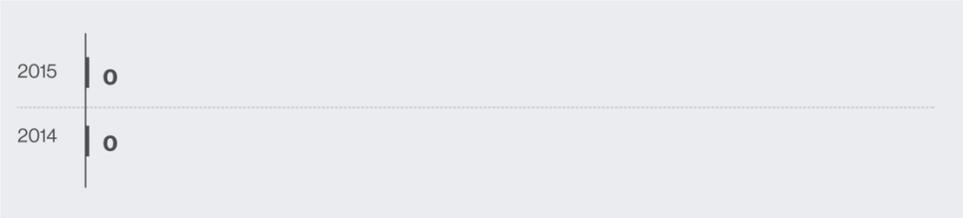
GD provides reliable natural gas service to more than two million customers in Ontario, Quebec, New Brunswick and New York State. In 2015, GD delivered more than 422.3 billion cubic feet of natural gas to its customers. During that time, it reported the following releases, none of which were significant. GD defines significant releases as those that management deems to be major environmental events, or that cause: environmental damage to at least one hectare (2.5 acres) of land; death or damage to multiple fish, birds or wildlife; permanent or widespread damage to wildlife habitat; and that result in remediation costs that exceed \$25 million.

Number of Natural Gas Releases Caused by First- or Second-Party Damages through Tier 1 Incidents – In 2015, GD reported no natural gas releases that were caused by first- or second-party damages to its pipelines or facilities. First-party damages are mechanical damages that are caused by GD's employees, while second-party damages are mechanical damages that are caused by its contractors. GD defines first- and second-party damages as damages that result in:

- unplanned and uncontrolled releases of more than 150,000 cubic meters of natural gas,
- unplanned and uncontrolled releases of odorant that directly result in an incident outcome,
- overpressure exceeding 20 percent maximum operating pressure, or
- releases of carbon monoxide that directly result in an incident outcome.

Gas Distribution

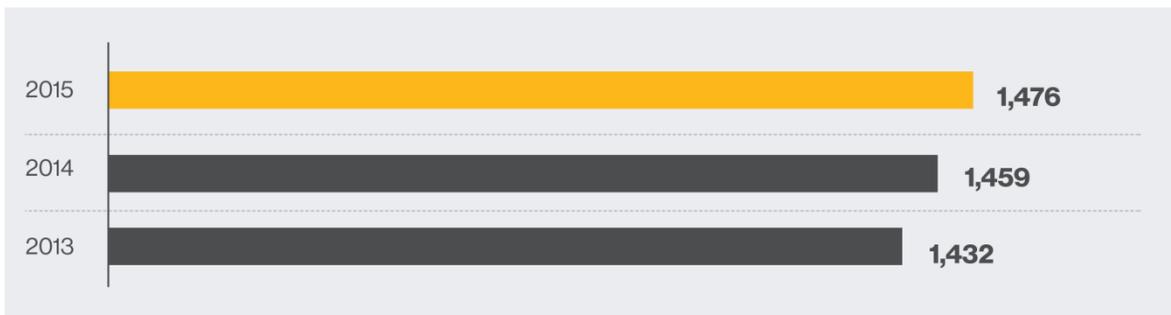
Number of Natural Gas Releases Caused by First- and Second-Party Damages through High Consequence or Process Safety-Related Incidents (2014 - 2015)



Number of Natural Gas Releases Caused by Third-Party Damages – GD reported 1,476 natural gas releases caused by third-party damages, which are incidents of mechanical damage to its pipelines caused by others, often landowners, municipal workers or excavators working for others.

Gas Distribution

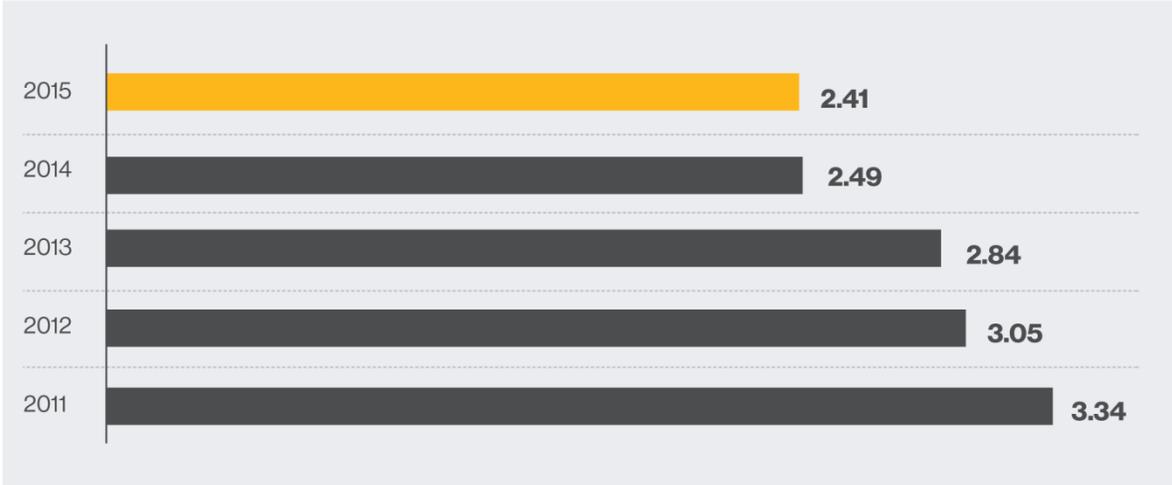
Number of Natural Gas Releases Caused by Third-Party Damages (2013-2015)



GD's largest operational threat is third-party damage to its natural gas pipeline infrastructure. Preventing damage improves worker and public safety, as well as the fitness of GD's gas distribution assets.

The number of damages that occur on natural gas pipeline infrastructure strongly correlates to the amount of construction activity being undertaken in a particular area. As such, one of GD's key damage prevention measures is to provide the location of related underground infrastructure to excavators before they dig. By providing this information, GD has reduced both its normalized number of damages per thousand locate requests and its absolute number of damages. In 2015, it had 2.41 damages per 1,000 third-party locate requests.

Gas Distribution
Damages per 1,000 Third-Party
Locate Requests (2011-2015)



Number of Significant Natural Gas Releases Caused by Planned Venting – GD reported four significant natural gas releases that were the result of its purposeful venting of natural gas (planned venting). Although GD endeavors to minimize its release of natural gas and other GHGs, at times, it must conduct planned venting such that it can safely perform maintenance work of its storage facilities and pipelines.

Gas Distribution

Number of Significant Natural Gas Releases Caused by Planned Venting (2013-2015)



GD is not able to reliably track the volume of any of its natural gas releases. As such, it reports only on the number of releases it experienced.

GD does estimate the volume of its GHG emissions and reports the volumes elsewhere in this report. *For more information, please see the Environment & Climate Change section of this report.*

How LP's Spill Performance (Frequency and Volume) Compares with the Rest of Industry

Canada – While the Transportation Safety Board of Canada (TSB) and the National Energy Board (NEB) both publish data on pipeline incidents, neither publishes the total length of active liquid pipelines. Because we would require the total length of active liquid pipelines to normalize the data, we are unable to calculate comparable industry averages at this time.

U.S. – The following graphs compare LP's spill performance (frequency and volume) with that of the rest of the industry in the U.S. using incident data from the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) as of November 30, 2015, and PHMSA system length and barrel-miles data for hazardous liquids pipelines for 2009 to 2014.

The graphs apply to hazardous liquids pipelines and include all products under that definition:

- crude oil,
- refined and/or petroleum products (non-HVL; liquid at atmospheric conditions),
- highly volatile liquid (HVL; vapor at atmospheric conditions),
- fuel-grade ethanol (dedicated system) *, and
- CO₂**.

* We do not have dedicated fuel grade ethanol pipelines.

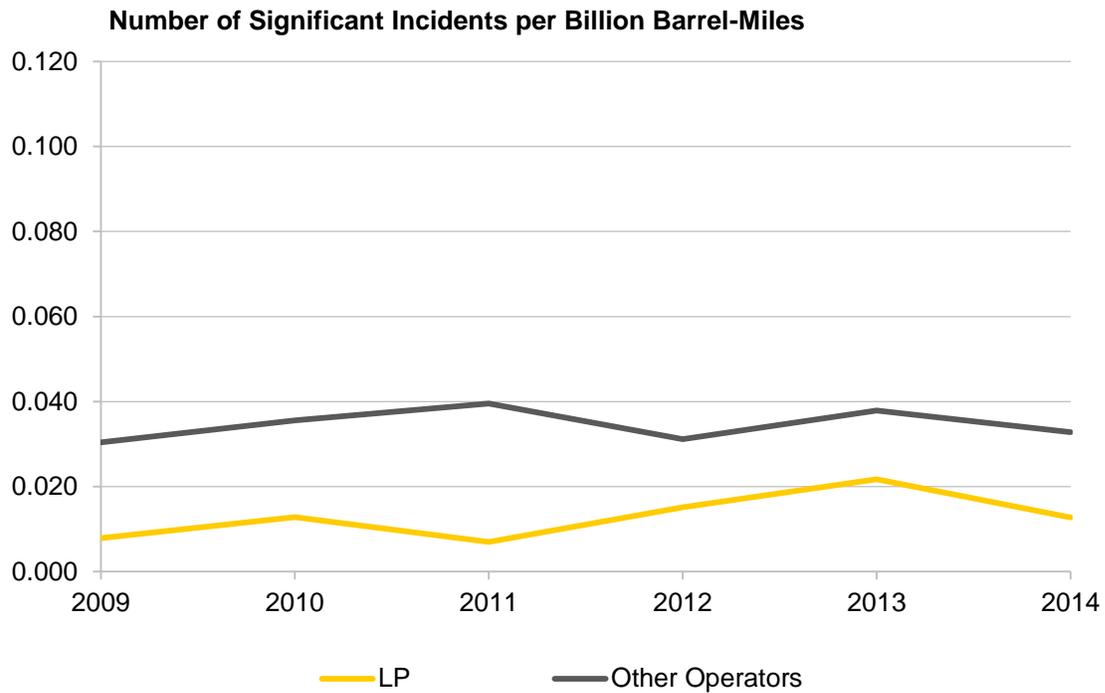
** We do not operate CO₂ pipelines. Mileage and barrel-miles for CO₂ pipelines are not included.

For the purposes of the comparison, significant incidents are defined as incidents where any of the following criteria were met:

- \$50,000 or more in total costs, measured in 1984 dollars,
- HVL releases of five barrels or more,
- non-HVL liquid releases of 50 barrels or more, or
- unintentional fire or explosion.

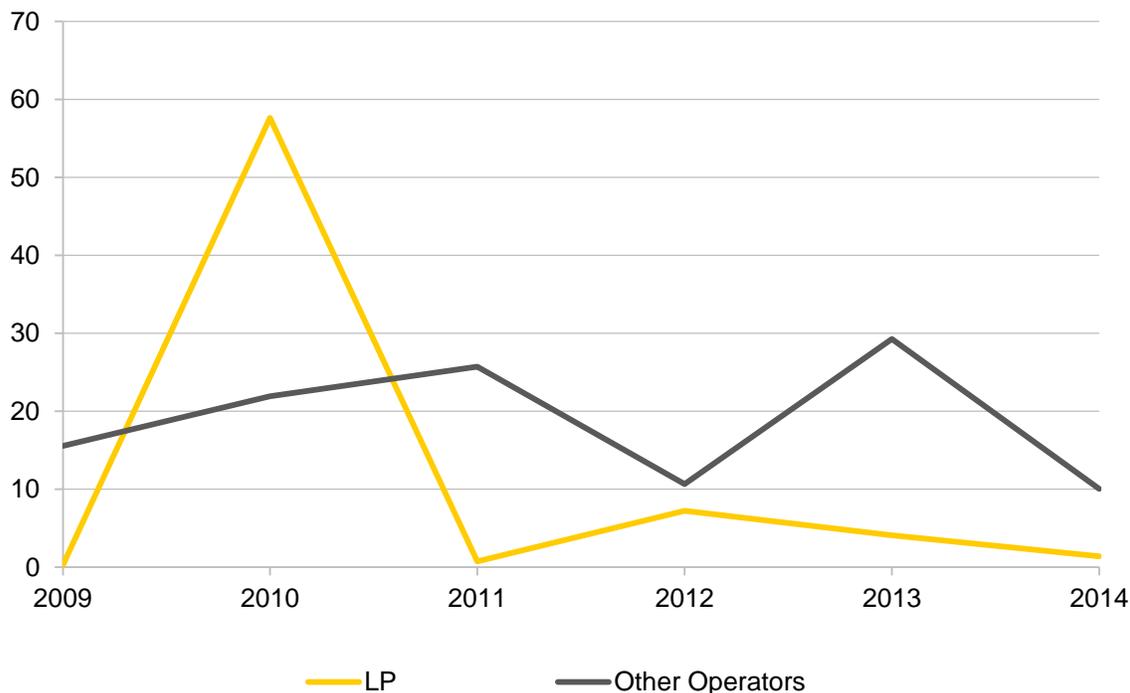
Significant incidents are reportable incidents; however, not all reportable incidents are significant. Overall, significant incidents account for about 99 percent of the total release volume.

The graphs apply only to incidents that took place on LP's onshore hazardous liquids pipeline systems.



According to data from the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), between 2009 and 2014, LP operated on average 4.2 percent of the pipelines in the U.S. From 2009 to 2014, LP experienced 0.013 spills per billion barrel-miles, compared with an average of 0.034 spills per billion barrel-miles for the rest of the U.S. industry, meaning that LP's spill frequency was about 62 percent better than that of the rest of the U.S. industry.

Volume (Barrels) of Significant Incident Releases per Billion Barrel-Miles



From 2009 to 2014, including the volume it spilled during our 2010 Marshall incident, LP spilled 11.3 barrels per billion barrel-miles in the U.S., compared with 18.6 barrels per billion barrel-miles for the rest of the industry, meaning that LP's spill volume was about 39 percent better than that of the rest of the industry.

Significant Spills, Leaks and Releases in 2015

LP experienced one significant spill in 2015, and GPP&ES and GD did not experience any significant spills, leaks or releases. LP defines significant spills as any reportable commodity spill or leak that is greater than 100 barrels (15.9 cubic meters) or that has entailed clean-up costs of \$1 million or more. One barrel of oil is equal to approximately 159 liters or 42 U.S. gallons.

Cromer, Manitoba - On October 15, 2015, approximately 188 barrels (30 cubic meters) of crude oil leaked from piping at our LP terminal near Cromer, Manitoba, while we were removing a blind flange in preparation for a tie-in on a tank line. We contained all of the oil within the tank lot berms. We notified the National Energy Board and took prompt action. We recovered all free oil and impacted soil and disposed of it in accordance with our waste management plan. We conducted an internal root-cause investigation and determined the direct cause of the release to be an isolation valve that had been partially open. As a result of the investigation, we have provided additional training to workers for equipment lockout procedures and are applying the lessons we learned to prevent similar events from occurring in the future.

Investments in Maintaining the Fitness of our Systems and in Leak Detection

Since our major 2010 spill in Marshall, Michigan, LP has significantly increased its investments in programs and technologies that help it maintain the fitness of its systems and leak detection.

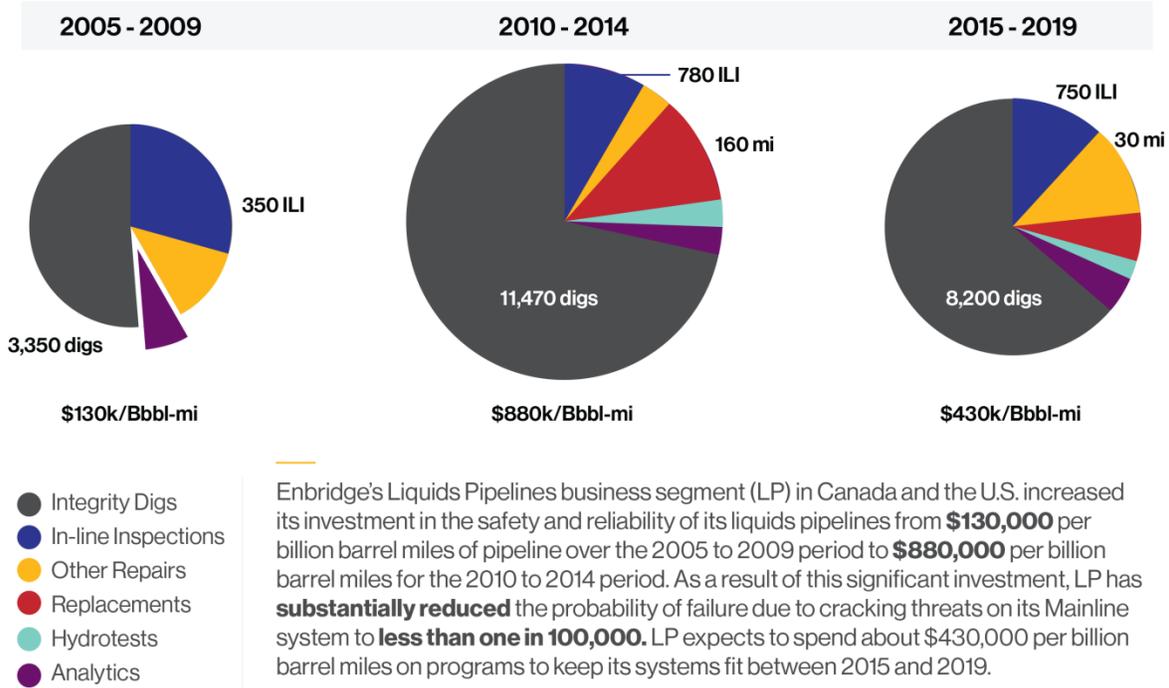
As the following pie charts show, LP increased its investment in these areas from \$130,000 per billion barrel-miles of pipeline over the 2005 to 2009 period to \$880,000 per billion barrel-miles over the 2010 to 2014 period. LP is forecast to spend about \$430,000 per billion barrel-miles on system integrity programs for 2015 to 2019.

We have normalized our expenditures by billion barrel-miles by summing up the distance that LP ships each barrel of crude on its system in a given year. Normalizing numbers in this way makes it possible for us to fairly compare what we spend on maintaining the fitness of our systems and on leak detection over time, given that our pipeline system has been growing almost continually over the past several years.

After our 2010 Marshall spill, LP significantly increased its efforts to understand the condition of its pipelines and to mitigate any discovered threats. Compared to the 2005 to 2009 time period, the 2010 to 2014 time period reflects LP's increased programs, projects and initiatives. These investments have resulted in LP advancing its systems (technology, analysis and process safety) such that they are now at or near industry leading in the areas of fitness, safety and reliability management for liquids pipelines.

Over the next five-year time period (2015 to 2019), LP's commitment to maintaining the fitness of its systems and to effectively detecting leaks will not decrease. Advancements in predictive (reliability) modeling, data analysis and improved efficiency in carrying out these activities will enable LP to continually enhance the safety and fitness of its systems while optimizing expenditures. This optimization is reflected in the following charts, which show comparable numbers of inspections and scale of analytics to the previous time period.

Liquids Pipelines (Canada and U.S.) System Integrity Activity



Enbridge's Liquids Pipelines business segment (LP) in Canada and the U.S. increased its investment in the safety and reliability of its liquids pipelines from **\$130,000** per billion barrel miles of pipeline over the 2005 to 2009 period to **\$880,000** per billion barrel miles for the 2010 to 2014 period. As a result of this significant investment, LP has **substantially reduced** the probability of failure due to cracking threats on its Mainline system to **less than one in 100,000**. LP expects to spend about \$430,000 per billion barrel miles on programs to keep its systems fit between 2015 and 2019.

*Note that all dollar amounts include a mix of Canadian and U.S. dollars.

In addition, LP has more than doubled the number of employees and contractors who are dedicated to maintaining system fitness over the last five years, from nearly 80 positions in 2010 to more than 160 positions at the end of 2015. Similarly, LP has increased the size of its team dedicated to leak detection and pipeline control, from more than 130 positions at the beginning of 2011 to more than 230 at the end of 2015. Some of this growth is due to LP's overall growth, but part of it is due to its increased focus on maintaining system fitness, leak detection and pipeline control.

Within our GD and GPP&ES business segments, over 110 professionals are dedicated to maintaining the long-term fitness of their systems.

Dollars Spent by LP Canada, LP U.S., GD and GPP&ES on Maintaining the Fitness of our Systems

(2012 – 2015)

	Liquids Pipelines Canada (CAD)	Liquids Pipelines U.S. (USD)	Gas Distribution (CAD)	Gas Pipelines, Processing & Energy Services (USD)	Total (CAD and USD)
2012	\$469 million	\$624 million	\$114.6 million	\$15.1 million	\$1.2 billion
2013	\$900 million	\$645 million	\$113.9 million	\$15.9 million	\$1.6 billion
2014	\$767 million	\$375 million	\$124.9 million	\$11.7 million	\$1.2 billion
2015	\$389.7 million ¹	397.5 million ²	\$133.3 million	\$5 million ³	\$925.5 million
TOTAL					\$4.925 billion⁴

¹ Includes spending totals in Canada of \$370 million for LP system fitness programs and \$19.7 million for LP leak detection programs.

² Includes spending totals in the U.S. of \$390 million for LP system fitness programs and \$7.5 million for LP leak detection programs.

³ A significant portion of GPP&ES's spending from 2012 to 2014 was on Propylene and Tinsley assets, of which it divested in 2015.

⁴ Includes Canadian and U.S. dollar amounts.

Improvements to Management Systems

Management systems help us achieve industry-leading standards, controls and procedures such that we can maintain safe, reliable operations. They also enable employees to execute work consistently across our company.

For LP, the Integrated Management System provides a holistic approach to ensuring that all of LP acts in accordance with internal policies and external regulations through the alignment of strategy, processes, technology and people, thereby improving efficiency and effectiveness.

For GD, the Integrated Management System sets out a governance framework that integrates and documents GD's core processes, resources, policies and organizational structures. This system is based on a requirements list and on multiple corporate and regulatory requirements to ensure that all appropriate elements were included.

In 2015, our business segments made a number of improvements to their management systems:

- LP developed and documented the core processes that more clearly define the roles and responsibilities that are required to maintain the fitness of its systems.
- GD developed and defined its management system structure. In addition, it formally documented its management system requirements and how it is meeting them.

- In 2015, GPP&ES began implementing an enhanced risk-based inspection software tool for its processing plants. This software tool will house all inspection data for vessels and piping within each plant and will prioritize and schedule inspections based on risk.

Complementing the business segment management systems are our Enterprise Risk Management (ERM) Framework and our Safety Management System Framework, which provide baseline standards to which we expect our business segments to adhere. These frameworks include tools and techniques that the business segments use to effectively manage their risks.

In 2015, we began implementing the two frameworks. We conducted an extensive review to ensure that their components were embedded within LP's Integrated Management System, and carried out similar review processes in other business segments and groups. This effort will help us reinforce a consistent approach to addressing risks across our organization. *For more information, please see the Risk Management section of this report.*

Pipeline Inspections and Integrity Digs

Each year we conduct a significant number of pipeline inspections using sophisticated tools that incorporate leading imaging and sensor technology, and that are capable of scanning for features that could indicate potential problems. Our inspections allow us to monitor the physical condition of our pipelines from the inside and outside, and to gather the information we need to keep our systems fit.

In 2015, we completed 194 pipeline inspections—including in-line, hydrostatic, ultrasonic and pressure test inspections—on our crude oil and natural gas pipelines and distribution systems. Over the past four years, we have carried out more than 890 such inspections on our systems.

As part of our program to maintain the fitness of our systems, we also perform integrity digs along our pipeline network. Each integrity dig involves excavating a section of buried pipe so that we can carefully clean it, remove its coating and examine it. If we find a defect, we repair and re-coat it, and carefully backfill the excavation site. In 2015, we carried out 1,575 integrity digs across our systems.

Here are some highlights of our pipeline inspection and integrity dig programs by business segment:

- LP used in-line inspection tools on 141 runs to inspect more than 10,349 kilometers (6,431 miles) of pipeline, which is about 42 percent of its active system. It also carried out 1,545 integrity digs.
- GD conducted 31 in-line and ultrasonic inspections on 13.5 kilometers (eight miles) of its higher pressure pipeline. It also investigated and mitigated 30 features, including metal loss, deformation and crack indications.
- GPP&ES carried out 14 in-line inspections on 419 kilometers (260 miles) of its U.S. gas and crude oil systems to meet regulatory requirements. It carried out an additional inspection as part of preventative maintenance, and completed 30 integrity digs.

Number of Pipeline Inspections Performed by LP, GD and GPP&ES (2012 – 2015)

	Liquids Pipelines	Gas Distribution	Gas Pipelines, Processing & Energy Services	Total
2012	170	19	45	234
2013	211	22	25	258
2014	167	15	23	205
2015	141	31 ¹	22 ²	194

¹ Includes in-line inspections and ultrasonic inspections.

² Includes in-line inspections, hydrostatic and pressure test inspections.

Right-of-Way Optimization

In 2015, LP implemented a “right-of-way optimization” initiative under which it geographically bundled its integrity digs so as to capitalize on program efficiencies and minimize the number of times it needed to access the land along its rights-of-ways.

Improvements to Operational Reliability

In our drive to enhance operational reliability, we continued to advance new assessment techniques and to develop our system fitness management programs in 2015.

Engineering Analytics

LP is applying engineering techniques from other highly reliable industries, such as the airline and nuclear industries, to enhance the ways it determines the potential of pipeline failures. In particular, LP has adapted the safety-case method—a highly structured approach that uses probabilistic analysis to assess operating hazards and mitigation plans—for its liquids pipelines. LP is using this technique as an additional way to assess the fitness of its pipelines and the effectiveness of its inspection and damage prevention programs.

Geohazards Assessment

Our liquids pipelines system crosses numerous rivers and widely varying terrain. To protect the integrity of this vast continental system, we closely monitor geohazards (environmental forces such as floods, soil erosion, seismic activity and slope movement), which have the potential to move pipelines, and can result in stresses and strains that could cause pipeline failures.

Since 2012, we have developed a comprehensive geohazard process management program for our liquids pipelines. Over the last four years, this program has involved extensive assessments with geotechnical engineers and other specialists to identify and inspect more than 5,700 geohazard sites, primarily river crossings and slopes. We continue to perform various monitoring activities at these sites, tracking slope movement, measuring pipe strain with strain gauges, and watching for extreme weather events such as floods and earthquakes. In some cases, we must alleviate risk to our pipelines by replacing segments of pipe, remediating high risk slopes or replacing river crossings. Based on risk levels, we have selected a number of sites for annual inspections. In 2015, we inspected more than 2,800 geohazard sites in Canada and the U.S., including slopes and water crossings.

During the year, we also developed an online training course to increase employee awareness about geohazards. To be rolled out in 2016, the course will enable field employees to identify the main geotechnical hazards to our pipelines and to better understand our geohazard management program.

Hydrostatic Testing

In June, 2015, the National Energy Board (NEB) asked us to conduct hydrostatic testing on three segments of our Line 9B Reversal and Line 9 Capacity Expansion project (Line 9) in Ontario and Quebec. On September 30, 2015, the NEB confirmed that the tests we conducted met its criteria and were successful.

Maintaining Facility Fitness

As we increase programs to maintain the fitness of our Mainline system, we are also focusing attention on maintaining the fitness of our facilities.

LP is applying new technologies to screen for defects on facility pipelines that it is not able to detect using in-line inspection devices, or that are difficult to inspect due to the pipe and valve configuration. As part of this work, LP is employing above-ground inspection techniques, including magnetic tomography, to complete preliminary assessments of below-ground piping in facilities for corrosion and crack defects. In 2015, LP successfully used the technology to inspect 13.9 kilometers (8.6 miles) of facility piping, including tank lines, at terminals in Edmonton and Hardisty, Alberta; Stony Beach, Saskatchewan; Cromer, Manitoba; and Sarnia and Westover, Ontario.

LP is also continuing to employ radiographic techniques to screen small-diameter drain-line connections for corrosion in facilities across its system. The technology provides a detailed x-ray image of small diameter lines to detect sediment buildup and corrosion damage. LP uses the results of these inspections to proactively manage drain lines through cleaning, chemical inhibition or repair.

Along with numerous inspections of above-ground and below-ground piping, LP is nearing completion on the inspection of relief lines throughout the system to ensure that these assets will function properly when needed. LP also regularly inspects welded oil storage tanks based on American Petroleum Institute (API) requirements. Each year, LP removes approximately five percent of the tanks from service to perform a thorough inspection and refurbishment.

Under Occupational Safety and Health Administration (OSHA) regulations, operators in the U.S. are required to inspect their gas processing equipment, as identified in API codes and recommended practices, every five years externally and every 10 years internally. To comply with these regulations, GPP&ES follows a rigorous schedule to assess the mechanical integrity of its 28 natural gas processing plants, inspecting 20 percent of every plant each year, checking vessels and piping for corrosion, and testing all safeguards. To support these inspections, GPP&ES implemented a plant condition monitoring system in 2015. The new system will allow for a more efficient inspection program by highlighting risk mitigations of pressurized equipment and providing adequate annual scheduling for assessments.

Preventative Maintenance of GD's Gas Storage Operations

GD's natural gas storage operation provides it with a critical natural gas load balancing service. To help ensure the operation's reliability, GD supports a preventative maintenance program that consists of proactive inspections that are determined by regulatory requirements, vendor warranty or best practices of gas storage assets, and that include required follow-up repairs. Compression equipment, injection, withdrawal wells, SCADA systems and electrical systems are all included under the scope of the preventative maintenance program.

GD schedules approximately 1,090 preventative maintenance activities each year to ensure that it can proactively identify and repair problems.

Supporting GD's Cathodic Protection Program

As part of its annual compliance program, GD collects data on the cathodic protection of the steel pipe in its natural gas distribution network. GD uses the data to assess the effectiveness of its corrosion prevention system against protection criteria. If the data identify areas of the system that fall below protection criteria, GD's maintenance crews follow up to investigate the cause and to make any necessary repairs. Since 2013, GD has implemented efficiencies to speed up the cycle from data collection to repair. As a result, the effectiveness of the corrosion prevention system has improved from 89 percent in 2013 to 94 percent in 2015.

Fitness for Service of GD's Customer Assets

GD inspects all customer piping and appliances prior to activating natural gas services.

In addition, as mandated by Measurement Canada, GD completes 60,000 to 90,000 natural gas meter and regulator exchanges each year, during which it inspects its customers' piping and appliances for safety and compliance with the Canadian Standards Association Natural Gas Installation Code. GD issues warning tags if its customers' piping and appliances do not meet safety requirements. If it identifies immediate hazards, it disconnects the natural gas until the issues are resolved by a licensed technician.

In 2015, GD also inspected approximately 20,000 customer homes that it supplies with high-pressure (175 psig) and extra high-pressure (500 psig) gas. During the inspections, it immediately resolved critical safety issues and scheduled follow-up work for non-critical issues.

And, GD routinely inspected customers' piping and appliances when it responded to emergency or other customer-initiated service calls.

In 2016, GD will begin implementing a Customer Safety and Compliance Quality Management Program as part of Ontario Regulation 212/01 to improve the condition monitoring, mitigation activities and safety associated with customer piping and appliances. This program will fall under GD's Integrated Management System for Continuous Operational Improvement, the elements for which will include:

- re-inspections of new and existing appliances,
- safety and risk studies regarding asset integrity,
- improved competencies for technicians,
- engaging the heating, ventilating and air conditioning (HVAC) industry and the Technical Standards & Safety Authority, and
- enhancing existing standards and policies.

Improvements to Process Safety Management

Another way that we are maintaining the fitness of our systems and increasing the safety of our pipelines is through process safety management.

Process safety incidents typically involve an unexpected integrity failure in a pipeline system or processing facility, often involving a fire, explosion, rupture, or release or leak of hazardous material. These incidents have the potential to injure people and claim lives, impact the environment, and have far-reaching and long-lasting consequences.

To minimize these risks, industry applies a disciplined management approach focusing on prevention, detection, control and mitigation of process safety incidents. This approach involves a comprehensive set of best practices for keeping gas or oil in the pipe, encompassing everything from design and construction through to operation and maintenance of pipelines and facilities. Process safety practices work by integrating the outputs of all departments, so a change in one area will not have an adverse impact somewhere else. By paying close attention to process safety management, we help to ensure operational reliability and protect workers, the public and the environment.

We promote the consistent development of process safety programs across our company through our Joint Business Unit Process Safety Council, which reports to our enterprise-wide Operations and Integrity (OIC) Committee. Through the council, senior leaders from each of our business segments meet monthly to share learnings and implement best practices.

Each business segment has established its own process safety team and is taking steps to incorporate process safety management into day-to-day operations. Some of the areas that they are addressing are:

- incident investigation procedures,
- equipment information and standards,
- controlling changes to prevent unplanned impacts to operational reliability, and
- process safety hazard assessment and mitigation.

Over the last four years, through the API, we have helped develop an industry recommended practice (API RP 1173) for pipeline safety management system requirements. The result of substantial industry effort, API RP 1173 provides detailed guidance on how to develop and maintain a pipeline safety management system. By applying the new recommended practice, pipeline operators are taking important steps to develop a comprehensive, process-oriented approach to safety that emphasizes continual assessment and improvement.

In 2015, LP, GD and GPP&ES conducted a gap analysis to compare their process safety management practices against the new recommended practice. As a result, they have developed action plans for improvement and are building API RP 1173 requirements into their management systems.

Improvements to Leak Detection and Monitoring

Because our core business is to safely transport hazardous materials through a network of pipelines, we continually improve the methods we use to prevent and detect leaks and releases.

LP continues to improve its computational pipeline monitoring (CPM) systems that collect data from strategically located flow meters and pressure and temperature sensors along our pipelines. In 2015, LP carried out development and testing of CPM methods to improve leak detection performance. These methods are expected to enhance LP's ability to detect smaller leaks reliably and quickly.

In addition, LP has introduced a rupture-detection system to complement its existing leak detection strategy. The goal of the system is to ensure prompt and consistent detection and response to ruptures (high volume, high flow events). LP has substantially completed phase one of the project and has deployed the rupture detection system on most of its pipelines across Canada and the U.S. This effort builds on earlier work that LP had conducted through [API](#). In 2014, together with industry, LP participated in the development of an API best practice recommendation on liquids pipeline rupture recognition and response.

In 2015, LP also executed computer-simulated tests to measure its leak detection performance across its entire pipeline system. It complemented these tests with 15 announced and unannounced fluid withdrawal tests, which

enable LP to evaluate the performance of its system and its people to identify further improvements to processes and technology.

GD continually enhances its knowledge of the characteristics of its natural gas distribution system through targeted risk assessments of its assets. In 2015, GD conducted leak surveys on more than 7,300 kilometers (4,530 miles) of distribution mains in the Enbridge Gas Distribution (EGD) franchise area, which equals approximately 20 percent of the EGD system.

Helping to support this effort was GD's new Leak Survey Management System. This GIS-driven system provides leak survey technicians a visual representation of where the assets to be surveyed are located, identifies their location, enables them to easily capture findings and allows the business segment to track completion of the surveys in a more accurate manner. In 2015, GD continued to enhance the system to incorporate specialized inspection programs, using it, for example, to manage inspections of residential meter sets against compliance requirements. GD is now working with 3-GIS LLC to further evolve the system to manage and execute corrosion prevention programs.

Industry Leadership

We continue to shape industry best practices and technology development through industry associations such as:

- American Gas Association (AGA),
- American Petroleum Institute (API),
- Association of Oil Pipe Lines (AOPL),
- Canadian Energy Pipeline Association (CEPA),
- Canadian Gas Association (CGA),
- Southern Gas Association (SGA), and
- Petroleum Research Council International (PRCI).

Here are some achievements that resulted from our involvement in industry associations in 2015:

Safety

Over the past four years, in collaboration with API, we participated in the development of a safety management system for the pipeline industry. This recommended practice, known as API RP 1173, was completed and published in 2015, and is designed to build and enhance pipeline safety management practices for the industry. We are now working with several industry associations, including AGA, AOPL and SGA, to share approaches on how to best implement the new recommended practice.

Crack Management

Through API, we played an instrumental role in developing a new crack management recommended practice. This operational practice will provide guidance to pipeline companies in taking an integrated management system approach to address cracks in liquids pipelines systems.

In-line Inspection Technologies

We have worked with PRCI to complete the NDE-4E project to evaluate the effectiveness of a wide range of in-line inspection (ILI) technologies for liquids pipelines. The foundation for the study was the development of an extensive database of crack inspection data collected from pipeline operators through an industry data mining exercise. The study represents the first known exercise to establish an industry-wide database for ILI technologies and has set a new standard for data mining as a basis for establishing ILI performance metrics. The project report was completed

and published in 2015 through PRCI. We sponsored this project and provided leadership from inception to completion.

Joint Industry Partnerships

We have helped to lead two joint industry partnerships focused on external leak detection sensors. Involving a research company and the Alberta and federal governments, the partnerships are evaluating the use of aircraft-mounted sensors and cable-based sensors installed along pipelines.

Peer Review of Gas Distribution Operating Practices

Through AGA, our GD business segment participated in a peer review of leading operating practices among a select number of Canadian and U.S. gas distribution companies. The pilot initiative involved information sharing by industry experts on a range of topics including system integrity, leak detection and damage prevention.

Leadership through Industry Association Working Groups

We are also actively engaged in industry association committees and working groups to advance best practices, new technologies and improve codes and standards. In 2015, for example, experts from our LP Pipeline Integrity and Leak Detection departments participated in more than 40 decisive roles in PRCI, API, AOPL, CEPA and other industry organizations. Our employees also contributed to numerous industry conference presentations and technical articles in an effort to share learnings and experience related to pipeline integrity management and leak detection.

For more information, please see the R&D and Innovation section of this report.

ENERGY & CLIMATE CHANGE

OVERVIEW

Our strategy to address the climate impacts resulting from our business and to support the transition to a lower-carbon economy includes publicly tracking and reporting on our efforts to reduce our direct and indirect greenhouse gas (GHG) emissions, investing in demand-side management (DSM) programs for our natural gas customers, building out our portfolio of investments in renewable energy projects, and working with governments, businesses, environmental organizations and communities on new solutions to climate challenges.

MANAGEMENT APPROACH

Governance

The Corporate Social Responsibility (CSR) Committee of Enbridge's Board of Directors oversees policies, practices and risk management related to our CSR and sustainability performance, including climate change, carbon management and energy use.

Our Chief Sustainability Officer (CSO)'s role is to provide oversight at an enterprise-wide level on all of our CSR strategies and activities. This role reflects our belief that CSR and sustainability are fundamental to our business strategy, and that they create value for our shareholders and stakeholders.

Our CSO is responsible for meeting overall business and sustainability goals and has a mandate to increase our level of engagement, both internally and externally, in discussions regarding how we should deal with the impact of climate change in our decision making and investments. Our CSO's responsibilities are tied to short-term monetary incentives, which include: meeting environment and climate change policy objectives; and disclosure and communication goals in the CDP, Dow Jones Sustainability Index and other voluntary rating and ranking disclosures. *For more information, please see the Government Relations & Lobbying section of this report.*

Our CSO also has a mandate to provide strategic advice to the Board and Executive Leadership Team (ELT) on energy and carbon issues and to expand collaboration across our value chain on these issues with key external stakeholders.

From a corporate perspective, our CSO also provides strategic advice to both the Board and the ELT on regulatory risks and stakeholder perspectives related to climate change, and reports quarterly to the CSR Committee of the Board.

Our Government Relations and Law and Regulatory Affairs departments monitor regulatory trends so we can proactively position ourselves to address potential challenges and opportunities that emerge on climate change. We also hold memberships with numerous industry associations and think tanks that help us to identify emerging trends and seek collaborative solutions.

Climate Policy

In 2015, we consulted internally and externally on our role in the transition to a lower-carbon future, and used the feedback we received to update our corporate climate policy. In our updated Climate Policy, we identify the actions we are taking to manage climate risks and respond to opportunities. These include:

- reducing our own carbon footprint and integrating climate considerations into key business processes such as risk management, business development, investment review and supply chain management,
- growing our renewable energy business,
- expanding the use of natural gas to make access to lower-carbon energy more feasible,
- promoting and enabling energy efficiency and DSM,
- collaborating with others to achieve progress on shared climate and energy challenges, and
- supporting the climate and energy goals established by governments in the jurisdictions in which we operate.

The Influence of Climate Change on our Business Strategy

Our business strategy is informed by the following priorities:

- our focus on safety and operational reliability,
- successful execution of our current capital investment and operational plans,
- securing our longer-term future, in part by developing new platforms for growth and diversification, and
- maintaining our foundation with employees and communities.

We have incorporated climate change into these key priorities in a variety of ways:

Investments in Renewable and Alternative Energy

We have incorporated climate change into our key priorities through our investments in renewable and alternative energy. Since 2002, we have invested nearly \$5 billion in green power generation projects in Canada, the U.S. and the UK. Together our renewable and alternative energy projects represent nearly 2,800 (MW) of gross renewable generating capacity. Of this total, we own about 1,900 megawatts (MW) of generating capacity.

Our renewable and alternative energy business is diverse and includes a variety of energy sources and delivery systems. We are one of Canada's largest renewable energy producers and, in the U.S., we are a growing renewable energy player with investments in wind, solar and geothermal. In 2015, we acquired a 24.9 percent interest in the 400-MW Rampion Offshore Wind Project in the UK for approximately \$750 million, and a 100 percent interest in the 103-MW New Creek Wind Project in West Virginia for approximately US\$200 million. We are also investing in a wide range of alternative energy projects, including waste heat recovery and run-of-river power generation, and are exploring technologies to store renewable energy. *For more information, please see the Renewable & Alternative Energy section of this report.*

Growth in Natural Gas Infrastructure

Natural gas will continue to play an important role in the transition to a lower-carbon economy. As such, we are investing in expansion projects within our natural gas distribution franchises. Recently, our Gas Distribution business segment (GD) evaluated natural gas' competitiveness as a fuel source (in comparison to fuel oil or propane) under a market mechanism for carbon, such as the cap-and-trade approach, which is anticipated to be implemented in Ontario as early as January 1, 2017. As part of its evaluation, GD assigned the theoretical price of \$200 per tonne of carbon dioxide equivalent (t CO₂e)—much higher than the forecasted \$18 per t CO₂e for the first few years of the Ontario cap-and-trade market—to determine how that price would impact commodity prices. GD determined that, even at that theoretical price, natural gas would still be a lower-cost alternative to fuel oil, propane or electricity.

Investments in Technologies that Support a Lower-Carbon Future

We look for opportunities to invest in technologies that support a lower-carbon future. One example is our investment in Hydrogenics Corporation, a utility-scale energy storage technology; another is our investment in Temporal Power, a developer of an innovative flywheel technology. These investments are aimed at improving the economic effectiveness of intermittent energy sources such as wind and solar. *For more information, please see the R&D and Innovation section of this report.*

Demand-Side Management

We continue to help our natural gas utility customers manage their energy use through a comprehensive portfolio of DSM programs. *For more information, please see 2015 Performance in this section of the report.*

Planning for Extreme Weather Events

We include planning for extreme weather events in our operational response plans, and have installed on-site emergency generators at several of our operational facilities to provide power in the event of extended outages (during ice storms, for example). In addition, because we operate significant infrastructure in the Gulf of Mexico region (both onshore and offshore), and because there is a risk that these assets could be impacted by hurricanes, where possible, we have relocated our onshore assets to higher ground. Our offshore platforms are, for the most part, self-secured and have received minimal damage from past storms. To minimize weather-related risks, we have retained the services of a weather-service vendor to help track weather patterns, especially during hurricane season. We also factor weather-related risks into our decisions on insurance coverage.

Target Setting for GHG Emissions

We recognize that, for us to play a leadership role in the transition to a lower-carbon future, we must take a proactive approach to reducing our own carbon footprint. Setting and achieving enterprise-wide targets for GHG reductions, including those that we met in 2005 and 2010 demonstrates a commitment to managing our own climate risk. In addition, addressing our own carbon footprint supports the achievement of emission reduction goals set by Canada, the U.S. and other governments in jurisdictions in which we operate.

Considering that our business segments vary significantly in their emissions profiles, risks and opportunities, we believe that, to be meaningful, we will achieve further gains through plans that we implement at the business-segment level. Accordingly, we are reviewing our current and projected GHG emissions and energy consumption profiles to develop multi-year carbon and energy efficiency plans and goals on a business-segment basis. These new targets will apply to both Scope 1 (direct) and Scope 2 (indirect) GHG emissions. Our work in this area is supported by our Emissions Data Management System, which enables us to track our emissions and to comply with emissions reporting requirements in Canada and the U.S.

Stakeholder Engagement and Collaboration

We attach a high value to engaging with stakeholders on climate change issues, and actively participate in the climate change-related activities of various industry associations, think tanks and governments. We also proactively engage stakeholders regarding the climate change implications of our projects and operations.

Ontario – Throughout 2015, representatives from GD regularly participated with Ontario members of the Canadian Gas Association in consultations with the Ontario Ministry of Environment and Climate Change (MOECC) to discuss the implementation of a cap-and-trade system in Ontario and the expansion of GHG reporting in the province. Discussions focused on how the natural gas industry can help Ontario meet its 2020 and 2030 emission reduction targets through initiatives such as:

- GD's DSM offers that help consumers improve the efficiency of their buildings, and
- greening the natural gas grid through renewable natural gas, and programs that help the transportation sector switch to natural gas fueled vehicles.

For more information, please see 2015 Performance in this section of the report.

Alberta – In 2015, our CSO served on the Alberta government's five-member Climate Advisory Panel, whose mandate was to review Alberta's existing climate change policies, engage with Albertans and provide Alberta's Minister of Environment and Parks with recommendations on how to reduce the province's GHG emissions. The panel delivered its report to the government in November 2015, and on November 22, 2015, Alberta Premier Rachel Notley announced Alberta's Climate Leadership Plan, a new climate change strategy based on the panel's recommendations. Details of the final strategy are being developed, but there are four key areas that the Alberta government is moving forward on:

- phasing out coal-generated electricity and developing more renewable energy,
- implementing a new carbon price on GHG emissions,
- a legislated oil sands emissions limit, and
- deploying a new methane emission reduction plan.

STRATEGIC PRIORITIES

- **Reduce GHG emissions.**
- **Reduce methane emissions.**
- **Reduce energy consumption.**
- **Disclose our GHG emissions and energy use.**
- **Help customers use energy wisely through demand-side management (DSM) programs.**

2015 PERFORMANCE

Note to Readers

We have organized Enbridge's GHG emissions and energy information in accordance with the Global Reporting Initiative's G4 Sustainability Reporting Guidelines, which include categories for GHG emissions (G4-EN15 through G4-EN19) and energy (G4-EN3 through G4-EN7). There are several common aspects to these categories, so in this section we have provided background information that is applicable to the entire GHG emissions and energy section of Enbridge's *2015 CSR & Sustainability Report*. We report G4-EN20 – Emissions of Ozone-Depleting Substances, and G4-EN21 – NO_x, SO_x and Other Significant Air Emissions, in the Environment and Land Management section of this report.

We present the GHG emissions and energy data on a corporate-wide basis. In addition, since we operate several business segments, each of which has a unique emissions and energy profile, we also provide a break-out of the information for each of the following business segments and group:

- Liquids Pipelines (LP)
- Gas Pipeline, Processing & Energy Services (GPP&ES)
- Gas Distribution (GD)
- Green Power, Transmission and Emerging Technology (GPT&ET) group

In addition, we include Corporate, which covers Enbridge's corporate head office operations that provide centralized corporate-wide services and management.

Consolidation Approach: We currently consolidate our energy and GHG emissions on an operational control basis, as outlined in The GHG Protocol. Under this approach, we aggregate and report on the energy use and Scope 1 and Scope 2 GHG emissions data for the subsidiaries over which we have control of operations, including the authority to implement operating policies. The operations under our operational control are in Canada and the U.S.

Years Covered: With minor exceptions, we present all energy use and emissions data for three years (2012, 2013 and 2014) to show trends. Data for 2014 were the most current available in time for Enbridge's 2015 CSR & Sustainability Report, which we posted in the first quarter of 2016.

Emissions and Energy Trends: Generally, because all of our business segments are growing and investing in new facilities, they will experience an associated increase in GHG emissions and energy use. They may also show some year-to-year variability in GHG emissions and energy consumption for a variety of reasons, including weather-related impacts, economic conditions and competition for market share. We provide further explanation of trends with the business segment data.

Global Warming Potential (GWP) Rates: In this report, we have used the 100-year GWP values from the Fourth Assessment Report by the Intergovernmental Panel on Climate Change to calculate our GHG emissions on a tonnes of carbon dioxide equivalent (t CO₂e) basis.

Standards, Methodologies and Assumptions: We compile GHG emissions inventories following the methods and standards that apply to our industry. Our energy use data are predominantly based on metered fuel and electricity consumption, either from our own internal fuel meters or from utility and fuel invoices. In a few cases, we estimate energy use from activity data, such as leased office square footage or vehicle miles driven. Additionally, in jurisdictions with mandatory reporting regulations, we use the methods prescribed in these regulations.

KEY FACTS

In 2015, we consulted internally and externally on our role in the transition to a lower-carbon future, and used the feedback we received to **update our corporate Climate Policy**, which provides enterprise-wide guidance and standards on how we are responding to climate risks and opportunities.

In 2015, **our Chief Sustainability Officer served on the Alberta government's five-member Climate Advisory Panel**, whose mandate was to review Alberta's existing climate change policies, engage with Albertans and provide Alberta's Minister of Environment and Parks with recommendations on how to reduce the province's GHG emissions.

In 2015, we publicly supported **new carbon pricing policies in Alberta, Quebec and Ontario**.

Cumulatively, between 1995 and the end of 2014, our DSM programs saved approximately **9.6 billion cubic meters of natural gas and reduced carbon dioxide equivalent emissions by 18 million tonnes**.

Reduce GHG Emissions

Our GHG Emissions Targets

We recognize that climate change is an important issue, and are focusing on reducing our own operational carbon emissions in Canada through business segment-level targets.

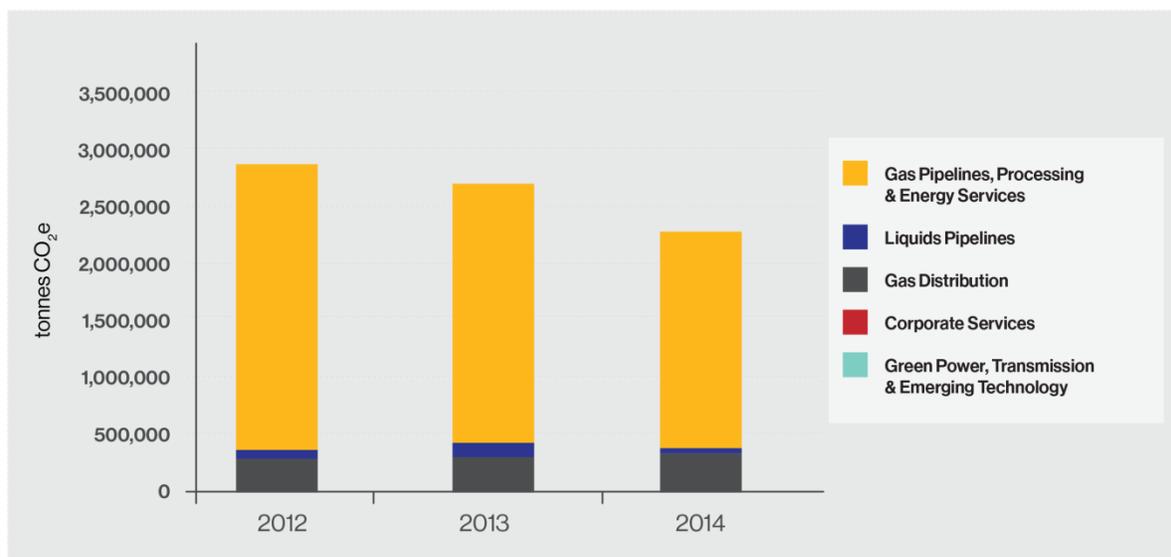
In 2005, we achieved our initial target to reduce the direct GHG emissions that result from our Canadian operations by 15 percent below 1990 levels and, in fact, achieved an 18 percent reduction. We subsequently set a new 2010 target to reduce our direct GHG emissions that result from our Canadian operations by 20 percent below 1990 levels and, in 2011, determined that we had in fact achieved a 21 percent reduction.

In 2015, we assessed the feasibility of setting a multi-year, corporate-wide target for carbon reduction and energy efficiency improvements that each business segment could implement. Our assessment involved reviewing our business segments' emissions and energy use profiles, finding opportunities for operational improvements and discussing the potential for establishing an intensity-based target with a common metric for the entire company. In 2016, we plan to develop business segment-specific Carbon and Energy Efficiency (CEE) plans, which will serve as the foundation for an enterprise-wide target.

Our Direct GHG Emissions (Scope 1)

The graph and table below show the direct, or Scope 1, emissions for our GPP&ES, LP, GD and Corporate business segments, as well as for our GPT&ET groups. Scope 1 emissions include the emissions (fugitive, combustion, vented) that result from activities associated with our company-operated facilities, buildings and leased offices, as well as from our company-operated vehicles and aircraft.

Enbridge Scope 1 GHG Emissions (t CO₂e)



Scope 1 (t CO ₂ e)	2012	2013	2014
Liquids Pipelines (LP) ¹	19,000	121,000 ^{2,3}	56,000 ³
Gas Pipelines, Processing & Energy Services (GPP&ES)	2,559,000	2,273,000	1,899,000
Gas Distribution (GD)	293,000	301,000	328,000
Green Power, Transmission and Emerging Technology (GPT&ET)	500	100	100 ⁴
Corporate	2,000	2,000	2,000
Total - Scope ¹	2,874,000	2,698,000	2,285,000

¹ Our Scope 1 estimates for our LP business segment in the U.S. include vehicle emissions and fugitive emissions from terminal operations (CH₄ and CO₂), as well as stationary combustion-related emissions from pumps, heaters, emergency generators and vapor destruction units. Currently, our Scope 1 emissions inventory does not include emissions that result from space heating, water heating and other small combustion sources. These emissions sources, however, are minor in terms of our LP U.S.'s total Scope 1 and 2 emissions profiles.

² In 2013, we used SF₆ as a tracer gas when we conducted hydrostatic testing of Line 14. The CO₂e of the test (84,800 t) encompasses approximately 74 percent of LP's 2013 Scope 1 total.

³ 2014, LP's Scope 1 GHG emissions are higher than usual due to its temporary use of diesel-fueled generation for new pumps. We have adjusted the 2013 data to account for the temporary diesel-fueled generation that also took place in 2013.

⁴ We have estimated that GPT&ET's 2014 Scope 1 emissions are equal to its 2013 Scope 1 emissions.

From an enterprise-wide perspective, our Scope 1 2014 GHG emissions decreased approximately 15 percent from their 2013 levels.

From a business segment perspective, LP's Scope 1 emissions were higher in 2014 than they have been in the past due to LP's increased use of a fuel in thermal oxidation unit and to its temporary use of diesel-fueled generation (LP uses diesel-fueled generation when grid power is not yet available for new pumps). In addition, LP's 2013 Scope 1 emissions were atypical because it used sulfur hexafluoride (SF₆) as a tracer gas when it was hydrostatically testing an extensive length of pipeline for leaks. We are supporting research into the use of SF₆ alternatives for pipeline leak detection that are less GHG intensive.

GPP&ES's Scope 1 emissions are directly proportional to its system throughput and gas processing volumes. As such, GPP&ES's lower 2014 Scope 1 emissions (compared with 2013) are the result of lower system throughput and gas processing volumes that year.

GD's Scope 1 emissions rose in 2014 over its 2013 levels due to the increased volume of fuel it used at its underground storage operations. GD's fuel use varies depending on the amounts of natural gas it injects or removes from its storage facility. Also, GD's 2014 fugitive emissions increased because it has adopted a higher emission factor for calculating that emissions that are caused by damages to its natural gas pipelines.

GPT&ET's 2014 Scope 1 decrease was mainly due to the fact that it had decommissioned its natural gas-fired fuel cell.

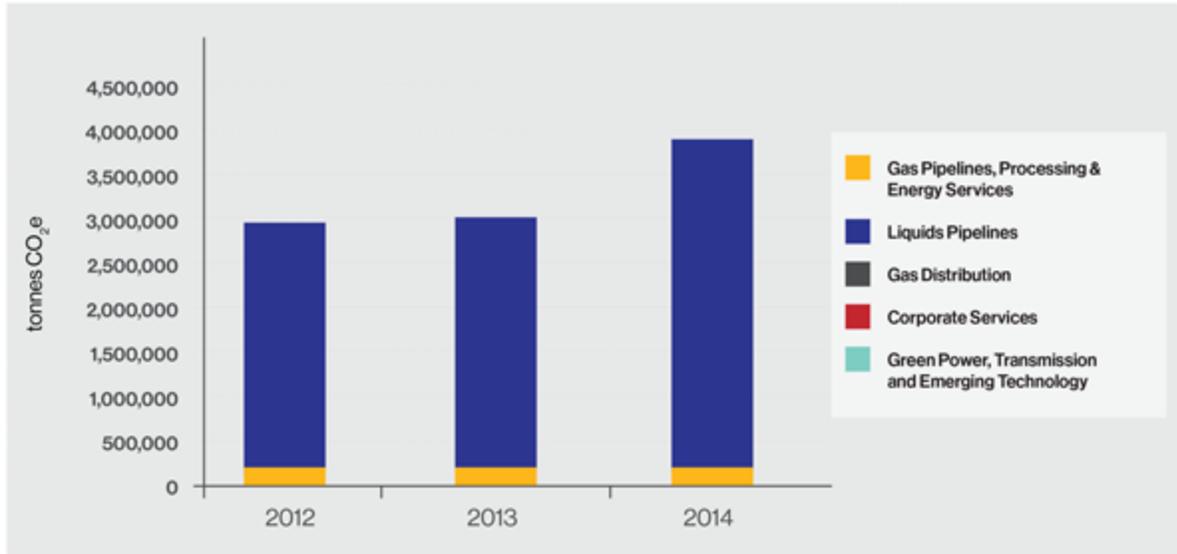
Corporate's GHG emissions have remained fairly consistent from 2012 to 2014.

Our Indirect GHG Emissions (Scope 2)

The graph and table below show the indirect, or Scope 2, emissions for our LP, GPP&ES, GD and Corporate business segments, as well as for our GPT&ET group. Scope 2 emissions include the emissions that result from the off-site generation of electricity, which we buy and consume. We do not purchase heating, cooling or steam energy for our operations.

Each year, we calculate our Scope 2 emissions using the most current Environment Canada or U.S. EPA e-GRID grid-average emission factors. As such, the year-over-year changes in our Scope 2 emissions data may reflect, not only changes in our electricity consumption, but changes in the emission factors that we have used to calculate our emissions.

Enbridge Scope 2 GHG Emissions (t CO₂e)



Scope 2 (t CO ₂ e)	2012	2013	2014
Liquids Pipelines (LP)	2,781,000	2,835,000	3,731,000
Gas Pipelines, Processing & Energy Services (GPP&ES)	208,000	212,000	204,000
Gas Distribution (GD)	2,900	2,400	2,200
Green Power, Transmission and Emerging Technology (GPT&ET)	1,300	1,700	1,700 ¹
Corporate Services	2,400	2,600	2,600
Total – Scope 2	2,995,000	3,054,000	3,941,000

¹ We have estimated that our 2014 Scope 2 emissions for GPT&ET are equal to its 2013 Scope 2 emissions.

From an enterprise-wide perspective, our Scope 2 2014 GHG emissions were approximately 29 percent higher than they were in 2013. This increase is due in large part to LP's increased electricity use. LP uses electricity to operate the pumps that push crude oil and other liquid petroleum products through its pipelines. LP's electricity use has increased as the volume of the product it delivers through its pipelines has increased.

Our Indirect GHG Emissions (Scope 3)

Under its G4 guidelines, the Global Reporting Initiative describes indirect GHG emissions as the emissions that result from an organization's activities, but that occur at sources not owned or controlled by the organization. We do not yet assess all of the indirect GHG emissions that result from our activities because such an assessment would entail a significant analytical effort. We do, however, intend to expand on our Scope 3 emissions reporting in future CSR and sustainability reports. Here we provide only the following Scope 3 GHG emissions:

The GHG Emissions that Result from Our Customers' Natural Gas Use - In the following table we provide a high-level estimate of the Scope 3 emissions that resulted from our customers' use of the natural gas that GD distributes or sells through its natural gas utility subsidiaries. For simplicity, we have assumed that all of the natural gas that GD sold was combusted.

Scope 3 GHG Emissions from Customer Use of Natural Gas (t CO₂e)

2012	2013	2014
20,300,000	22,700,000	24,100,000

Our annual Scope 3 GHG emissions increases are the result of GD adding approximately 35,000 new natural gas customers in 2013 and 2014. The higher emissions in 2014 are also due to the fact that 2014 was colder than 2013 and 2012.

The GHG Emissions that Result from Grid Loss - In the following table, we provide a high-level estimate of the Scope 3 emissions that resulted from the loss of electricity during its transmission and distribution (grid loss). To calculate the estimate we applied the applicable country's most current grid loss percentages to our Scope 2 data.

Scope 3 emissions from grid loss vary from year to year depending on a number of factors, including the amount of electricity purchased, the emissions intensity of the purchased electricity and the percentage grid loss factor, which can vary between electricity supply regions. The higher estimated 2014 GHG emissions due to grid loss reflect that year's higher electricity consumption levels and higher associated Scope 2 GHG emissions

Scope 3 GHG Emissions from Grid Loss (t CO₂e)

	2012	2013	2014
Canada	79,000	87,000	105,000
U.S.	105,000	102,000	138,000
Total	184,000	189,000	243,000

The above estimates are based on the following national- or regional-level grid loss percentage assumptions: For Canada, 6.67 percent, which we derived from Table A13-1 of Canada's National Inventory Report (EC, 2015); for the U.S., 5.82 percent, which we derived from the eGRID U.S. – Eastern Region grid loss percentage, eGRID 9th edition Version 1.0, year 2010 summary tables (EPA, 2014). We have recalculated the estimates for each of the years based on these percentage grid loss values.

The GHG Emissions that Result from Employees' Air Travel for Business - In the following table, we provide an estimate of the Scope 3 emissions that resulted from our employees' air travel for business. We obtained this information from our corporate travel agency, and tracked it in our Emissions Data Management System.

Employee Air Travel for Business (t CO₂)

	2012	2013	2014
Total	4,900	6,000	6,300

For more information, please see *Employee Travel* in this section of the report.

Our GHG Emissions Reduction Initiatives

In 2014 and 2015, we undertook the following GHG emission reduction initiatives:

Offices and Buildings – We reduced the Scope 1 and Scope 2 emissions that result from energy use in our offices and buildings through our efforts to build new facilities to LEED standards. Examples of such facilities are GD's Technology and Operations Centre in the Toronto, Ontario, area and the new Enbridge Gas Storage administrative building in Mooretown, Ontario. We are also renovating GD's Victoria Park offices in Toronto with LEED principles in mind and will be applying for LEED certification for the renovated spaces once they are complete. A number of our leased offices are also located in LEED Gold certified buildings, including three of LP's leased offices, our corporate head office in Calgary, Alberta, and GPP&ES's Houston, Texas, office, which is also an Energy Star Certified building. In Edmonton, Alberta, where we have approximately 2,500 employees, we are consolidating our offices from six buildings to two—the existing Manulife Place, which is LEED-EB Gold certified; and the new Kelly Ramsey Tower, for which the builders plan to attain LEED Gold Certification. Energy-saving features common to many other of our offices include energy-efficient lighting, motion sensors to control lighting, water-saving fixtures and recycling programs.

Vehicles – GD has the largest natural gas vehicle (NGV) fleet in Canada. Every RFP that it issues to vehicle manufacturers requires that the supplier provide vehicles that are either NGV ready or have a component for conversion to NGV.

So far, GD has converted 648 of its 853 fleet vehicles to run on natural gas. The majority of its vehicles are dual-fuel (they run on natural gas and gasoline). Some are medium-duty trucks, which are normally diesel-fueled. These have also been converted to run only on natural gas. Through this initiative alone, GD has reduced its GHG emissions by more than 500 t CO₂e, compared to levels it would be emitting if it were operating gasoline or diesel-fueled vehicles.

GD has also reduced its fleet size by standardizing vehicle designs and building versatility into its fleet. For jobs that would have previously required three trucks, each with its own capabilities, GD has built three different job functions into one truck.

In addition, GD has installed a hybrid power system that enables work trucks to operate AC and DC power tools and equipment from their batteries when their engines are not running. This system not only reduces fuel consumption and GHG emissions, but vehicle idling, noise, and wear and tear.

Employee Travel - Although business travel has grown in recent years along with increases in our employee numbers, we have implemented initiatives that provide alternatives to travel. For example, by the end of 2015, we had 40 active TelePresence videoconferencing meeting rooms, and in 2015, our employees held 4,898 TelePresence meetings (1,803 of which involved three or more rooms).

We are also offering an increasing number of on-line training courses to employees. For example, Enbridge Gas Distribution (EGD, which is one of GD's affiliate companies) now uses web-based training for many of its environment, health and safety programs, thereby avoiding approximately 14 t CO₂e per year in employee travel-

related GHG emissions. In the process, it has also reduced costs and improved productivity through reduced employee travel requirements.

GD also operates five natural gas vanpools in the Greater Toronto Area for its employees who commute to work at its Victoria Park offices. Each vanpool can hold eight passengers and a driver. In total, the program saves approximately 195 t CO₂e annually. Employees benefit by reducing their vehicle fuel and maintenance costs, lowering stress, having preferred parking at the GD office, and having pride in knowing that they are doing their part for the environment and to relieve traffic congestion.

Stationary Combustion Equipment – Because our stationary combustion equipment—including the turbines and reciprocating engines that drive the compressors on GPP&ES’s gathering and transmission pipelines, as well as a variety of boilers, heaters and line heaters—uses a lot of natural gas, we operate it such that we maximize energy efficiency and minimize emissions. We follow recommended maintenance and, in some cases, use asset management software to implement preventive maintenance programs involving air filter, oil and spark plug changes; hose, belt and rod packing inspections; and emission testing. We have also been able to reduce the energy requirements of our line heaters using new technologies and improved temperature control strategies.

Electric Pumps – Because the pumps that push crude oil through our pipelines use a lot of electricity, we aim to optimize their performance such that we lower both our costs and emissions. For example, we use additives or heat to reduce friction and improve the product flow. We also use various techniques to minimize pressure cycling, or the fluctuations in our pipelines’ operating pressures as we start and stop pumps and move crude oil products with different densities and viscosities. In 2014, we avoided emitting an estimated 59,900 t CO₂e by using these techniques.

Construction - While the emissions associated with constructing our projects are small compared with the emissions associated with their ongoing operations, we have implemented several measures aimed at keeping them as low as possible. For example, we use locally sourced pipe whenever possible. We also establish field offices and worker camps in the areas where we are building projects so as to reduce the travel time of project personnel. We transport workers to work sites via bus to reduce the number of vehicles on the roads, and we use local accommodations and trades services wherever possible.

Carbon and Sulfur Dioxide Reinjection - While processing natural gas, GPP&ES reinjects the carbon and sulfur dioxide that results from the process into two acid gas reservoirs near its Aker Treating Plant in East Texas. In 2014, GPP&ES reinjected more than 29,000 t CO₂e and nearly 237 tonnes of sulfur dioxide that it otherwise would have emitted into the atmosphere.

Reduce Methane Emissions

Methane emissions and, to a lesser extent, carbon dioxide emissions, result from natural gas that has either leaked (through fugitive emissions) or been vented. We are committed to reducing these emissions through the following efforts:

GD’s Efforts to Reduce Methane Emissions

GD finished removing all of the cast iron piping from its natural gas delivery system in 2012. By completing this process, we estimate that it was able to reduce its annual GHG emissions—chiefly methane—by approximately 145,000 t CO₂e per year.

In addition:

- GD has experienced a continued decline in the methane emissions caused by third-party damage to its pipelines, thanks to the implementation of Ontario One Call, a province-wide, one-call locate system that GD

helped establish. For more information, *please see the Emergency Preparedness & Response section of this report.*

- For several years, GD has installed excess flow shut-off valves on new service line installations, which reduce the amount of methane (and natural gas) released when service lines are damaged.
- GD has replaced the majority of its high-bleed-rate pneumatic equipment. Begun in the early 1990s, this initiative has reduced methane emissions from pneumatic equipment by approximately 95 percent.
- GD continues to manage its systems to reduce methane leaks through its extensive asset integrity program, which targets preventive maintenance on the equipment and piping with a higher risk of leaking.

GPP&ES's Efforts to Reduce Methane Emissions

In an effort to reduce its methane emissions, GPP&ES:

- has committed significant resources to its Leak Detection and Repair (LDAR) program. Employees at its processing plants now conduct monthly and quarterly LDAR monitoring for natural gas leaks. GPP&ES also uses a Best Management Practice that extends its monitoring to areas of the processing plants that are not subject to regulatory requirements.
- uses forward looking infrared (FLIR) cameras in its LDAR monitoring. GPP&ES has successfully used the cameras at its plants, compressor stations and pipeline rights-of-way to identify leaks and emission sources and to enable timely repairs. The cameras' ease of use and rapid-scan functionality enable GPP&ES to conduct leak detection surveys more often at facilities, resulting in the rapid detection of leaking components and lowered volumes of natural gas lost due to fugitive leaks.
- maximizes the energy efficiency of its equipment—and thus reduces the possibility of methane emissions—using best management practices. Best management practices include conducting all recommended routine maintenance, monitoring the operations of individual engines, and ensuring optimal operating conditions.
- conducts right-of-way surveillance and air patrols on its gathering and transmission pipelines. The surveillance and patrols help GPP&ES quickly identify leaks.
- regularly checks the fitness of its pipelines and other facilities to ensure that they are in good condition.
- uses compressed air—rather than natural gas—to start the drivers in its large CAT® 3600-series compressors, thereby eliminating a source of vented emissions. GPP&ES's preventive maintenance program for engines also helps ensure that its compression equipment is performing efficiently, and that combustion-related methane is kept to a minimum.
- has replaced its high-bleed-rate pneumatic control devices, such as liquid-level controllers, pressure regulators and valve controllers, with no-bleed and low-bleed alternatives.

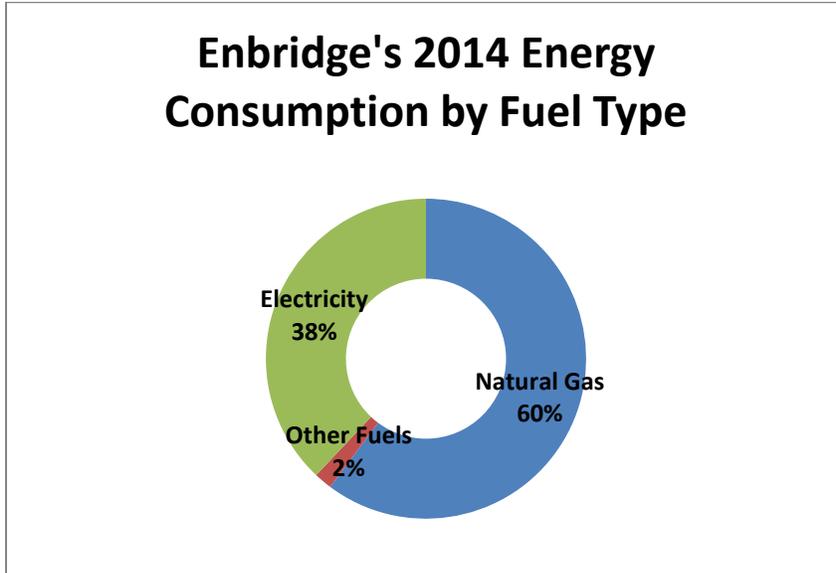
Reduce Energy Consumption

Our Direct Energy Use

The tables and graphs in this section provide information on the energy that we directly use within our operations, through our fuel consumption (of natural gas, propane, gasoline and diesel) and the energy that we indirectly use through our electricity use. Because fuel consumption and electricity use are significant operational costs for most of our business segments, we have a vested interest in optimizing our use of both direct and indirect energy.

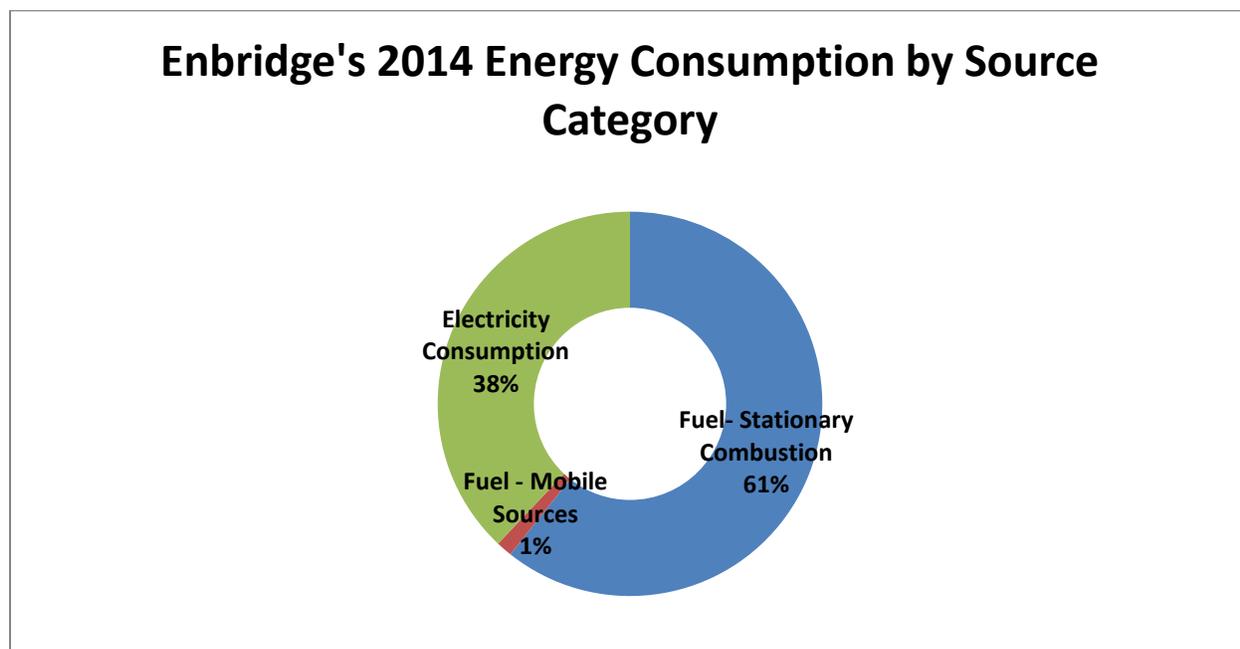
Each of our business segments has a unique energy profile. Consequently, it would be difficult for us to establish one common energy intensity metric that we could apply across the company. We are, however, continuing our efforts to identify and quantify meaningful energy use metrics, and we plan to expand this section in future CSR and sustainability reports.

Enbridge's 2014 Energy Consumption by Fuel Type



Fuel Type	Gigajoules (GJ)
Natural gas	33,997,000
Electricity	21,439,000
Other fuels – gasoline, diesel and propane	1,027,000
Total	56,463,000

Enbridge's 2014 Energy Consumption by Source Category



Source category	Gigajoules (GJ)
Fuel – stationary combustion	34,264,000
Electricity consumption	21,439,000
Total	56,463,000

Liquids Pipelines - The three-year energy consumption data for LP in Canada and the U.S. are provided below. By far, the largest component of LP's energy use is electricity, which LP uses to operate the pumps that move liquid petroleum products through its pipelines. As LP has added new projects to meet producers' needs for greater capacity and access to new markets, the electricity required to move the product has increased with the volume of product that LP delivers.

The increase in LP's natural gas fuel consumption in 2014 over 2013 reflects its increased use of the natural gas in new office buildings, although the increase was offset by the lower amount of natural gas that LP used in its line heater at our Superior Terminal. The line heater heats the products that LP ships to reduce their viscosity, thereby reducing the pumps' electricity requirements.

LP's use of other fuels for its stationary combustion equipment is higher in 2014 due to LP's use of new thermal oxidation units and to its use of diesel for temporary electricity generation at pump stations in Canada in 2013 and 2014.

LP estimates its energy consumption for mobile sources based on distances driven and, in the case of aircraft, hours flown. LP's increasing use of energy for mobile sources reflects the fact that its fleet miles driven in 2014 were higher than in previous years. The increased fleet mileage in 2014 was due to a variety of factors, including the number of active projects, increased employee numbers, and expanded geographic areas of operation.

Liquids Pipelines	2012	2013	2014
	(GJ)	(GJ)	(GJ)
Stationary Combustion Equipment – Natural Gas	107,000	284,000	289,000
Stationary Combustion Equipment – Other Fuels	52,000	128,000	323,000
Mobile Sources – Gasoline, Diesel	105,000	114,000	137,000
Electricity	14,856,000	15,476,000	19,959,000
Total – Direct Energy Consumption	15,120,000	16,003,000	20,708,000

The above data exclude the energy used by our smaller U.S. offices.

Gas Pipelines, Processing & Energy Services – Natural gas comprises the largest share of the energy that GPP&ES uses, largely because it fuels the natural gas-fired compressor drivers that GPP&ES uses to push product through its gathering lines and from offshore pipelines to GPP&ES processing and treating facilities. Other natural gas-fired equipment, such as boilers, amine units and various gas processing equipment, also contributes to GPP&ES's natural gas use volumes. In addition, the Vector natural gas pipeline, which is part of GPP&ES, operates natural gas-fired turbines to run its compressors.

GPP&ES expects year-over-year variability in its natural gas consumption, as its usage depends on many factors, including the number of gas fields it services, the gas treating energy it requires to remove carbon dioxide or hydrogen sulfide from the gas, the volumes it delivers on the Vector pipeline and its offshore systems, and the extent to which it has expanded its system.

Electricity, which GPP&ES uses for lighting, controls, motors and other applications, comprises the next largest share of the energy that GPP&ES uses.

Gas Pipelines, Processing & Energy Services	2012	2013	2014
	(GJ)	(GJ)	(GJ)
Stationary equipment – natural gas	40,646,000	37,547,000	32,698,000
Mobile sources – gasoline, diesel	605,000	507,000	451,000
Electricity	1,386,000	1,371,000	1,386,000
Total direct energy consumption	42,637,000	39,425,000	34,534,000

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al gas comprises the largest share of energy that GD uses for its natural gas distribution and underground storage operations. Natural gas fuels the reciprocating engines that drive the compressors that GD uses to inject and withdraw natural gas from underground storage facilities. It also fuels GD's line heaters, space and water heating equipment, and the majority of its fleet vehicles.

GD's energy use varies from year to year, mostly because the amount of natural gas that it needs to inject and withdraw natural gas from its underground storage facilities varies. GD's natural gas needs depend on winter temperatures, and the extent to which GD's customers need natural gas from its storage facilities to meet peak winter demand.

Gas Distribution	2012	2013	2014
	(GJ)	(GJ)	(GJ)
Stationary equipment – natural gas	523,000	725,000	934,000
Mobile sources – natural gas	47,000	49,000	57,000
Mobile sources – other fuels	97,000	93,000	96,000
Electricity	65,000	73,000	68,000
Total direct energy consumption	732,000	940,000	1,155,000

Green Power, Transmission and Emerging Technology - GPT&ET requires relatively small amounts of energy to operate its wind, solar and geothermal projects. Its decreased natural gas use in 2013 from earlier years reflects its reduced operation of the natural gas-fired fuel cell that was located at GD's Toronto, Ontario, headquarters.

Green Power, Transmission and Emerging Technology	2012	2013	2014 ¹
	(GJ)	(GJ)	(GJ)
Stationary equipment – natural gas	7,800	300	300
Stationary equipment – other fuels	400	600	600
Mobile sources – other fuels	900	1,300	1,300
Electricity	15,600	15,300	15,300
Total direct energy consumption	24,700	17,400	17,400

1. We estimated that GPT&ET's 2014 energy consumption is equal to its 2013 consumption.

Corporate - The table below provides information on the energy we use at our leased head office locations and for our corporate jet.

Corporate	2012	2013	2014
	(GJ)	(GJ)	(GJ)
Stationary equipment – natural gas	17,000	16,000	19,000
Mobile sources – other fuels	22,000	19,000	17,000
Electricity	10,000	11,000	12,000
Total direct energy consumption	49,000	47,000	48,000

Our Gas Distribution Customers' Energy Use

While we do not fully account for all of the energy that is used upstream and downstream of our operations, we do provide information on the natural gas that our GD customers use. Although their usage is significant, through its DSM efforts, GD has successfully helped them reduce it. GD's natural gas sales increased in 2014 partly because that year was colder than both 2012 and 2013. GD's natural gas sales also increased in 2013 and 2014 because GD added approximately 35,000 new customers in both those years.

	2012	2013	2014
	Natural Gas Sales (PJ)	Natural Gas Sales ¹ (PJ) ²	Natural Gas Sales ¹ (PJ) ²
Enbridge Gas Distribution (Ontario)	395.7	441.5	468.7
St. Lawrence Gas Company (New York State)	7.1	7.5	7.9
Gazifère (Quebec)	6.3	7.1	7.0
Enbridge Gas New Brunswick (New Brunswick)	3.2	6.6	6.7
Gas Distribution – total sales	412.3	462.7	490.3

¹ Natural gas sales include retail sales to customers and commercial sales to industrial and other large natural gas users.

² 1 Petajoule (PJ) = 1,000,000 Gigajoules. We have converted volume sales data (based on the annual average monthly heating values for gas deliveries) into sales data that are in PJ.

Our Efficiency Improvements and Conservation Efforts

We strive to reduce our energy consumption through efficiency improvements and conservation efforts. For example, we have reduced our energy use in our offices and buildings through our efforts to design and build new facilities to LEED standards. *For more information, please see Our GHG Emissions Reduction Initiatives in this section of the report.*

We have also introduced a variety of energy saving initiatives throughout our company, including the installation of energy-efficient lighting and motion sensors that turn off lights when inactive, and a range of recycling programs for paper, aluminum cans, toner cartridges, batteries, pens, permanent markers, highlighters and whiteboard markers.

And, we strive to build, operate and maintain our system operations to maximize energy efficiency. For example, new heater technologies and improved temperature control strategies have enabled us to reduce the energy requirements of the line heaters in GD's operations.

For more information, please see Our GHG Emissions Reduction Initiatives in this section of the report.

Disclosure on GHG Emissions and Energy Use

CDP, formerly the Carbon Disclosure Project, is an international, not-for-profit organization that provides companies and cities with a system to measure, disclose, manage and share vital environmental information. We disclose information to CDP on GHG emissions and energy use, as well as water use. *For more information, please see the Environment & Land Management section of this report.*

CDP scored and benchmarked our 2015 Climate Disclosure against companies within the energy sector globally. We received a Climate Performance Band score of "B," which corresponds to a "Management" Disclosure Level score. CDP awards the Management score level to companies that provide evidence of actions associated with good carbon management and efforts taken to mitigate risks, including making their risk assessments more robust and comprehensive, implementing a carbon policy, and integrating carbon emissions reductions into their business strategies.

The CDP Climate Change Program average (for companies that qualified for a Performance Band) was C. We were among six other energy sector companies that scored B. A total of eighteen energy sector companies received a Performance Band score.

Help Customers use Energy Wisely

We are committed to helping our gas distribution customers use energy wisely. Through a wide range of DSM offers, GD encourages customers—from homeowners to industrial facilities—to adopt energy-savings equipment and operating practices to reduce their natural gas consumption.

Some of GD's DSM activities in 2015 included:

- energy-efficiency audits of residential homes, as well as of commercial and industrial facilities,
- financial rebates and the sharing of technical expertise to encourage customers to adopt energy-saving equipment and practices,
- home energy reports that help consumers better understand their energy usage and benchmark themselves against similar customers,
- work with industry and trade associations in various sectors—such as schools, hotels and motels, construction, automotive, food and beverage, and pulp and paper—to promote DSM programs and enhance industry standards and best practices,

- design charrettes (planning sessions) that support and educate builders on higher efficiency building options before construction begins, and
- partnerships with governments, suppliers and equipment manufacturers on investments in new energy-efficient technologies that benefit ratepayers.

In 2015, GD submitted a comprehensive DSM plan to the Ontario Energy Board that would introduce a broad suite of new and enhanced offers. Its multi-year DSM plan, which runs from 2015 to 2020, commits approximately \$360 million to target well over six million cumulative cubic meters of natural gas savings, reducing customers' emissions by roughly 12 tCO₂e over the lifetime of the plan. The DSM plan represents a major step toward increased energy efficiency and reduced customer emissions in Ontario.

Cumulatively, between 1995 and the end of 2014, our DSM programs saved approximately 9.6 billion cubic meters of natural gas and reduced carbon dioxide equivalent emissions by 18 million tonnes¹. These reductions are similar to those that would be achieved by taking approximately 3.5 million cars off the road² for a year or by meeting the natural gas needs of approximately four million homes³ for a year. These reductions have created net benefits to society worth approximately \$2.5 billion. For a utility that delivers just over 11 billion cubic meters of natural gas to its customers in an average year, the savings achieved to date are significant, and do not even include the gas savings that will be achieved for decades into the future as a result of past efforts.

¹ Figures are subject to Clearance of Accounts proceeding before the Ontario Energy Board. We have assumed that 1.89 kg of CO₂e are emitted for each m³ of natural gas that is consumed.

² We have assumed that the average automobile produces 5.1 tonnes of carbon dioxide per year.

³ We have assumed that a typical residential customer uses 2,400 m³ per year of natural gas to heat his or her home and water.

Because GD is viewed as a recognized leader with regard to its success with DSM initiatives, over the past number of years it has been invited to provide advice on DSM policy and programming throughout Canada and the U.S.

RENEWABLE & ALTERNATIVE ENERGY

OVERVIEW

To meet current and future demand, the world needs energy from all sources: hydrocarbons, natural gas and renewable power. As demand for lower-carbon energy sources continues to grow, it is expected that renewable power will account for a larger share of the collective energy mix.

We are actively engaged in realizing the new business opportunities that are resulting from this transition. We are one of the largest investors in renewable power in Canada and a growing presence in the U.S. and European markets. To date, we have invested nearly \$5 billion in renewable and alternative energy projects globally and plan to double our generating capacity by 2019.

MANAGEMENT APPROACH

Our Green Power Portfolio

Since our initial investment in a wind farm in 2002, we, through our Green Power, Transmission and Emerging Technology group (GPT&ET), have invested nearly \$5 billion in wind, solar, geothermal, hydropower and waste heat recovery projects. Together these projects, including those in operation, planned or under construction, represent nearly 2,800 MW (gross) of green power capacity. This is enough to meet the electricity needs of more than one million homes. Today Enbridge is one of the largest renewable energy companies in Canada, and our portfolio of renewable energy projects is diversified and growing.

Summary of Enbridge's Renewable and Alternative Energy Investments

PROJECT	LOCATION	COMMERCIAL OPERATION DATE	GROSS GENERATING CAPACITY (GROSS MW)	OWNERSHIP BY ENBRIDGE AND SUBSIDIARIES AT DEC 31, 2015 (% INTEREST)	NET GENERATING CAPACITY BY ENBRIDGE AND SUBSIDIARIES (NET MW)	NET GENERATING CAPACITY ^{1,2} BY ENBRIDGE AT DEC 31, 2015 (NET MW)
WIND						
1. SunBridge	Gull Lake, SK	2002	11	50%	6	5
2. Magrath	Magrath, AB	2004	30	33%	10	9
3. Chin Chute	Taber, AB	2006	30	33%	10	9
4. Enbridge Ontario Wind Farm ³	Kincardine, ON	2009	190	100%	190	169
5. Talbot	Ridgetown, ON	2010	99	100%	99	88
6. Greenwich	Dorion, ON	2011	99	100%	99	88

7.	Cedar Point	Limon, CO	2011	250	100%	250	250
8.	Saint-Robert-Bellarmin	Saint-Robert-Bellarmin, QC	2012	82	50%	41	37
9.	Magic Valley	Willacy County, TX	2012	202	80%	161	161
10.	Wildcat	Madison County, IN	2012	200	80%	160	160
11.	Lac Alfred	Amqui, QC	2013	308	67.5%	208	185
12.	Massif du Sud	Chaudière-Appalache Region, QC	2013	154	80%	123	110
13.	Blackspring Ridge	Vulcan County, AB	2014	300	50%	150	134
14.	Keechi	Jack County, TX	2015	110	100%	110	110
15.	New Creek	Grant County, WV	2016	103	100%	103	103
16.	Rampion Offshore	Sussex Coast, UK	2018	400	24.9%	100	100

SOLAR

1.	Sarnia Solar	Sarnia, ON	2009-2010	80	100%	80	71
2.	Tilbury Solar	Tilbury, ON	2010	5	100%	5	4
3.	Amherstburg II Solar	Amherstburg, ON	2011	15	100%	15	13
4.	Silver State North Solar	Primm, NV	2012	50	100%	50	50

GEOTHERMAL

1.	Neal Hot Springs	Malheur County, OR	2012	23	40%	9	9
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HYDROPOWER

1.	Wasdell Falls	Washago, ON	2015	2	50%	1	1
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ALTERNATIVE

1.	NRGreen Power	Saskatchewan & Alberta	2008-2014	34	50%	17	15
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TOTAL	2,777	1,997	1,881
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¹ We report net generation to align with our financial reporting, and adjust for our company's investment in the Enbridge Income Fund. Net MWs reflect Enbridge's net interest in projects through our 89.2 percent interest in the Enbridge Income Fund.

² On September 1, Enbridge's interests in the Lac Alfred, Massif du Sud, Saint-Robert-Bellarmin and Blackspring Ridge wind farms were transferred from Enbridge Inc. to the Enbridge Income Fund.

³ The Cruickshank and Underwood wind farms combine to form the Enbridge Ontario Wind Farm.

Wind Energy

In over a decade, we have invested in more than 2,500 MW (gross) of wind power capacity, with the potential to serve more than 950,000 homes. We have interests in 16 wind farms in operation, planned or under construction. In Canada, they are located in Alberta, Saskatchewan, Ontario and Quebec; in the U.S., they are in Colorado, Indiana, Texas and West Virginia.

We sell most of the electricity that our wind farms generate to customers such as the following, under long-term power purchase agreements (PPAs) or price swap arrangements:

- Independent Electricity System Operator (IESO),
- SaskPower,
- Alberta Electric System Operator,
- Hydro-Quebec,
- Public Service Company of Colorado,
- Electric Reliability Council of Texas, and
- Pacific Gas and Electric.

These customers generally retain the renewable energy credits (RECs) that our wind projects generate.

In 2015, we entered the global offshore wind market with our acquisition of a 24.9 percent stake in the Rampion Offshore Wind Project off the UK Sussex coast.

Solar Energy

Our four solar energy facilities (three in Ontario and one in Nevada) have a total gross generation capacity of 150 MW. Our 80-MW Sarnia Solar facility near Lake Huron in Sarnia, Ontario, is one of the largest photovoltaic facilities in Canada. We sell the electricity it generates to IESO under long-term PPAs.

Geothermal Energy

We own a 40 percent interest in Neal Hot Springs, Oregon's first commercial geothermal power plant. The 23-MW facility delivers electricity to the Idaho Power grid under a long-term PPA.

Waste Heat Recovery

We have a 50 percent interest in NRGreen Power, which operates five waste heat recovery facilities along the Alliance Pipeline in Saskatchewan and Alberta. Together these projects have a total gross generation capacity of 34 MW. The power generated from the four NRGreen facilities in Saskatchewan is sold under long-term PPAs to SaskPower, while the energy produced by the Whitecourt Recovered Energy Facility in Whitecourt, Alberta, is sold into the Alberta power market on a spot basis.

Hydropower

We have a 50 percent interest in the Wasdell Falls Hydro Power Project, located near Washago on Ontario's Severn River. Developed with the support of Natural Resources Canada, the project has involved retrofitting an existing dam with new very low head-type turbines that minimize infrastructure costs and reduce environmental impacts. The turbines are the first of their kind in Canada and have been developed especially for small waterfalls. The 2-MW project began commercial operation in December 2015.

Environmental and Social Benefits of our Green Power Projects

We are contributing to a global shift toward a lower-impact energy production mix by investing in green power projects that complement our core business while limiting GHG emissions. Each of our renewable and alternative energy projects provides environmental benefits:

- Our wind farms provide a source of clean energy, helping to diminish acid rain, smog and the GHGs that contribute to climate change.
- Our solar facilities generate electricity with no emissions, no waste production and no water use.
- Our geothermal facility is a zero-emission project that uses heat from the Earth to produce power.
- Our waste recovery projects generate emissions-free electricity by harnessing the exhaust heat produced by gas turbines at compressor stations.

By investing in green power projects, we not only contribute to clean energy, we help to grow the economy through employment, property taxes and lease payments to landowners. We also give back to local organizations through our community investments, which support programs and agencies that improve quality of life for the communities where we operate.

Our approach to green power development has earned industry recognition. In 2015, the Canadian Wind Energy Association (CanWEA) presented our Blackspring Ridge wind farm in Alberta with a Project-of-the-Year Award for demonstrating exceptional commitment to responsible and sustainable development through initial development, community engagement, permitting and construction. Blackspring Ridge is the second facility in our wind power portfolio to receive this award, as CanWEA presented it to the Lac Alfred wind farm in Quebec in 2013.

Our Investment Approach to Green Power

Our strategy to grow our renewable and alternative energy business is consistent with our objectives to provide reliable energy sources and to develop new platforms that extend and diversify earnings growth. Our green power investments align with our existing business model that focuses on generating solid returns with stable and strong cash flows.

In most cases, our renewable and alternative energy projects are underpinned by attractive long-term PPAs and price swap arrangements that will deliver stable cash flows and attractive returns similar to those realized by our liquids and gas transportation businesses. We sell all of the electricity generated by our projects to large customers or independent system operators. Many of our customers that have purchased power from our projects acquire the associated environmental benefits, including GHG offsets. In addition, renewable energy credits (RECs) generated by some of our wind projects are sold through long-term price-swap contracts.

We are continuing to expand our interests in green power, with the goal to double our renewable generation capacity by 2019. To grow our business, we are targeting projects that:

- provide attractive returns to investors and significant environmental benefits,
- provide opportunities for long-term pricing or price swap arrangements,

- offer a high-quality energy resource and access to transmission,
- demonstrate high standards of safety and community engagement during construction and operation,
- provide growth or expansion opportunities,
- incorporate the latest proven technologies, and
- enable us to build collaborative relationships with proven developers and suppliers.

To date, we have focused on taking investment stakes in late-stage green power projects built and operated mostly by third parties. Our goal is to move toward a more integrated model, allowing us to take on a greater role in key decisions including offtake and REC sales agreements. As we continue to grow our well-established renewable energy business and build upon the project execution expertise that we are known for, participating in earlier stages of development allows us to become even more competitive in the renewable energy market. To put this strategy into action, in late 2015 we acquired the 103-MW New Creek Wind Project, an early stage development project. As we continue to integrate our renewable energy business, we will look to taking full operational responsibility of our operating renewable facilities, as their current contracts with key service providers expire and the associated economics make sense.

STRATEGIC PRIORITY

- **Continue to grow our renewable energy platform with the goal to double generation capacity by 2019.**

2015 PERFORMANCE

KEY FACTS

Together our renewable and alternative energy projects represent **nearly 2,800 megawatts** (gross) of green power generation capacity. Of this total, we own about 1,900 megawatts (MW) of net generating capacity. We plan to double this capacity by 2019.

Based on gross generation figures, our portfolio of green power projects has the potential to meet the electricity needs of more than **one million homes**.

Since 2002, we have spent **nearly \$5 billion** to grow our green power generation portfolio. Of this total, we have invested about \$2.2 billion (or 40 percent) in the last three years.

Grow our Renewable Energy Platform

In 2015, we invested approximately \$500 million in our renewable energy portfolio. We consider government incentives when investing in renewable energy projects. Several programs in Canada, the U.S. and the UK have provided us with the ability to meet investment criteria, including the Modified Accelerated Cost Recovery System (MACRS), the renewable energy Production Tax Credit (PTC) and Renewable Obligation Certificates (ROCs).

Transition to Operational Self-Performance

As certain contracts with key service providers begin to expire, we will hire industry professionals and develop rigorous procedures for safely operating and maintaining our wind project assets ourselves. This step will help us to transition our business to operational self-performance, which will involve scheduled and unscheduled inspections, repairs and maintenance of wind turbines, monitoring performance of wind turbines and managing balance-of-plant infrastructure, including electrical inspections, testing and repairs. This step will also increase our familiarity with the assets and provide greater opportunities for optimizing financial performance.

Investments in Wind Energy

Wind energy is the fastest-growing electricity source in the world, as substantial technological advances, cost reductions, government incentives and policies, renewable portfolio standards and the availability of long-term PPAs have enabled wind projects to become economically attractive investments. In 2015, we continued to acquire new wind power capacity through the following:

Entry into the European Offshore Wind Market - In November 2015, we announced the acquisition of a 24.9 percent stake in the 400-MW Rampion Offshore Wind Farm in the UK.

Given our well-established renewable energy business and growing efficiency in wind power technology, the Rampion project is a timely and effective entry point for us, as it further develops our expertise in the business and supports our objective of developing new platforms that extend and diversify our industry-leading growth. Our \$750-million commitment represents our first venture into the offshore renewable energy market and our first move into power generation outside Canada and the U.S.

Located 13 kilometers (eight miles) south of Brighton in the English Channel, the project is being developed and built by E.ON Climate & Renewables UK Limited, a subsidiary of E.ON SE. The project is backed by revenues from the UK's fixed-price ROCs program and a 15-year PPA. Consisting of 116 Vestas turbines producing 3.45 MW each, construction of the wind farm began in September 2015. The facility is expected to be fully operational in 2018.

Investment in New Creek Wind Project - In November 2015, we added to our existing U.S. wind energy portfolio, with the acquisition of a 100 percent interest in the 103-MW New Creek wind project in Grant County, West Virginia. Our total commitment is approximately US\$200 million. With the addition of this facility, we now own five wind assets in the U.S. with a combined generating capacity of nearly 900 MW (gross).

The project provides an attractive opportunity for us to move into earlier-stage development, allowing our company to play a larger role earlier in the process, and increasing our competitiveness in the renewable energy market. Ownership in the project provides access to the PJM power market, which serves electricity consumers in the east-central U.S., and which is one of the world's largest competitive wholesale electricity markets.

New Creek will consist of 49 turbines and is targeted to be in service in December 2016. The project, which is backed by RECs and offtake agreements with fixed pricing through mid- and long-term contracts, was developed by EverPower Wind Holdings, an independent U.S. renewable energy developer.

ENVIRONMENT & LAND MANAGEMENT

OVERVIEW

Our purpose is to connect people with the energy they need and want. In meeting that purpose, our goal is to ensure that our assets meet the highest environmental standards.

MANAGEMENT APPROACH

We use leading construction practices, and are committed to identifying, mitigating and proactively managing potential construction project impacts on the environment. We pay close attention to environmentally sensitive areas and species-at-risk habitat, and recognize that effective biodiversity conservation and management of land, water, waste and air emissions are among the keys to a sustainable environment.

While we are required to meet all relevant environmental regulations within our operational jurisdictions, we also comply with our own long-standing corporate policies and objectives in order to achieve sound environmental management during both construction and operation of our energy delivery assets.

This approach includes ongoing engagement with, and responsiveness to, a range of external stakeholders to ensure our processes remain at the forefront of best industry practices. In addition, through our community investment program we support initiatives that promote environmental stewardship, conservation, habitat remediation and environmental education. *For more information, please see the Community Investment section of this report.*

Principles, Policies, Guidelines and Systems

We have established the following enterprise-wide and business segment-specific principles, policies, guidelines and systems to ensure that we meet the highest environmental standards:

Enterprise-wide:

- Core values: Integrity, Safety and Respect,
- Statement on Business Conduct,
- Operational Risk Management (ORM) program (which includes pipeline integrity management, leak detection and control systems, damage avoidance and detection, occupational safety, public safety and environmental protection, and incident response),
- Enterprise Risk Management (ERM) Framework,
- Safety Management System Framework,
- Corporate Social Responsibility Policy, and
- Climate Policy.

Business Segment-specific:

- safety and environmental guidelines for contractors,
- environmental guidelines for construction,
- environmental policies,
- emergency management system, and
- Integrated Management and Environmental Management Systems (see below).

These principles, policies, guidelines and systems inform our ongoing efforts to enhance our environmental performance. Our employees, contractors and consultants are expected to recognize and mitigate the impact of their daily activities on the environment. We also partner with key stakeholders to ensure environmentally friendly technologies are adopted and broadly implemented.

For more information, please see Drive Safety & Operational Reliability in the Strategy & Priorities section of this report, and the Risk Management section of this report.

Integrated Management and Environmental Management Systems

Our Liquid Pipelines business segment (LP) and Major Projects business unit (MP) continue to develop a comprehensive Integrated Management System (IMS), which sets out a governance framework that integrates and documents organizational structure, resources, accountabilities, policies and processes. The IMS encompasses several individual management systems, one of which is the Environmental Management System (EMS). The EMS is based on the criteria established by the ISO 14001 to ensure it includes all the appropriate elements.

Elements of LP's and MP's EMS include:

- explicit governance structures, with accountability to the executive team and/or the Board of Directors,
- identification of products, activities and services that have significant impacts on the environment,
- compliance with environmental regulations,
- objectives, targets and deadlines,
- environmental programs,
- assigned roles and responsibilities,
- environmental training and awareness programs for employees,
- internal and external communication on environmental management issues,
- monitoring and measurement,
- environmental performance records,
- external and internal environmental reviews, and
- corrective actions to stimulate continual improvement.

A key feature of the overall LP and MP IMS is the governing processes, which include the high-level accountabilities for and components of risk, safety management and strategy, including the EMS. Within the IMS is a detailed Assurance Process that outlines the governance related to internal/external audits, internal reviews and self-assessments. It also includes other assurance processes, such as Corrective Action Plans, Event Investigations and Management Reviews, each of which apply to the individual management systems and programs.

Enbridge's Gas Distribution business segment (GD) has also developed a comprehensive Integrated Management System (Int-MS), which sets out a governance framework that integrates and documents core processes, resources, policies, and organizational structures. GD's Int-MS encompasses six individual management programs, one of which is the Environmental Management Program. This program is based on a requirements list, which was developed using Enbridge's Safety Management System Framework, ISO 14001, and multiple other corporate and regulatory requirements to ensure all appropriate elements are included.

GD's Environmental Management Program provides the governance and direction for GD's activities to be conducted in an environmentally sound manner, where the following is achieved:

- environmental aspects are identified, and resulting risk evaluated on a continual basis,
- operational controls, inspection and monitoring programs are developed and implemented to address environmental concerns,

- environmental management and performance is continually evaluated and improved,
- management commitment and leadership, and a high level of employee participation,
- measurement, monitoring and reporting on environmental performance and metrics,
- compliance with all applicable company requirements and environmental regulations, including obtaining all necessary environmental permits, and
- the potential for adverse environmental effects is prevented, mitigated and/or minimized.

We have also implemented a number of programs and objectives intended to reduce the environmental impact of projects and operations. These include:

- using environmentally sound construction techniques,
- avoiding impacts on sensitive habitats,
- implementing rigorous preventive maintenance programs (e.g. pipeline integrity digs) with the target of zero releases,
- pursuing and supporting technology research,
- developing comprehensive spill response and environmental mitigation plans in the unlikely event of a release,
- contributing to the development of national pipeline safety standards and industry-recommended practices,
- designing facilities to ensure air emissions from our operations are below regulated limits,
- meeting or exceeding all regulatory requirements pertaining to water withdrawal and disposal, and
- helping our GD customers adopt energy-savings equipment and operating practices to reduce natural gas consumption.

Environmental Protection Expenditures and Investments

We spend millions of dollars each year on activities associated with environmental protection and management. We perform most of these activities—environmental impact assessments, and emissions monitoring, management and reporting, for example—to comply with regulatory requirements. We perform some of these activities—habitat conservation, for example—voluntarily.

A partial list of the environmental protection and management activities that we undertake is as follows:

- aquatic assessments,
- contaminated site management,
- emissions monitoring, management and reporting,
- environmental health checks and internal reviews,
- environmental surveys,
- environmental planning and performance management,
- environmental training for staff and contractors,
- groundwater monitoring,
- habitat conservation and mitigation,
- risk identification and assessment,
- site containment and drainage,
- sponsorship of environmental organizations,
- tree planting, and
- waste management (waste handling and disposal).

We do not currently have the processes in place to track the exact amounts of our expenditures and investments in these areas.

STRATEGIC PRIORITY

- **Improve our performance—and our metrics-setting and tracking processes—regarding biodiversity conservation and land management, water use and management, waste management, and air emissions management.**

2015 PERFORMANCE

KEY FACTS

Although we do not use water to transport liquid hydrocarbons or natural gas, **we periodically require large volumes of water to hydrostatically test the integrity of our new or existing pipelines and storage tanks.**

In 2015, **our Chief Sustainability Officer met with individuals and organizations in Canada and the U.S. who are active on water issues** to better understand their perspectives on the water risks associated with our projects and operations, and to identify opportunities for joint projects or partnerships that could help advance new approaches to water protection in areas in which we operate.

Before we construct a pipeline, we survey its entire route to identify wetlands, water bodies and sensitive plant and wildlife. We use the survey information to develop Environmental Protection Plans that help us mitigate our environmental impact.

Biodiversity Conservation and Land Management

It is important for us and for others that we protect and conserve environmentally sensitive areas and areas of high biodiversity, and we recognize that we must prioritize these activities in our project planning, construction and operations.

Project Planning, Construction and Operation

Canadian and U.S. regulations require us to submit detailed environmental and socio-economic impact assessments before we construct energy-related projects. These plans inform our consultations with regulators, landowners, and Aboriginal and Native American and right-of-way communities throughout the life cycle of our projects.

We also consider options to avoid and mitigate environmental impacts in our project planning phase, and incorporate these options into project-specific Environmental Protection Plans (EPPs).

Actions we take to eliminate or minimize the short- and long-term impacts of construction and operations of our pipeline infrastructure can include:

- minimizing the pipeline length to the extent practicable so as to minimize its environmental impacts, and whenever possible, installing pipelines within existing rights-of-way,

- analyzing various routing alternatives to determine whether they would avoid, minimize or mitigate our impacts to natural resources, including environmentally sensitive areas,
- narrowing the right-of-way to minimize the impact on sensitive plant species and avoid or minimize conflicts with existing or proposed residential and agricultural lands,
- avoiding construction activities during certain times of the year (e.g. to avoid fish spawning season),
- avoiding disturbance to sensitive wetland areas, and
- designing water crossings to minimize impacts to rivers and streams.

We evaluate wetlands and watercourse crossings on a case-by-case basis to minimize construction impacts, but when we must cross them, we use a variety of measures to minimize and mitigate our impacts and endeavor to restore impacted areas to as close to their original conditions as possible.

We also incorporate environmentally sound construction procedures into all of our projects, and provide related training and guidelines to employees and contractors.

Once a project is under construction, regulators may conduct inspections and audits to verify our compliance with proposed mitigation strategies and to provide feedback on our activities. We address any findings from regulators through corrective action plans that our project teams implement. As needed, we also re-evaluate risks to habitat to ensure that our EPPs are still appropriate, or need to be modified to reflect changing conditions

In joint-venture projects where environmental responsibilities fall under our scope, we share any environmental management strategies with our partners.

After a project has been constructed, we may be required to submit an As-Built Report and Post-Construction Monitoring Report to regulators. Once we have submitted these reports, the regulator makes these documents available to the public through its website.

Beyond the regulatory framework for environmental assessment and monitoring, we also support biodiversity conservation projects with local communities and conservation organizations. *For more information, please see the Community Investment section of this report.*

Although there are currently no standard biodiversity metrics at an industry or regulatory level in Canada or the U.S, there is an established trend at both the regulatory or voluntary level toward using biodiversity or conservation offsets. To that end, we are active in a number of communities of practice at the local, regional and global levels that are engaged in developing appropriate methodologies and tools. These include the Alberta Association for Conservation Offsets, The Natural Step Canada, and the International Institute for Sustainable Development.

Protecting Sensitive Habitats and Species at Risk

All of our business segments comply with federal, provincial and state requirements. In Canada, these requirements include the federal Species at Risk Act (SARA), which aims to protect flora and fauna and conserve biological diversity.

Liquids Pipelines – Using digital mapping technology, LP has mapped its Canadian system to identify areas along its rights-of-way where there may be species-at-risk habitat. LP now regularly updates its maps to ensure that it is working with the most accurate and effective data.

Before we construct a pipeline, we survey its entire route to identify wetlands, water bodies and sensitive plant and wildlife. We use the survey results to develop Environmental Protection Plans that help us determine areas that will require alternative construction techniques, timing restrictions (i.e., to minimize impacts during breeding or spawning seasons for certain sensitive species), or route variations (to minimize or avoid impacts to sensitive plant species).

The plans, which include site-specific procedures around maintenance and operational activities, also help us minimize our impacts on sensitive species when we must traverse their habitat. For example, we have put such plans in place to protect boreal caribou populations in the Northwest Territories and Alberta, the Karner blue butterfly in Wisconsin, and Redside Dace (an endangered species of ray-finned fish) in Ontario.

Regulators also apply stringent conditions to our mitigation efforts when we must traverse certain sensitive habitats or protected areas. For example, in the U.S., regulators have mandated how we maintain our rights-of-way for pipelines that traverse National Forests.

Some of our pipelines are located in lakes, beneath navigable waterways or within areas of high biodiversity. For those areas, we may develop site-specific inspection or maintenance procedures to ensure that we comply with all regulations.

Gas Distribution – GD historically has not had a significant impact on environmentally sensitive areas or areas of high biodiversity. The majority of GD's pipelines are installed in urban environments within existing road rights-of-way in previously disturbed soil. By their nature, these areas are not typically areas of high biodiversity.

However, occasionally, a specific localized area may be identified as being environmentally sensitive, due to a wetland or watercourse, or a species at risk, in which case GD implements environmental screening or environmental assessments (depending on the project scope) to identify any features or species that may be impacted by construction or maintenance activities.

If identified, GD then consults with applicable regulatory agencies and implements all required mitigation measures prior to and during construction or maintenance activities. Mitigation can include such measures as using directional drilling instead of open cutting, and sediment and erosion control. GD restores any areas it has temporarily disturbed through pipeline construction and maintenance in accordance with regulatory requirements.

With regard to protected areas, GD has an easement on the western edge of Springwater Provincial Park near Midhurst, Ontario. GD's franchise area in Ontario also includes the Niagara Escarpment and the Oak Ridges Moraine, but utility facilities are permitted within these protected areas. Species at risk that GD has identified in past projects include Redside Dace, Butternut trees, Eastern Meadowlark, Bobolink and Blanding's Turtle.

Green Power, Transmission and Emerging Technology – GPT&ET takes multiple measures to protect and minimize impacts on species at risk during both construction and operation at its facilities. Some of these measures include restricting activity during key times, curtailing operations, establishing set-back distances from sensitive habitats, erecting physical barriers, and implementing wildlife deterrent strategies and habitat restoration. As a result of these measures, GPT&ET has witnessed a reduction and prevention of negative impacts, including on bird and bat mortalities. The exact number of species at risk in its operating areas across Canada and the U.S. is not well known, by and large due to a lack of scientific consensus and baseline population numbers. However, species at risk that we have encountered at GPT&ET sites include little brown myotis and northern myotis (bat species), eastern small-footed bats, golden eagles, bald eagles, ferruginous hawks, burrowing owls, bobolinks, barn swallows, bank swallows and desert tortoises.

The results of wildlife monitoring in areas where our wind turbines and transmission lines operate indicate that some bird and bat mortalities occur annually, which has an impact on biodiversity in these areas. In response, we have reduced impacts by putting mitigation and deterrents in place. For example:

- At our Talbot, Underwood, Cruickshank and Greenwich wind farms in Ontario, we curtail the operation of select wind turbines during peak activity season for bats. At night, when bats are most likely to be impacted by turbine blades, we stop the selected wind turbines at wind speeds of 5.5 meters per second (m/s) or less. Over time, we have seen a significant reduction in overall bat mortalities at these sites due to this action.

- In 2014, we installed bird diverters on our Montana-Alberta Tie Line to make the power transmission line more visible to birds so as to avoid collisions. We have seen the number of waterfowl collisions decrease since we installed diverters. Additionally, we impose restrictions on activities and access during sensitive times for wildlife, such as nesting and lekking periods, to reduce stress and potential impacts.
- In Colorado, we have put in place a bird and bat conservation strategy to minimize the potential impacts to raptor populations, including a local nesting pair of golden eagles.

For more information on GPT&ET efforts to mitigate wildlife impacts, please see Impact Mitigation in this section of the report.

Vegetation Management and Restoration

When managing vegetation at our facilities and on our pipeline rights-of-way, we use the most appropriate methods of keeping them clear for inspection. In conducting this work, we take into account the visible results and perceived impacts on landowners and communities. Our weed control and re-vegetation activities are designed to stop the encroachment of invasive species, mitigate erosion issues and enhance biodiversity.

Some of our recent initiatives related to vegetation management and restoration include the following:

- In 2015, LP updated its Vegetation Management Minimum Guide, which outlines the minimum requirements it must meet to ensure environmental compliance, as well as best practices in weed and vegetation control techniques.
- Post-construction activities at our Blackspring Ridge wind farm in Alberta included seeding of native prairie. Since 2014 (one year post-construction), we had re-established a quarter of the proposed native prairie areas across the entire wind farm.
- From 2015 to 2020, we will invest \$100,000 in Return the Landscape, a native plant rescue and restoration organization, such that it can restore habitat on a 200-acre parcel of land on the site of our 1,100-acre Sarnia Solar facility in Sarnia, Ontario. *For more information, please see the Stakeholder Engagement section of this report.*

Protecting Soils and Waterways

Our core business is to safely and reliably transport oil and gas through a network of pipelines, and we are working constantly to improve the methods we use to prevent and detect leaks and releases.

An important focus area for us is protecting the environmental integrity of soils and waterways in and around our projects and operations.

Project Construction and Operation – We carefully select our pipeline routes and line locations and maintain world-class standards for engineering and design, including special considerations for areas such as road, rail, river and creek crossings. We take the same rigorous approach with facilities such as stations, terminals and plants.

In many cases, we use horizontal directional drilling when crossing beneath watercourses and, before doing so, always obtain permits from the required authorities and government agencies. We further maintain pipeline integrity through regular inspections of bridge and watercourse crossings.

Our liquids pipelines system crosses numerous rivers and widely varying terrain. To protect the integrity of this vast continental system, we closely monitor geohazards (environmental forces such as floods, soil erosion, seismic activity and slope movement). *For more information, please see Maintaining the Fitness of Our Systems and Leak Detection section of this report.*

We provide project planning staff with environmental awareness training on how to identify watercourses and wetlands to ensure that we identify and protect them during the planning process. We also train field employees on the importance of protecting watercourses during our pipeline construction and maintenance activities. This training includes proper sediment erosion control methodology, along with effective spill response and notification.

In areas where we have conducted pipeline integrity digs, we have a post-reclamation monitoring program to ensure that we restore all of these sites to their pre-excavation condition, as determined by third-party environmental inspectors.

Assessing Water Risks – LP regularly assesses the risk to waterways should we experience a crude oil leak. Its assessments include identifying impacted waterways, determining the distance the crude oil could migrate downstream and mapping municipal water supply intakes. Based on the results of these assessments, we work with municipalities to develop contingency plans. We also install additional valves to limit the volume of crude oil that could be released in the event of an incident.

We assess operational water risks—such as fisheries habitats, aquatic species at risk, wetlands habitat, and surface and ground water impacts—on a project-by-project basis through the environmental assessment or screening processes that we must undergo before we can construct or maintain existing pipelines or related infrastructure. These risk assessments are typically part of the regulatory process we are required to undergo in advance of obtaining a “Leave to Construct,” and are usually conducted by third-party environmental consultants.

Sometimes we are also required to conduct hydrogeological and hydrologic risk assessments as part of pre-construction permitting and approval process. These assessments give us information on shallow geological conditions, groundwater chemistry and the potential for other impacts along with proposed mitigation measures.

Before GD can install natural gas distribution services on private property, we must consult with the landowner/customer to ensure that we thoroughly identify and mitigate any risks to the local water quality and quantity prior to construction.

Through bill inserts and its public website, GD also provides its customers with information on the safety risks associated with flooded or snow-covered above-ground pipeline distribution infrastructure such as meter sets.

Being Prepared for Emergencies – We have comprehensive crisis management and emergency response plans in place to help us respond rapidly anywhere, should a spill or emergency occur, including on water. We also continually train our employees and contractors, and provide training to first responders in our areas of operation throughout Canada and the U.S. to help prepare them for a spill or emergency in the event that one should occur. The training involves staging drills, emergency exercises and equipment deployments each year so that we can test and refine our response plans and have the shared knowledge and experience to respond to any incident. *For more information, please see the Emergency Preparedness & Response section of this website.*

Working with Regulators, Conservation Authorities and Local Water Utilities – We engage with regulators on water management issues through a number of industry associations, including the Canadian Energy Pipeline Association (CEPA), the Canadian Gas Association (CGA) and the Alberta Association for Conservation Offsets (AACO), which deals with wetlands. We also maintain direct contact with regulators at various jurisdictional levels to facilitate discussions on specific projects or concerns. We take a proactive approach with regulators by communicating directly with them on project specifics to identify regulatory requirements.

We routinely contact river basin management authorities or conservation authorities (CAs) to identify local water management concerns and regulatory requirements. For example, given that our GD business segment primarily serves urban centers, we communicate regularly with local CAs, such as the Toronto and Region Conservation Authority and the Credit Valley Conservation Authority about our construction and maintenance activities.

We contact local water utilities during the project planning process to identify buried infrastructure and to coordinate long-term infrastructure expansion plans to avoid future conflicts. We also contact them to identify the location of municipal water intakes as part of our risk assessment and mitigation process, and to develop and implement emergency response plans.

Engaging with Special Interest Groups – We consult with special interest groups on a project-by-project basis as part of the stakeholder consultation process related to a project.

These groups may also include industry associations such as CEPA, which works to define and implement best practices that improve industry performance in environmental management, including watershed protection. For example, to better understand the behavior and environmental impacts of a broad range of crude oil types in water, CEPA, on behalf of industry and alongside other industry associations, co-sponsored a North American-focused, independent, science-based study conducted by an expert panel of the Royal Society of Canada. The results of the study, which were released in the fall of 2015, will assist industry with future environmental risk assessments and help inform and improve our industry's spill preparedness and response capabilities.

Stakeholder Engagement – We engage with stakeholders at a local level to provide awareness around our programs to maintain the fitness and reliability of our systems, and to address concerns about the potential impacts of spills to water quality or quantity. *For more information, please see the Stakeholder Engagement section of this report.*

GD undertakes water-well monitoring programs for construction projects that are in proximity to residential wells. It collects water samples before and after construction, and analyzes them to verify water quality. It then promptly deals with any discrepancies between the water quality data resulting from construction.

We also communicate the importance of watershed management and protection to local communities along our pipeline rights-of-way through the support of local environmental initiatives and projects to restore and enhance habitat along streams, rivers and wetlands. Community investment at the local level demonstrates our commitment to sound environmental stewardship. *For more information, please see the Stakeholder Engagement section of this report.*

Neutral Footprint Commitments

Through our Neutral Footprint commitments, we pledged to reduce the environmental impact of our liquids pipelines expansion projects within five years of their occurrence by:

- planting a tree for every tree we removed,
- conserving an acre/hectare of natural habitat for every acre we permanently altered, and
- generating a kilowatt hour of renewable energy for every additional kilowatt hour of conventional electricity that our Liquids Pipelines business segment (LP) used in its operations above 2008 levels.

We have met these commitments since we first made them in 2009. After consulting with internal and external stakeholders regarding the future of the commitments, in 2015, we began developing a new generation of environmental commitments that better reflect our changing business needs and the expectations of our local stakeholders.

In 2016 we will update our commitments to reducing our environmental footprint to reflect an increased focus on improving our performance regarding GHG reduction, water protection, waste reduction, land and species conservation, and new projects and partnerships that respond to local environmental priorities.

Water Use and Management

Across all of our operations, we strive to meet or exceed all regulatory requirements, including those pertaining to water use and management.

Engaging on Water Management and Protection Issues

In 2015, our Chief Sustainability Officer (CSO) met with individuals and organizations in Canada and the U.S. who are active on water issues, including environmental groups, Aboriginal and Native American individuals and groups, state agencies, regulators, industry associations, local watershed group and international research groups. Her purpose was to ensure that we understand their perspectives on the water risks associated with our projects and operations. She also sought to explore opportunities for joint initiatives that could help advance new approaches to water protection in areas in which we operate.

In 2016 we are exploring opportunities in Saskatchewan and Minnesota for innovation projects on water protection. *For more information, please see the Significant Sustainability Challenges & How We Are Responding section of this report.*

Water Withdrawal and Disposal

Across all of our operations, we strive to meet or exceed all regulatory requirements, including those pertaining to water withdrawal and disposal. We are currently assessing ways to enhance our collection of data on water usage with a view to developing a standardized process for tracking our performance in this area.

Hydrostatic Testing – Although we do not use water to transport liquid hydrocarbons or natural gas, we periodically require large volumes of water to hydrostatically test the integrity of our new or existing pipelines and storage tanks.

Hydrostatic testing of pipelines involves filling a segment of a pipeline with potable water from an approved municipal water source—generally withdrawn locally from the environment or from municipal sources, or delivered on-site by a third-party water supplier—and carefully raising the operating pressure on the segment for a prescribed period while continuously monitoring it to confirm its integrity. When we conduct these tests, we follow company policy and regulatory standards.

The total volume of water that we ultimately consume through hydrostatic testing is relatively small because we return almost all of it to the environment.

We analyze and treat the test water that we return to the environment, as all of it must meet the discharge criteria that relevant regulatory agencies establish. Typically we only need to filter the particulate matter from the water that we have used to hydrostatically test new pipelines.

We also engage specialized waste disposers to remove any water that is not found to be suitable for discharge to the environment, and to dispose of it in accordance with applicable regulations.

In some instances, regulators require water quality information before we can discharge it or before a waste disposal facility will accept it. For example, provincial and federal regulations require that MP in Canada tests all of the water it uses before it discharges it.

Our operations and engineering departments measure and track the water we use for hydrostatic testing for the majority of our larger projects at more than 50 percent of our operational locations. They track water by the following categories: total volumes withdrawn and discharged; destination of discharged water; and volume by treatment method.

In 2015:

- MP in Canada used approximately 239 megaliters of water to hydrostatically test new pipelines. It used approximately 389 megaliters in 2014 and 195 megaliters in 2013. Fewer new projects reached completion in 2015 than in 2014, hence the year-over-year decrease.
- MP in Canada returned approximately 239 megaliters of the water it used for hydrostatic testing to the environment, and did not dispose of any water through waste disposers. In 2014, it returned approximately 387.5 megaliters of the water it used, and disposed of 1.5 megaliters. In 2013, it returned approximately 192 megaliters, and disposed of three megaliters. Before returning water to the environment, MP verifies that it is free of contaminants. MP conducts this work in a manner that complies with all appropriate regulatory jurisdictions.
- MP in the U.S. used approximately 321 megaliters of water to hydrostatically test new pipelines. It used approximately 711 megaliters in 2014 and 747 megaliters in 2013. MP in the U.S. returns all of the water it uses to the environment, either directly or through waste disposers.
- LP Canada used approximately 96 megaliters of water from municipal, industrial or natural sources for hydrostatic testing, compared with an estimated 17 megaliters in 2014 and an estimated 1.5 megaliters in 2013.
- LP in Canada returned approximately 96 megaliters to the environment or to the original industrial source, compared with approximately 16.8 megaliters—or 97 percent—in 2014.
- LP U.S. used approximately 102 megaliters of water from municipal and natural sources for hydrostatic testing in 2015. In 2014, LP U.S. did not conduct any hydrostatic testing. In 2013, LP U.S. used approximately 110.9 megaliters of water from municipal or natural sources for hydrostatic testing.
- In 2015, LP U.S. returned approximately 103 megaliters to the environment, after having met all necessary water quality criteria. (The discrepancy between the water that LP U.S. withdrew in 2015 and the water it returned is due to the fact that it used different measuring and metering methodologies for the two years.) In 2013, it returned approximately 110.5 megaliters to the environment. It disposed of the remainder through waste disposers.
- GD used approximately 0.3 megaliters of municipally treated water to hydrostatically test new pipelines in 2015, compared with 5.6 megaliters in 2014 and 5.9 megaliters in 2013.
- GPP&ES used approximately 4.4 megaliters of water from municipal or natural sources for hydrostatic testing in 2015, compared with approximately 2.5 megaliters in 2014.

Groundwater

Liquids Pipelines - In 2015, LP continued its system-wide groundwater monitoring program, under which it regularly monitors its facilities to identify potential impacts to groundwater and to maintain compliance with regulatory requirements where they exist. LP conducted site investigations at several stations in 2015 where it had previously noted groundwater impacts.

LP also continued its efforts to manage groundwater contamination associated with our Hardisty Caverns. Prior to our acquisition of the facility, the clay liner used to contain the brine in cavern operations had leaked. However, LP now operates a groundwater recovery well system to extract the contaminated groundwater either for reuse in the brine pond as makeup water, or for disposal in an on-site disposal well. The recovery wells serve two purposes. They slowly clean the groundwater by removing the contaminated water. And they hydraulically contain the site, stopping further migration of the brine contamination. In 2015, LP connected five additional recovery wells to the system and upgraded the system to handle greater water volumes. It also conducted further environmental site assessments in 2015 to assist the ongoing remediation work.

In 2015, LP conducted pilot-scale testing of a surfactant injection and multi-phase extraction groundwater remedial system at its Bronte Junction site near Oakville, Ontario. The system is designed to treat groundwater contamination

identified in shallow, fractured bedrock. Subject to stakeholder consultation, LP will initiate full-scale operations in 2016.

As part of its contaminated site management program, LP continued to operate an air-sparging system at the site of a February 2007 third-party pipeline strike near Exeland, Wisconsin. LP also installed a bioventing (air-sparging in the unsaturated zone) system in late 2014 at South Cass Lake, Minnesota pumping station and 2015 was the first full year of operation. Both of these systems are treating residual hydrocarbons and directly reducing groundwater impacts.

Throughout 2015, LP continued operating belt skimmers at our North Cass Lake, Minnesota, pumping station to recover free product that LP had discovered in 2010 and that was the result of a leaking flange. As a result of its recovery efforts, LP has maintained a stable groundwater contamination plume, and has protected two nearby residential potable wells and the on-site well.

For LP Canada and LP U.S., storm water makes up the majority of the facility water releases. LP discharges this water into the environment in a controlled manner and does not significantly impact any water bodies.

Gas Distribution; Gas Pipelines, Processing & Energy Services; and Green Power, Transmission & Emerging Technology – GD, GPP&ES and GPT&ET do not significantly affect any water bodies or related habitats by discharging water or runoff. In addition, GD and GPP&ES only use closed loop water-related processes that result in minimal water loss.

Rainwater Harvesting

GD has incorporated fixtures and devices that reduce its water requirements in newly designed office buildings. GD's Technology and Operations Centre (TOC) building in Markham, Ontario, captures rainwater from the roof and reuses it for landscape irrigation and cooling-tower requirements. The TOC's innovative streetscape training center, which simulates an urban community, also captures and retains rain water through a system of pervious pavers.

Water Disclosure

CDP, formerly the Carbon Disclosure Project, is an international, not-for-profit organization that provides companies and cities with a system to measure, disclose, manage and share vital environmental information.

We disclose information to CDP on GHG emissions, energy use and water use.

CDP scored and benchmarked our 2015 Water Response against companies within the energy sector globally.

We received a water score of "B", which corresponds to a "Management" score level. The Management score level is awarded to a company that provides evidence of actions associated with good water management and the efforts taken to mitigate risks, making its risk assessments more robust and comprehensive, implementing a water policy, and integrating water issues into its business strategy.

The average CDP/Energy/Industry/Water Global 500 score was B-. We were among seven other energy sector companies that scored B, which was the highest score for the sector. The overall response rate for the energy sector for the CDP water disclosure was 22 percent, i.e. 23 companies out of 106 companies requested.

Waste Management

Our waste comprises recyclable materials such as paper, scrap metals, packaging materials and construction-related materials, as well as non-hazardous substances such as spent abrasive blast media, oily sorbents and soil.

We make every effort to reduce and minimize our waste volumes through measurement and management programs at our various facilities. We also try to find beneficial ways to reuse or recycle waste by-products. For example, GPP&ES recycles used lube oil from its compressor engines, spent activated carbon catalyst used in gas treatment, and spent catalytic converter catalyst used to control compressor emissions.

In Ontario, GD recovers and recycles waste polyethylene pipe, metal, tires, wood, electronic waste and furniture. And, all of the GD offices have a green bin program for collecting waste organic materials. GD's waste diversion rate for municipal waste was 54.6 percent in 2015, compared with 59.4 percent in 2014 and 55.3 percent in 2013.

In addition, property managers at our corporate and other office locations implement waste recycling programs that require employees to use recycling receptacles for materials such as paper, plastics, cardboard and batteries.

At present, we are required to track and report on our waste management practices in some, but not all, of our regulatory jurisdictions. For example, the Alberta Energy Regulator requires us to track LP Canada's waste within its jurisdiction. And, the Ontario Ministry of the Environment and Climate Change Hazardous Waste Information Network requires us to track GD's liquid and solid hazardous waste and its liquid industrial non-hazardous waste.

Hazardous and Non-Hazardous Waste by Weight and Disposal Method – Enbridge Gas Distribution

Over the past three years, the estimated total weight of Enbridge Gas Distribution's (EGD) hazardous and non-hazardous waste—by disposal method—was as follows:

Enbridge Gas Distribution

Hazardous Waste/ Liquid Industrial Waste	2013¹	2014²	2015³
	(kg*)	(kg*)	(kg*)
Recycled and Recovered	63,590	72,582	40,296
Incinerated	32,142	29,704	49,552
Deep-well Injection	6,855	10,410	0
Landfilled	452,077	1,991,514	717,456
Water Treatment	922,841	1,140,175	532,390
Solidification	0	434,995	456,464
Total	1,477,505	3,679,380	1,796,652
Non-Hazardous Waste			
	2013¹	2014²	2015³
	(kg*)	(kg*)	(kg*)
Recycled and Recovered	1,888	0	0
Incinerated	0	1,550	0
Landfilled (placement, and daily cover/capping)	10,785,865	6,281,019	7,983,652
Water Treatment	330,240	378,107	70,450
Total	11,117,993	6,660,676	8,054,102

*assumed average density: 1 liter = 1 kg

¹ In addition to EGD, where common suppliers were used, includes some waste weights from Gazifere.

² In addition to EGD, where common suppliers were used, includes some waste weights from Gazifere and Enbridge Gas New Brunswick.

³ In addition to EGD, where common suppliers were used, includes some waste weights from Gazifere.

Note that, on July 7, 2017, we corrected the information provided above to make it clear that it pertains to EGD, and not to Gas Distribution (which is the business segment to which EGD belongs, along with other natural gas utilities).

The total weight of EGD's hazardous waste (including liquid industrial waste) and non-hazardous waste varies from year to year depending on the number of construction projects that EGD completes. EGD's year-over-year increase in hazardous waste in 2014 was due to an increase in work activities and to the fact that EGD had replaced underground storage tanks at two locations. The weight of EGD's non-hazardous waste slightly increased in 2015

due to the higher volumes of contaminated soil that EGD encountered, and to the fact that EGD is not able to re-use contaminated soil as backfill.

Air Emissions Management

NO_x, SO_x and Other Significant Air Emissions

The major air emissions that our facilities release include carbon monoxide (CO), nitrogen oxides (NO_x) and volatile organic compounds (VOCs). Other contaminants that they release, but in much smaller quantities, include sulfur dioxide (SO₂), hydrogen sulfide (H₂S), particulate matter (PM) and hazardous air pollutants such as n-hexane.

Our facilities are designed to ensure that air emissions from our operations are kept below regulated limits. In some cases, we have exceeded regulatory requirements and have installed technologies in our facilities that further reduce air contaminant emissions.

Reporting Criteria Air Contaminants

Criteria air contaminants (CACs) are a group of common air pollutants that are released through incineration, industrial production, fuel combustion and transportation vehicles. We have established management programs that define our roles, responsibilities and timelines for reporting our CAC emissions to various government agencies in Canada and the U.S.

We base our CAC emissions estimates on published emission factors applied to fuel use by equipment type. In the case of non-combustion sources, we estimate CAC emissions using modeling programs such as the U.S. EPA's TANKS program. We also use some site- or equipment-specific emission factors.

In Canada, LP and GD track and report annual CAC emissions under the National Pollutant Release Inventory (NPRI). The CACs covered under the regulation include NO_x, SO₂, VOCs, CO and particulate matter. In the U.S., both LP and GPP&ES monitor and report on CAC emissions in compliance with state and federal regulations.

Liquids Pipelines – Within LP's operations, the main source of VOC emissions is losses from storage tanks, while the main source of NO_x emissions is combustion equipment.

Air emissions levels vary from year to year depending on a number of factors, including throughput of products at terminals, product composition, maintenance activities such as tank cleaning, implementation of pollution prevention projects and the amounts of fuel used in combustion equipment.

The tables below summarize LP's CAC information reported in its jurisdictions:

Liquids Pipelines Canada

(tonnes)	2012	2013	2014
NO _x (as NO ₂)	120	125	123
VOCs	3,592	2,534	2,297
PM _{2.5} ¹	60	60	60
PM ₁₀ ¹	564	565	584
TPM ¹	2,179	2,179	2,145

The majority of particulate matter (PM 2.5, PM 10 and TPM) that LP reported under the NPRI program is due to road dust. Much smaller quantities of particulate matter are from stationary combustion sources.

Liquids Pipelines U.S.

(tonnes)	2012	2013	2014
NO _x	< 1	7	27
VOCs	638	675	685
PM2.5	< 1	0.6	0.6
PM10	< 1	0.6	0.6
TPM	< 1	0.6	0.6
CO	< 1	11	59

LP established an ambient air monitoring network to monitor the air quality in and around its tank farm at Hardisty, Alberta. The stations collect and monitor the air quality both continuously and on the National Air Pollution Surveillance schedule. In addition to the air monitoring stations, LP conducts semi-annual head-space air sampling on each storage tank to ensure emission-control devices are functioning.

LP is a member of the Strathcona Industrial Association (SIA), which owns and operates an air monitoring network in Edmonton and Strathcona County, Alberta. The stations continuously monitor the air quality around LP's Edmonton Terminal.

LP is also a member of the Sarnia-Lambton Environmental Association (SLEA), a non-profit cooperative that comprises industries in southwestern Ontario. SLEA monitors ambient environmental conditions to assess the impact of its members on the local environment (air, water and soil). LP operates the Sarnia Terminal, which is within the jurisdiction of SLEA.

LP has a rigorous maintenance program in place that includes regular inspections of emission control devices, and repair or replacement of them to ensure they meet regulatory criteria.

Gas Pipelines, Processing & Energy Services – GPP&ES is continually looking for opportunities to upgrade its gas facilities and pipelines in ways that contribute to its operational, environmental and safety goals. One example is acid gas injection, which uses advanced technology to compress acid gas, primarily H₂S and carbon dioxide (CO₂), and inject the gases into suitable underground reservoirs, thereby avoiding emissions to the atmosphere. In 2014, GPP&ES utilized two acid gas injection wells near our Aker Treating Plant in East Texas. In 2014, the facility injected more than 29,000 tons of CO₂ and nearly 260 tons of SO₂ that otherwise would have been emitted to the atmosphere.

GPP&ES reported the following criteria pollutant emissions in the three years in 2012, 2013 and 2014:

Gas Pipelines, Processing & Energy Services (tonnes)	2012	2013	2014
CO	1,926	1,783	1,399
NO _x	2,795	2,766	2,319
VOCs	1,647	1,177	1,352
SO ₂	540	412	403

2014 totals include emissions data for GPP&ES's interest in the Vector natural gas pipeline and Enbridge's storage terminal located in Cushing.

Oklahoma. Data from those assets were not included in prior-year totals.

Gas Distribution – In Canada, GD reports annual criteria air contaminant emissions under the National Pollutant Release Inventory (NPRI). GD calculates emissions using emission factors or site/equipment-specific data. The emissions that GD reports to NPRI depend on which facilities are above the reporting thresholds for each reportable substance. As such, they fluctuate from year to year.

In 2014, GD reported three facilities to NPRI versus only one in 2013. In 2013, one facility that normally would have triggered reporting was out-of-service, but was back in service during 2014. Additionally, a third facility had a higher run time than previous years, which pushed it over the threshold for reporting for particulate matter.

Gas Distribution (tonnes)	2014	2013	2012
CO	119	72	90
NO_x (as NO₂)	132	66	110
VOCs	30	27	16
PM	1.8	0.67	-

In 2012, GD's PM emissions were not reportable.

Management of Ozone-Depleting Substances

We do not use Ozone-Depleting Substances (ODS) in our industrial processes, products or services, so this indicator does not generally apply to our business.

Transportation

Gas Distribution (GD) has the largest fleet of natural gas vehicles in Canada.

Over the last decade or so, GD has converted 648 of its 853 fleet vehicles to run on natural gas. The majority of these vehicles run on both natural gas and gasoline, but some of them—mostly medium-duty trucks, which are normally diesel-fueled—run only on natural gas. Through this initiative alone, GD has reduced its GHG emissions by more than 500 tonnes of carbon dioxide equivalent per year.

GD has also reduced its fleet size by standardizing vehicle designs and building in versatility. For example, it has redesigned some of its trucks such that one truck can now perform three functions. In this way, only one truck is needed, whereas, as in the past, three were needed.

And, GD has installed a hybrid-power system that enables work trucks to operate AC and DC power tools and equipment from their batteries when their engines are not running. This system reduces fuel consumption and GHG emissions, along with vehicle idling, noise, and wear and tear.

Impact Mitigation

We are involved in a wide range of initiatives aimed at mitigating the potential impacts that our business has on the environment. We take a proactive approach at all stages of our work.

We conduct environmental assessments and implement industry-standard protective measures prior to conducting project-related work—and many operational activities—to address all foreseeable impacts.

We aim to prevent any spill, leak or release of petroleum products through proactive monitoring, inspection and maintenance. When we experience a spill, leak or release, we carry out emergency response procedures to shut

down and isolate the impacted asset, notify the appropriate government and regulatory agencies, contain the substance as appropriate, and manage potential safety and environmental impacts. *For more information, please see the Fitness of Enbridge's Systems and Leak Detection and Emergency Preparedness & Response sections of this report.*

Every year, we invest significantly in pipeline technologies that improve the fitness of our systems, leak detection and damage prevention capabilities. We also invest in emerging technologies, such as clean power and energy storage. *For more information, please see the R&D and Innovation section of report.*

GD provides incentives to customers—from homeowners to large industrial facilities—to encourage them to adopt energy-saving equipment and operating practices that reduce natural gas consumption. *For more information, please see the Energy & Climate Change section of this report.*

ABORIGINAL & NATIVE AMERICAN RIGHTS & ENGAGEMENT

OVERVIEW

More than 130 Aboriginal communities are located along our rights-of-way in Canada and about 12 Native American tribes are located along our rights-of-way in the U.S. In both Canada and the U.S., energy infrastructure development requires the involvement of Aboriginal and Native American peoples who live and work in areas where development is located. We recognize the history, uniqueness and diversity of Aboriginal and Native American peoples and strive to build trust and lasting relationships with them.

MANAGEMENT APPROACH

Our approach to Aboriginal engagement is based on our Aboriginal and Native American Policy and is demonstrated by our recognition of our need to establish long-term relationships and greater collaboration with Aboriginal and Native American communities. We have translated our policy into Cree and are in the process of translating it into other Aboriginal languages, including Nakota, Dakota, Michif and Blackfoot.

Our policy identifies the methods by which we develop mutually beneficial relations with Aboriginal and Native American communities in proximity to our projects and operations. It also outlines the key principles that guide our Aboriginal and Native American relations:

- respect for legal rights and for traditional ways and knowledge,
- respect for heritage sites, land and the environment,
- forthright and sincere consultation regarding our projects and operations, and
- achievement of sustainable benefits for communities arising from our projects and operations.

As part of our engagement strategy, we identified the following focus areas to create opportunities aligned with the aspirations of Aboriginal and Native American communities:

- building relationships through consultation and engagement with the Aboriginal and Native American communities near our construction and operating areas,
- creating partnerships to support investment in Aboriginal and Native American communities,
- supporting employment and training programs, and
- facilitating Aboriginal and Native American business and economic opportunities.

As we develop projects, we adapt our consultation and engagement strategies to address specific activities associated with our work. We consider who may be affected by the project or subsequent operations and tailor our approach to meet specific individual community needs.

Where a project requires an environmental and social impact assessment, we provide full disclosure of the results of those assessments in the regulatory hearings and in the publicly available documentation.

In 2015, we began a process to review and update our Aboriginal and Native American Policy and to develop a new Indigenous engagement framework that will help us evolve the way we engage and maintain our long-term relationships with Indigenous communities.

Canada

In Canada, our Aboriginal engagement activities are based on:

- meeting the regulatory requirements of the duty to consult, as delegated by the Crown (provincial and federal governments),
- ensuring we understand how our activities may impact constitutionally protected rights,
- demonstrating that we consider and understand the potential impacts on communities, and working with communities to mitigate those impacts and resolve issues or concerns,
- earning social acceptance through community support and by addressing community issues, and
- finding opportunities for Aboriginal communities to be involved in, and benefit from, our projects and operations.

We believe that our engagement activities create shared value through economic participation and community investments, demonstrate our support for the communities involved and provide tangible benefits.

U.S.

In the U.S., our Native American engagement is informed by two levels of engagement.

Our Tier One engagements are with Native American tribes whose reservation lands are directly crossed by our pipelines. Our goal is to have regular communications with these tribes through our emergency response and preparedness programs and our Public Awareness Program.

We consult with these tribes' Tribal Employment Resource Ordinance Offices (TERO) to facilitate the employment of tribal members on various work crews. We also work collaboratively with them to find opportunities to train and employ tribal members.

For our new projects, we engage with tribes to negotiate agreements that allow us to cross their land. We engage them through face-to-face and small group meetings, and through written communications. We also send them project details and information through our Public Awareness Program.

Our Tier Two engagements are with Native American tribes who lay claim to ceded territories that our pipelines cross. In the past, we engaged with these tribes pursuant to Section 106 of the National Historic Preservation Act, a federal government-led consultation program. However, in Minnesota, we have begun our own outreach with tribes that are active participants in the Minnesota regulatory process. We are engaging with these tribes to further our shared interest in protecting the environment.

Human Rights

Our Statement on Business Conduct contains provisions that support the protection of human rights and freedoms within our sphere of influence, and we consistently and rigorously strive to uphold the highest human rights standards in all of our work.

The Canadian Constitution recognizes Aboriginal Peoples in Canada and provides constitutional protection of their Aboriginal and treaty rights. As such, the Crown (the federal and provincial governments) recognizes that Aboriginal groups are separate and distinct from other stakeholders.

In Canada, the Crown has an obligation to consult with Aboriginal communities if a government decision has the potential to adversely impact a constitutionally protected Aboriginal or treaty right. The Crown may decide to delegate the procedural aspects of its consultation obligation to project proponents such as Enbridge. When the Crown makes this decision to delegate, project proponents must conduct their consultations as part of the regulatory process, and must take into consideration Aboriginal groups' distinct nature and interests.

In the U.S., as required under Section 106 of the National Historic Preservation Act, the federal government must consult with recognized Native American tribes and other designated agencies on projects that have the potential to adversely affect historic properties. Under federal law, the U.S. Bureau of Indian Affairs must grant a right-of-way before a company can proceed with construction on any Indian reservation; on any lands that are being held in trust for a tribe, band or individual Indian; or on any lands held by individual Indians or Indian tribes or bands that are subject to restraints against alienation. *For more information, please see the Business Conduct & Ethics and Employee Relations sections of this report.*

Consultation and Community Engagement

We recognize and honor Aboriginal and Native American communities' close relationship with the land and the environment. We are also committed to socially responsible activities, and to involving the communities where we live and work. For these reasons, we undertake transparent and meaningful consultations with Aboriginal and Native American peoples and communities regarding our projects and operations. Our consultation activities are guided by our Aboriginal and Native American Policy and comply with all guidelines established by applicable regulatory bodies.

We understand the importance of engaging early and often with Aboriginal and Native American communities for any given project. Our goal is always to learn as much as possible about the underlying social, economic, political and environmental conditions of the individuals and communities in question, and to understand their expectations, interests and concerns. To that end, as we expand our understanding, we adapt our engagement plans and practices to address the specific needs and concerns of the individual communities as best we can for all of our projects.

In Alberta, Aboriginal communities can submit formal grievances regarding our projects to the Alberta Energy Regulator (AER) through Statements of Concern (SoC). While we must follow a formal process to address any SoCs that have been submitted, we also invite communities that have made submissions to meet with us—or to submit concerns directly to us—so that we can better understand them.

In some cases—whether an SoC has been submitted or not—we enter into formal agreements with communities to provide extra assurances regarding community support, environmental protection or community involvement in project construction through employment opportunities. In cases where a community's concerns pertain to the cumulative effects of development, we provide information about the steps we have taken to minimize these effects, such as following an existing right-of way. In cases where concerns pertain to the environment, we share our environmental protection plans. When these steps do not resolve the concerns, we meet with the community to discuss additional actions that we could take.

Economic Participation

We are committed to providing economic opportunities to Aboriginal and Native American businesses, contractors and suppliers by identifying business opportunities and employment capacity; working with them to implement training programs that will increase their access to project-related employment opportunities; helping local businesses complete our pre-qualification process and comply with our vendor certification systems; and, informing our general contractors of the local capacity to provide ancillary services.

We recognize that hiring Aboriginal and Native American businesses and contractors, and buying from Aboriginal and Native American suppliers, supports local employment, gives us the opportunity to understand available services and

talent, and helps us build trust and maintain our social license to operate. We also recognize the important contribution these businesses, contractors and suppliers make each year to the overall economy, and have a long history of working with them. In 2015, we spent more than \$63 million in Canada on procuring goods and services from them.

As part of our commitment to providing economic opportunities, we set aside contracting opportunities for qualified Aboriginal and Native American businesses, contractors and suppliers in specific project areas. We also encourage collaborative opportunities between Aboriginal businesses and non-Aboriginal businesses when the collaboration builds capacity and supports mutual interests.

Also as part of our commitment, in 2015, we embedded Aboriginal and Native American business development specialists into our Liquids Pipelines/Major Projects Supply Chain Management team to facilitate greater participation of Aboriginal-owned businesses in our projects and operations.

Community Partnerships

We partner with and support Aboriginal and Native American communities near our projects and operational rights-of-way. We share our prosperity with these communities through community investments, and through partnership and volunteer initiatives that support community organizations that share our commitment to making communities better places to live.

Aboriginal and Native American community members tell us that they want their children to have better educational opportunities so they can be successful beyond the scope of our operations. For that reason, education, scholarships, skills-development training, leadership and management training are vital components of our community partnerships with them.

Recognition

In August 2015, the Canadian Council for Aboriginal Business (CCAB), which certifies companies' Aboriginal engagement performance at the bronze, silver and gold levels, recertified us at the "silver" level under its Progressive Aboriginal Relations (PAR) program. CCAB's recertification, which we must apply for every three years, signalled to Aboriginal communities that we are a good business partner, a good place to work, and committed to Aboriginal prosperity. When granting our recertification, CCAB noted that we had substantially improved our Aboriginal policies, strategies, plans and processes since our original 2012 certification, and that we are a best-practices organization in the field of Aboriginal Relations.

STRATEGIC PRIORITY

- **Work with Aboriginal and Native American communities in Canada and the U.S. to create opportunities through engagement and economic participation, and community investment.**

2015 PERFORMANCE

KEY FACTS

We are **reviewing and updating our Aboriginal and Native American Policy** and developing a new Indigenous engagement framework that will help us transform the way we engage and maintain our long-term relationships with Indigenous communities.

In 2015, we spent more than **\$63 million on procuring goods and services from Aboriginal businesses, contractors and suppliers** in Canada.

Our **Line 3 Replacement program (L3RP) in Canada has involved the most extensive outreach to Aboriginal groups and communities in our history**. Over the two years that led up to the December 2015 hearings on L3RP, we met with more than 150 Aboriginal groups and communities.

In 2015, **we provided over \$800,000 in community development funding to Aboriginal communities across Canada** in support of initiatives such as new and improved infrastructure projects.

In August 2015, **the Canadian Council for Aboriginal Business (CCAB) recertified us at the “silver” level** under its Progressive Aboriginal Relations (PAR) program.

Our Work with Aboriginal Communities in Canada to Create Opportunities

Reverse Tradeshows

In 2015, we hosted three reverse tradeshows to which we invited local Aboriginal business representatives and contractors, as well as non-profit and governmental organizations that support Aboriginal business development, employment and training. At the tradeshows, our Mainline contractors and representatives from our Supply Chain Management, Safety, Quality Assurance and Operations departments, provided business marketing materials to participants, answered questions and exchanged information regarding business profiles and opportunities.

The tradeshows demonstrate our commitment and dedication to working with and enhancing our relationships with Aboriginal communities and businesses. They also give our employees and Mainline contractors an opportunity to learn more about our approach to maximizing Aboriginal participation in our projects and operations.

As a result of the tradeshows, we better understand local aboriginal businesses' capabilities, and aboriginal business representatives better understand our—and our mainline contractors'—processes and requirements. Aboriginal contractors also gained access to training, employment and subcontracting opportunities.

Line 9B Reversal and Line 9 Capacity Expansion Project

Since 2012, we have been engaging with a number of Aboriginal groups, including the Kahnawake First Nation (MCK) in Quebec, regarding our Line 9B Reversal and Line 9 Capacity Expansion project (Line 9). As part of our engagement with MCK, we established an internal process—which involved numerous technical briefings, field tours, meetings and other communications—that we used to strengthen our relationship with this community and to work through concerns outside of the National Energy Board (NEB) regulatory process.

Partially as a result of our efforts, in April 2015, MCK helped us meet one of the conditions that the NEB had imposed on the Line 9 project by providing us with valuable recommendations and technical guidance.

Cabin Natural Gas Plant Procurement

In 2015, we entered into service contracts worth over \$25 million with local Aboriginal businesses related to our Cabin natural gas plant and its operations camp in northwest B.C. The businesses provide camp operations and janitorial services as well as services pertaining to the provision of potable and utility water, sewage collection and disposal, the inspection and repair of HVAC units and the grading of plant roads, among others.

Line 3 Replacement Program (Canada) Engagement

Our Line 3 Replacement program (L3RP) in Canada has involved the most extensive outreach to Aboriginal groups and communities in our history. Over the two years that led up to the December 2015 NEB hearings on L3RP, we met with more than 150 Aboriginal groups and communities, some of which have reserve lands as far as 300 kilometers from the L3RP right-of-way.

Listening was a key part of our approach throughout our engagement leading up to the hearings. While listening, we heard about the communities' traditional connection to the land, and about the land's fundamental importance to their culture and way of life. We also acquired Aboriginal traditional knowledge, which we included in the comprehensive L3RP environmental and socio-economic assessment (ESA) that we completed in advance of the NEB hearings. The ESA considered L3RP's possible cultural and social impacts on areas such as trails and waterways, plant harvesting, hunting, fishing and sacred sites, and its possible environmental impacts on areas such as water, air, fish, wetlands, vegetation, wildlife and human health, among other areas. After completing the ESA, we proposed hundreds of mitigation measures for L3RP.

As part of our L3RP engagement leading up to the hearings, we engaged with a number of Saskatchewan First Nations near the Qu'Appelle River Valley to exchange knowledge and ideas regarding how we can mutually protect and steward water and ecosystems in the valley.

We also worked with all of the First Nations along the L3RP right-of-way to plan a range of training, education and employment opportunities. The result of this work was our L3RP Training-to-Employment program, which will give participants an opportunity to gain technical knowledge, transferable skills, and ongoing support for career growth and development in the pipeline and construction industries. We launched the first two L3RP Training-to-Employment program pilot sessions—Pipeline 101 and Heavy Equipment Operator (HEO)—in November 2015 in Saskatchewan. Forty participants successfully completed Pipeline 101, while 29 successfully completed the HEO session. As we evolve the L3RP Training-to-Employment program, we intend to offer additional training opportunities to participants in Alberta, Saskatchewan and Manitoba.

Wood Buffalo Extension Project

Through our engagement with Aboriginal communities along our Wood Buffalo Extension project's right-of-way, we learned of the need for basic trades training for community members interested in entry-level pipeline construction positions. In response, we invested \$180,000 in 18 Aboriginal community members from northeastern Alberta so that they could enroll in Portage College's Pipeline Construction training-to-employment pilot project. We also secured contracts from Midwest Pipelines for the pilot project participants to work on our Wood Buffalo Pipeline Extension project during the 2015 to 2016 construction season.

Greater Toronto Area Project

In 2012, Enbridge Gas Distribution (EGD) began consulting with Aboriginal groups and other stakeholders regarding its Greater Toronto Area (GTA) project to install 50 kilometers of new natural gas distribution pipelines to meet GTA's growing need for natural gas. EGD began constructing the project—the route for which was primarily located within existing utility corridors—in December 2014 and completed it in early 2016.

In response to environmental concerns that local Aboriginal groups had expressed, throughout the project's construction, EGD arranged for an environmental inspector to lead monthly visits to specific sites that were of interest to the groups. The visits gave the groups an opportunity to learn about the project, and gave EGD an opportunity to understand their concerns.

As part of the project, EGD also consulted with representatives of the distantly located Huron-Wendat Nation (HWN) after its initial archeological assessments had identified three HWN sites of interest in the existing utility corridor. As a result of its consultations, EGD hired an archaeologist and engaged archaeological monitors from several First Nations communities to ensure that their input was incorporated into EGD's work on the project.

As a result of HWN's input, EGD took measures, including the use of horizontal directional drilling (HDD), to minimize any impact on these archeological sites. Because we understand that archeological sites have importance spiritual and cultural significance for Aboriginal communities, EGD also extended the opportunity to HWN and the other First Nations to hire experts to analyze the archeological findings in the area, and to discuss ways to protect the sites.

Western Region Aboriginal Engagement

We continually engage with over 25 First Nation and Métis communities in our Western Region regarding our projects. Although the Alberta government does not currently require us to consult with the Métis communities, we do so because we recognize that Métis communities may have Aboriginal Rights and, as such, we want to understand and respect their rights and traditional land uses.

Enbridge School Plus Program

In 2015, we gave grants totaling over \$470,000 to 25 on-reserve schools in Alberta, Saskatchewan, Manitoba and Ontario under our Enbridge School Plus Program (ESPP), which, for the last seven years, has provided financial support to First Nations schools for education enrichment programming. In addition, under ESPP, we gave grants totaling \$80,000 to two urban Aboriginal partnerships: the Enbridge Young Artists Project at the MacKenzie Art Gallery of Regina in Saskatchewan, and the Métis Child and Family Services' Hot Lunch and Nutrition program in Edmonton, Alberta.

Since we created it in 2009, ESPP has provided more than \$5 million in grants to support educational enrichment projects for Aboriginal school children in Canada.

Habitat for Humanity Partnerships

In 2015, as part of our Enbridge Aboriginal Home Program, we contributed \$50,000 to an on-reserve Habitat for Humanity (H4H) build of a 10-unit elders lodge at the Flying Dust First Nation in Saskatchewan. The lodge will provide safe, affordable and sustainable housing for 10 of the community's elders. It will also free up the houses that the elders had been living in for young families.

As part of our commitment to addressing Aboriginal housing needs, in 2015, we also:

- partnered with H4H, Greystone, Mosaic, the City of Regina, the Province of Saskatchewan, and 200 local women (who had raised over \$1,000 each) to build townhouses for three families in Habitat Plains, Regina,

- partnered with H4H and the Portage Collegiate Institute's Building Construction Trades students to build houses for three families in Portage la Prairie, Manitoba,
- partnered with H4H, the Prairie Valley School Division and the Regina Trades & Skills Construction Apprenticeship Program to provide a house to a family in Fort Qu'Appelle, Saskatchewan,
- partnered with H4H to provide a house to a family in Duck Lake, Saskatchewan (under the direction of various tradespersons, inmates from the Willow Cree Healing Lodge built the house—receiving valuable trades training in the process—as part of a Memorandum of Understanding between Corrections Canada and H4H), and
- donated \$25,000 each to two Metis settlements in Alberta—the Gift Lake Metis Settlement and the East Prairie Metis Settlement—for house building projects that our employees helped with.

Aboriginal Community Investment

In 2015, we funded \$126,000 worth of Aboriginal scholarships and bursaries that benefited 55 students in various educational institutions across Canada. We also provided \$15,000 to the Amiskwacyi Academy, an Aboriginal cultural school in Edmonton, Alberta, so that it could construct a garden for traditional and medicinal plants. The school's elder will use the plants in ceremonies, and the school will use the garden as an outdoor classroom to enhance their cultural, science, trades, and entrepreneurial curriculum.

In addition, we provided \$200,000 to 23 organizations in Aboriginal communities in the Athabasca region of Alberta for events and programming. Among the organizations that benefitted was the Blue Quills University Cree Language Program, to which we donated \$20,000. Others were the Lac La Biche Friendship Centre and the Fort McMurray Friendship Centre, to which we donated funding to support financial literacy workshops.

Also in 2015, we provided over \$800,000 in community development funding to Aboriginal communities across Canada in support of initiatives such as new and improved infrastructure projects. We understand that the communities themselves are in the best position to identify their needs and, on a case-by-case basis, we leave it to them to allocate the funding as they see fit.

Our Work with Native American Communities in the U.S. to Create Opportunities

Line 3 Replacement Program (U.S.) and Sandpiper Pipeline Project Engagement

In 2015, we worked with representatives of the White Earth and Mille Lacs Bands in Minnesota to address their concerns regarding our Sandpiper Pipeline project and Line 3 Replacement program (L3RP) in the U.S. Both White Earth and Mille Lacs are formal intervenors in the Minnesota Public Utilities Commission's regulatory process concerning the two projects, and are concerned about the wild rice in the ceded territory that would be crossed by the two projects. In an effort to address their concerns, we met with representatives of the two bands to discuss the projects' route and agreed to move it such that it is farther away from the areas of concern.

In May, we hosted a listening session in Carlton, Minnesota, to which we and invited representatives from the Leech Lake, Fond du Lac, White Earth, Red Cliff and Bad River Bands, and at which we listened to band members' concerns and thoughts about our operations and proposed projects, and gained insights on how to create shared value with them.

In November, we hosted a wild rice engagement session, which included cultural awareness training as well as a presentation on the history of wild rice in Minnesota. At the session, we learned about Ojibwe culture and the significance of wild rice to Native Americans, and discussed how we can best engage with the Minnesota bands.

U.S. Mainline

Each year, we send public awareness mailings and engage in emergency responder outreach with the Leech Lake Band of Ojibwe and the Fond du Lac Band of Lake Superior Chippewa along our U.S. Mainline. We also regularly discuss operations and maintenance activities with representatives from these bands.

In addition, we communicate with the Fond du Lac and Leech Lake Tribes to monitor various environmental issues. For example, we are regularly in touch with the Leech Lake Division of Natural Resources to review and discuss samples from monitoring wells at the Cass Lake Station, at which a pipeline leak had occurred.

Line 5 Engagement

In addition to our annual engagement activities, we are involved in ongoing discussions with the Bad River Band of the Lake Superior Tribe of Chippewa Indians in Wisconsin regarding the renegotiation of an easement agreement for our Line 5. In September 2015, band members asked us to give them detailed information on the fitness of Line 5, our maintenance plans for it, and our emergency response capabilities should an incident occur. We shared the information and met in person with band representatives. We are currently waiting to discuss next steps.

Red Lake Land Claim

After several years of working with the Red Lake Indian Band in Minnesota, in 2015, we negotiated a settlement agreement that will resolve the band's claim to a small land parcel near Leonard, Minnesota. The U.S. Department of the Interior had returned the land to the band in the mid 1940s, but had not formally registered its return until the mid 1990s. In the interim, Lakehead Pipeline Company, Inc. (an Enbridge company) had constructed pipelines through the land, believing at the time that it had legally obtained the rights to do so from the proper owner. In 2008, the band's ownership of the land was clearly established, and we began negotiating a resolution. The 2015 settlement includes a monetary payment and a land swap.

HUMAN HEALTH & SAFETY

OVERVIEW

We are committed to ensuring that everyone returns home safely at the end of each day, and that our assets are operated safely. Our commitment is based on caring for our employees, contractors, customers, communities, and the environment.

MANAGEMENT APPROACH

Our Strategy

Together, safety and operational reliability are our number one strategic priority, and we are committed to ensuring that we are leaders in these areas.

Following our oil spill in 2010 in Marshall, Michigan, we recognized our need to improve our risk and safety culture and practices. As a priority, we identified six key operational risk areas—Integrity Management; Damage Avoidance and Detection; Leak Detection Capability and Control Systems; Emergency Preparedness; Occupational Safety; and Process Safety—and undertook significant action across our businesses to reduce risks and achieve industry leadership in all six areas.

Over the last five years, through our actions, our safety and operational reliability performance is now at or near industry leading. In 2013, we completed an external verification that confirmed that we had made significant progress in identifying and mitigating our company's significant and material risks. The external verification also provided an opportunity for us to compare our risk management practices to others in our industry and to world leaders.

The verification's findings have enhanced, and will continue to enhance, the transformation of our risk and safety culture as we strive to achieve industry-leading performance in safety and operational reliability. We recognize that our pursuit of industry best performance is underpinned by behavioral change across our company, and know that change will occur over the long term. We also know that the change will require systems to sustain it, and a continuous leadership presence to drive it forward. We are addressing these considerations and, in 2016, will have another external verification conducted to track our progress and identify opportunities for continued improvement.

Our new five-year strategic plan, which we launched in October 2015, continues to emphasize the importance of safety, operational reliability and the advancement of our risk and safety culture will help guide us toward our vision of energy leadership. It focuses on three key areas:

- **Mitigation of incidents due to human factors:** Acknowledging that a chain is as strong as its weakest link, Enbridge has implemented mandatory enterprise-wide training and investigation protocols to increase awareness of human factors.
- **Enterprise Risk Framework:** A key focus of the plan will be to embed a common framework within our operations and those of our joint venture partners that will prioritize and integrate rigorous and consistent risk management practices into our business activities.
- **Improve Process Safety Management (PSM):** Varying degrees of maturity exist in PSM throughout Enbridge and our focus is to build upon these and ensure that leading process safety management capabilities are embedded throughout the organization.

For more information, please see the *Strategy & Priorities* and *Risk Management* sections of this report.

The Enbridge Safety Management System Framework

Our Safety Management System Framework provides all of our business segments with common guidance and structure to ensure that our efforts to deliver industry-leading safety and reliability performance are thoroughly and expertly planned, executed, monitored and continuously improved upon using a shared approach.

While each of our business segments has unique operations, our Safety Management System Framework establishes the minimum standards and components to which each business segment must adhere. It comprises the following nine elements, which are based on best practices in safety management, and existing and emerging regulatory requirements:

- **Element 1:** Leadership Commitment and Accountability,
- **Element 2:** Management Review, Safety Assurance, Stakeholder Engagement and Continuous Improvement,
- **Element 3:** Risk Management,
- **Element 4:** Operational Control,
- **Element 5:** Management of Change,
- **Element 6:** Incident Management and Investigation,
- **Element 7:** Emergency Response and Preparedness,
- **Element 8:** Competency, Awareness and Training, and
- **Element 9:** Documentation and Recordkeeping.

Our Safety Management System Framework employs the Plan-Do-Check-Act cycle, which is a methodical approach to managing complex systems that encourages the creation of effective plans and a built-in program of continuous improvement.

Leadership Commitment

The first element of our Safety Management System Framework is strong formal leadership.

Leaders are responsible for developing and supporting improved safety performance and a positive risk and safety culture at Enbridge. This responsibility includes establishing, resourcing and executing on a strong safety policy to meet ambitious and meaningful safety and reliability objectives. Leaders must also continually assess the implementation and maturity of each of the elements in the Safety Management System. As well, leaders must demonstrate their focus and support for safety and reliability through effective and active performance management of their teams, including incentives for strong safety and reliability performance that improves over time.

While leaders have specific and defined accountabilities related to safety and reliability, all members of the Enbridge team, including contractors, must demonstrate and exercise safety leadership.

Accountabilities

Leadership/Management Accountability

Management will lead and demonstrate their commitment to the development, implementation, evaluation and continuous improvement of the safety management system by:

- establishing and maintaining policy, goals and objectives consistent with Enbridge's overall strategy,

- promoting a positive risk and safety culture, based on mutual trust, interdependence and being a learning organization,
- ensuring clear accountability for implementation of Safety Management System elements, with a clear line of sight from objectives to day-to-day activities,
- ensuring that risk management processes reveal and mitigate risk, making compliance and risk reduction a standard part of doing business,
- ensuring that dependent and interrelated functions within the organization are collaborating, sharing information and working to achieve the policies and objectives,
- establishing a performance management policy, including recognition and discipline, that promotes strong safety performance,
- promoting safety engagement and leadership at all levels of the organization, and
- leading the allocation of resources to support strong safety performance.

Employee Accountability

Employees, supported by management, will:

- follow the procedures set forth by the organization,
- identify and promote improvements to processes and procedures,
- identify and communicate risks,
- treat the safety of the public, fellow employees and the environment as the primary consideration when, addressing an abnormal condition or changes to policy, process or procedure, and
- stop work they consider unsafe and never leave a question about safety unresolved.

Enbridge's Health & Safety Principles

Our Health & Safety Principles complement our core values of Integrity, Safety and Respect by guiding our actions, policies, procedures and culture.

The principles are fundamental beliefs and expectations as we drive toward 100 percent safety. They help create a culture in which safety is everyone's responsibility, leadership is accountable for safety performance, continuous improvement is required, hazards are controlled and our commitment to caring extends beyond the workday. They are:

- all injuries, incidents, and occupational illnesses can be prevented,
- all operating exposures can be controlled,
- management is accountable for safety performance,
- all employees/contractors are responsible for safety,
- assessment and improvement are a must, and
- we promote off-the-job health and safety for our employees 24/7.

Enbridge's Lifesaving Rules

The Health & Safety Principles complement our six Lifesaving Rules, which are:

- **Hazard Management:** Always ensure an analysis of potential hazards has been completed and proper authorization received prior to starting the work.
- **Driving Safety:** Only drive a vehicle or operate equipment when not under the effect of alcohol or any substances that cause impairment.
- **Confined Space Entry:** Always follow procedures for confined space entry.

- **Ground Disturbance:** Always follow procedures for locating, positively identifying and excavating buried facilities.
- **Isolation of Energized Systems:** Always follow procedures for Lockout / Tag-out.
- **Reporting of Safety-Related Incidents:** Always report significant safety-related incidents.

Where the Health & Safety Principles outline how we *think* about health and safety at Enbridge, and define our philosophy and approach, the Lifesaving Rules define specific actions and behaviors that all Enbridge employees and contractors are obliged to follow. The rules are concrete and absolute, and are backed up by detailed policies and procedures.

STRATEGIC PRIORITIES

- **Continuously strive to strengthen our risk and safety culture.**
- **Ensure safe workplaces and communities.**

2015 PERFORMANCE

KEY FACTS

Each quarter **we pause to remember four disastrous incidents from our past** that killed and injured members of the public and of our team. In pausing, we remind ourselves of the consequences of failing in our duty to be safe.

Our rates of 0.66 recordable injuries per 200,000 employee hours worked and 0.12 lost-days injuries per 200,000 employee hours worked were the **lowest they have been since we began tracking them**—all during a time when the number of hours that employees worked increased.

Our employees spent approximately **140,000 hours in 2015 building their safety knowledge and skills.**

In April 2015, for the second consecutive year, the American Gas Association recognized our Gas Distribution business segment as an industry leader in employee safety with the **Safety Achievement Award** for the lowest Days Away, Restricted or Transferred (DART) incident rate among companies of similar size and type.

Strengthening Our Risk and Safety Culture

In 2015, we continued to take multiple steps to strengthen our risk and safety culture:

Assessing Our Progress

LP and our Major Projects business unit (MP) participated in the Canadian Energy Pipeline Association's Safety Culture Assessment, an industry-wide employee survey based on the National Energy Board Safety Culture Framework. Results of the survey help identify those areas where Canada's pipeline industry is performing well in

terms of safety culture and where improvement is needed. Both LP and MP scored in the “best in class” range for all categories of the framework.

We also established a cross-business-segment focus group to develop our own comprehensive risk and safety culture assessment framework to provide information on drivers of safety and operational reliability that will lead to focused improvement initiatives and leadership “calls to action.” Through this initiative, we will conduct a comprehensive evaluation every two to three years, targeted evaluations annually, and ongoing monitoring of trends and behaviors that support or erode safety culture.

DuPont has conducted two risk and safety culture perception surveys (in 2011 and 2013) for us, using a recognized methodology that enabled us to compare Enbridge to other companies in the oil and gas industry, as well as to companies in best-in-class industries. The results of those two surveys indicate that we are on the path to achieving an interdependent risk and safety culture. DuPont will conduct the next survey in the first quarter of 2016. As noted in the preceding paragraph, we will be transitioning to a more comprehensive risk and safety culture framework in the years ahead.

Addressing Human Factors

In 2014, we rolled out an online course throughout the company to provide all employees and contractors with an introduction to and grounding in the concept of human factors and how they can contribute to safety and operational reliability incidents. We require all new employees and provisioned contractors to take the course when they join the company.

Following the positive reception by our employees and contractors, we are building on the foundation created by the course to sustain awareness and understanding of human factors within the organization and our industry through several initiatives:

- We have developed advanced training to help Enbridge investigators learn from incidents, improve operational safety, and better integrate human factors, engineering and organizational factors. The training will result in more consistent investigations across the company.
- In 2015, we produced a series of infographics for our employees and contractors that explore the role human factors played in recent Enbridge incidents. The infographics, which illustrate the actual impact and implications of decisions and actions taken during the incidents, can be viewed on Enbridge’s intranet for employees, are published as posters and presented in departmental safety meetings. This initiative has been well received across the company and will continue in 2016.
- We are involved in developing a Canadian Standards Association (CSA) EXP-248 Pipeline Human Factors Express Document, which will provide guidance on human factors for the pipeline industry. We expect that the document will provide an overview of the tools and techniques for human-factors assessment and mitigation along the lifecycle of a pipeline, and help establish benchmarks for human error.

Promoting Driving Safety

Because driving is one of the most significant and pervasive hazards our team faces every day, both on and off the job, and with its potential to affect all of our employees, driving safety is an ongoing area of focus for us.

In 2015, we rolled out our enterprise-wide DriveWISE campaign as one component of a broader effort to enhance safe driving performance across the company. Built around the acronym WISE, the campaign focuses on four key behaviors that contribute to improved driving safety: **W**alk around your vehicle; **I**mmerse yourself in the safe driving mindset and plan your route; **S**ecure all items in the car, including yourself; and **E**xit your parking spot safely. The campaign makes use of multiple internal communications channels, including toolkits for people leaders to use in engaging their teams, posters, intranet content, videos, and digital signage in our offices. We will continue to assess

the effectiveness of the campaign, conduct ongoing communication to sustain awareness of and promote the DriveWISE behaviors, and will provide employees opportunities to share and reinforce the DriveWISE campaign.

Going forward, we will continue to closely monitor motor vehicle incident frequencies and causes, gauge the impact of all our initiatives and determine the need for additional initiatives.

Also in 2015:

- We became an active participating member in the Network of Employers for Traffic Safety (NETS). Our membership provides us the opportunity to conduct industry benchmarking in driving safety and evaluate fleet and journey management programs of other NETS members. To participate in the NETS “Strength in Numbers” Fleet Safety Benchmark Program, we provided our motor vehicle incidents data for 2014. In their Fleet Safety Benchmark Report for 2014 data, we ranked in the top quartile of all participating companies.
- GD, in addition to promoting the company-wide DriveWISE campaign, introduced a Driver Safety Challenges course—an innovative way to keep preventable Motor Vehicle Incidents (MVI) and safe driving habits in the spotlight. Designed to address the four top causes of preventable MVIs and raise hazard awareness, the course required drivers to complete a number of challenging maneuvers.

Recognizing Employee Initiatives

A key way to build and reinforce a positive risk and safety culture is taking time to recognize members of our team who are demonstrating individual and grassroots safety leadership and interdependence.

In an effort to better communicate and share these positive safety examples through the company, in 2015, we began publishing safety profiles of employees on our intranet. Every two weeks, we profile a member of the Enbridge team and what they are doing to support a strong and interdependent risk and safety culture.

With almost 11,000 employees and contractors across the company, we are tapping into the “power of the crowd” to help us identify candidates for the safety profiles. Employees and contractors can self-identify and provide the subject matter for a potential safety profile by responding to a questionnaire. Alternatively, they can email the questionnaire to co-workers who they think are grassroots safety leaders and request that they participate.

For its part, GD has launched a safety recognition program to highlight the positive behaviors that are helping GD reach important safety milestones. Each year, GD recognizes one field employee and one office employee as Safety Ambassadors for their leadership in making positive changes to GD’s risk and safety culture. All nominated employees are recognized as Safety Champions. GD also recognizes depots for reaching three, five or 10 years without a lost-time injury—a pillar of GD’s employee recognition program.

Remembering Disastrous Incidents through Stories

In 2014, we introduced a series of foundational safety stories to our employees and contractors. The stories focus on four disastrous incidents from our past that killed and injured members of the public and of our team, disrupted lives and communities, and damaged the environment.

Each quarter we pause, across the company, to remember these incidents on their anniversaries to remind ourselves of the consequences of failing in our duty to be safe. For example, on November 28, 2015, we remembered the eighth anniversary of the Milepost 912 incident, in which two members of our team perished in a fire that erupted during pipeline repair work near Clearbrook, Minnesota.

Since we launched the stories last year, we have asked all Enbridge leaders to have meetings to review and discuss each story with their teams as we approach the anniversary of each incident. The foundational stories are intended to

become a safety touchstone for every individual at Enbridge and an opportunity for us to lead our teams in an exploration of what safety means for us as an organization.

Also, every year in April, employees of our GD business segment take time to come together for a Safety Stand Down. The event is coordinated around Canada's annual National Day of Mourning, when people across Canada stop to remember workers killed, injured or disabled on the job. In 2015, the Stand Down focused on a GD incident—another demonstration of our commitment to turn incidents into opportunities to learn and share experiences.

Looking Out for Safety

We all contribute to our safe and reliable operations by keeping safety as our primary consideration in all actions and decisions.

In addition, we all contribute by performing proactive formal safety observations on each other to provide a systematic way to address and measure both desired and at-risk behaviors. Properly conducted safety observations give effective, interdependent and results-oriented feedback to drive improvement. In 2015, employees and contractors made and submitted approximately 174,000 safety observations.

Employee Training

Each of our business segments has evaluated the training that its employees need to safely perform their jobs and has created position-specific descriptions. Using this information, we have created training matrices that enable us to ensure that each employee has the necessary training and knowledge.

Our employees spent approximately 140,000 hours in 2015 building their safety knowledge and skills. Over the past nine years, we have more than tripled the average number of environment, health and safety (EH&S) training hours per employee.

Year	Total EH&S Training Hours	EH&S Training Hours/Employee
2007	25,015	4.9
2008	30,418	5.4
2009	38,007	6.5
2010	31,620	5.2
2011	36,567	5.6
2012	101,503	13.7
2013	161,960	19.9
2014	162,080	18.3
2015	139,123	15.9*

* In 2014, we rolled out two new courses that were mandatory throughout the company (Human Factors and Lifesaving Rules). Because employees must renew these courses only every two to three years, our total EH&S training hours and EH&S training hours per employee were lower in 2015 than 2014.

Joint Management-Worker Health and Safety Programs

One hundred percent of the company's total workforce is represented in formal joint management-worker health safety programs.

In 2011, each of our operating business segments undertook an initiative to enhance their risk and safety culture. In 2012, the business segments established Health & Safety Committees to promote engagement at all levels and to establish clear lines of communication for decision making.

The risk and safety culture perception survey conducted by DuPont in 2013 measured the progress of this initiative. The results indicated that we had increased our risk and safety culture strength by 13 percent since 2011, thanks in part to our Health & Safety Committees. DuPont will conduct its next survey in the first quarter of 2016.

Contractor Safety Management

We are committed to protecting the health and safety of all individuals affected by our activities, including our contractors. We view our contractors as our extended partners. We want them to view safety the way we do, and aim to ensure that they uphold our core values of Integrity, Safety and Respect, our Health and Safety Principles and our Six Lifesaving Rules. *For more information, please see the Sustainable Supply Chain & Procurement section of this report.*

Executive Field Visits

Our senior leaders demonstrate their personal commitment to safe and reliable operations through field visits. Over the course of 2015, our executive leaders, including those outside of the operational business segments (LP, GPP&ES and GD), participated in 155 field visits across the organization, connecting with hundreds of employees. This is a new record high for the field-visit program and nearly doubles the number of field-visit submissions in 2013 when the program first began.

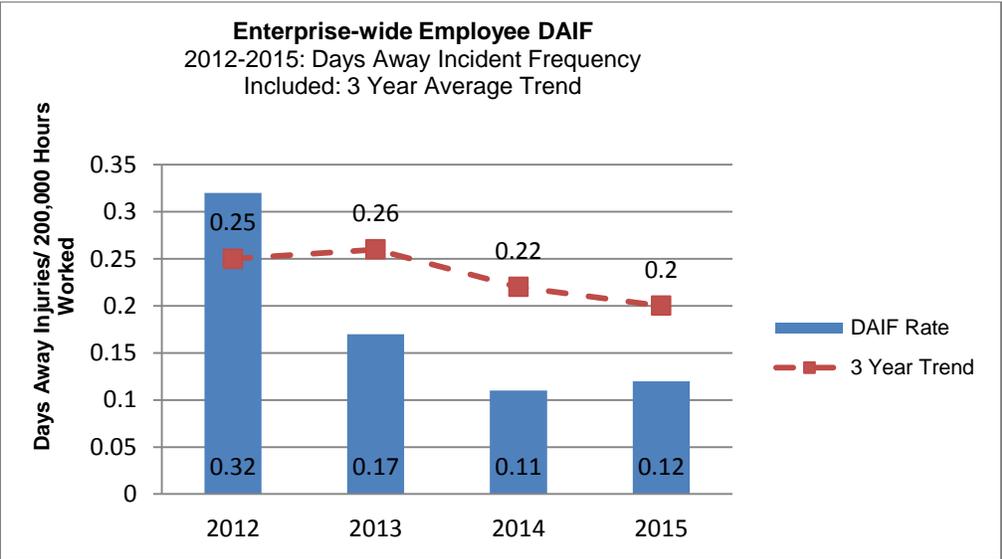
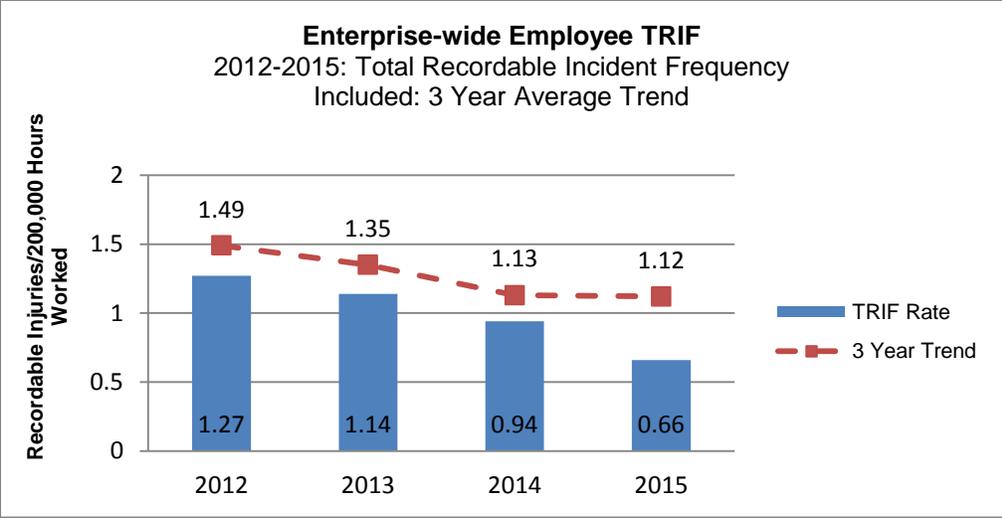
During these visits, executives meet with employees in field locations to better understand the work our employees are doing, hear about challenges they face in their daily activities, talk about safety, and identify areas where we can improve our safety practices and performance.

Ensuring Safe Workplaces and Communities

Our 2015 Health and Safety Performance

Our health and safety performance in 2015 included the following metrics:

- 60 recordable employee injuries (compared with 77 in 2014 and 82 in 2013)
- 0.66 recordable injuries per 200,000* employee hours worked (compared with 0.94 in 2014 and 1.14 in 2013, and representing an improvement to our six-year average of 1.13)
- 0.12 lost-days injuries per 200,000* employee hours worked (compared with 0.11 in 2014 and 0.17 in 2013, and representing an improvement to our six-year average of 0.20)
- There were no employee or contractor fatalities



*The formula for calculating injury rate (whether it be recordable injuries or lost-days injuries) is: number of injuries X 200,000 / employee hours worked, where the 200,000 hours in the formula represents the equivalent of 100 employees working 40 hours per week, 50 weeks per year.

In 2015, our employees worked more than 18 million hours, which is an increase of almost two million hours above the number they worked in 2014 (16.4 million hours). While our 0.66 recordable injuries per 200,000 employee hours worked and 0.12 lost-days injuries per 200,000 employee hours worked rates did not equal zero, they were the lowest that they have been since we began tracking them—all during a time when the number of hours that employees worked increased.

We report all incidents, whether regulators consider them to be recordable or not, to local supervisors, as well as to our Health and Safety Department for tracking, trending and communication regarding lessons learned. In addition,

every quarter, we analyze the nature of any injuries that took place, as well as the type and root cause of the incidents that led to the injuries. Our analysis leads us to take specific actions to drive down incidents and sustainably improve our safety performance.

In 2015, our Gas Distribution business segment (GD) demonstrated strong evidence of its progress toward the goal of being 100 percent safe. In April 2015, for the second consecutive year, the American Gas Association recognized it as an industry leader in employee safety with the Safety Achievement Award for the lowest Days Away, Restricted or Transferred (DART) incident rate among companies of similar size and type. Then, on October 23, 2015, GD reached the milestone of two years without a lost-time injury. Although some operating groups within GD have gone for longer periods of time without a lost-time injury, this is the longest continuous period that the entire business segment has realized this result.

We have included all of Enbridge's health and safety metrics (enterprise-wide and by business segment) in our Enbridge 2015 Health & Safety Metrics spreadsheet, a link to which is available on csr.enbridge.com.

Absenteeism

Our absentee rate in 2015 was 4.65 days absent per employee, compared with 4.23 days in 2014 and 3.86 days in 2013. We use the "average number of days absent per employee" metric because we do not track scheduled hours in our Human Resources system.

Enbridge's Absentee Rate (2013 – 2015) Average Number of Days Absent per Employee



Employee Wellness Program

In 2014, we implemented a Wellness Program in the U.S. that provides employees with the tools, resources and financial incentives to promote and reward healthy behaviors. Then in May 2015, we launched a Canada-wide wellness program, including several enhancements to align with current best practices. In 2016, we will harmonize the two programs. *For more information, please see the Employee Relations section of this report.*

Psychological Health and Safety in the Workplace

The Mental Health Commission of Canada (MHCC) has indicated that one in five Canadians will personally experience a mental health problem or illness in their lifetime. Mental problems and illnesses impact productivity and, potentially, worker focus on the job. Supporting both the physical and mental health of employees will help support our goal of 100 percent safety.

Our GD business segment has committed to implementing CSA-Z1003, the “National Standard of Canada for Psychological Health and Safety in the Workplace.” Implementing the standard will help organizations reduce the risks of psychological harm, promote psychological well-being and support employees with mental health issues in the workplace. GD is also one of approximately 40 Canadian organizations participating in an implementation case study being run by the MHCC.

During 2015, GD raised leadership awareness of the standard and the workplace factors that impact mental health. Ongoing communication helped raise employee awareness and reduce stigma related to mental health. To engage employees in learning how to take care of their own mental health and support others, GD also leveraged Enbridge’s new Wellness Portal and Mental Health Mindfulness Workshop Challenge, which more than 1,250 Enbridge employees completed.

Public Safety

We take customer and public safety seriously and believe it is our obligation to raise the bar in both areas.

Customer research by our GD business segment indicates that GD’s Safety Index is a strong 83 percent. This index covers customer perceptions in various safety aspects, including that “employee and customer safety are top priorities,” “we promote the safe use of natural gas” and “we act safely in our distribution of natural gas.”

GD also executes a series of public awareness programs, including carbon monoxide awareness and Call Before You Dig (Ontario One Call) campaigns, an annual scratch and sniff bill insert, and stakeholder outreach to protect those who live and work around GD’s system.

GD’s programs and campaigns have received industry recognition. In 2015, GD received the Canadian Gas Association Award for Public Safety Leadership for its Six Second Safety campaign—an engaging, dedicated website and public awareness campaign designed to educate the public on natural gas safety. Twenty brief natural gas safety-tip videos can be viewed on the website and shared through various social media channels. The campaign has resulted in 15 million online ad impressions and 30,000 Twitter engagements, and more than 2,000 new Twitter users followed our account. *For more information, please see the Emergency Preparedness & Response section of this report.*

2014 Enbridge Safety Report to the Community

In September 2015, we released our 2014 Enbridge Safety Report to the Community, with an online publication at enbridge.com and hard-copy distribution to thousands of our neighbors near our pipelines and facilities across the Canada and the U.S. The report includes stories that highlight the important work being done by our team members, and individuals and groups out in the community.

Industrial Hygiene Programs

We maintain industrial hygiene programs under which we identify stressors (such as airborne contaminants, noise, heat stress) in our workplaces, and recommend steps to prevent injury and illness. We also regularly assess the effectiveness of the various controls we use to protect workers, including engineering controls, administrative controls and personal protective equipment.

EMERGENCY PREPAREDNESS & RESPONSE

OVERVIEW

As part of our Path to Zero, we believe all incidents can be prevented, and that no release is acceptable. But if incidents do occur, we are ready to respond safely and effectively, in partnership with local first response agencies and regional and national authorities.

We maintain strong emergency preparedness and response systems. We regularly test and continuously improve our tactics and plans with local first responders, emergency management officials and government officials. In the event of an incident, Enbridge personnel and contractors are prepared with robust and tested emergency response plans, training and equipment to ensure a safe, rapid and effective response.

MANAGEMENT APPROACH

Procedures

When we experience an incident, we activate our emergency response procedures, which include shutting down and isolating the impacted asset, notifying the appropriate government and regulatory agencies, and managing potential safety and environmental impacts.

In responding to spills and leaks of liquid products, our Liquids Pipelines (LP) business segment takes the following steps:

- ensure the safety of the public, employees and contractors, and first responders,
- enter into unified command with other emergency responders and agencies,
- contain, recover and safely remove the product and take care to protect the surrounding environment,
- work closely with experts to minimize impacts on wildlife,
- recover a high percentage of the product,
- dispose of contaminated water, soil and vegetation at waste disposal facilities,
- establish what needs to be remediated, based on a comprehensive cleanup plan, environmental testing and monitoring, physical inspection, and guidance from government regulators,
- develop and execute rehabilitation plans for water, soil and vegetation with the input of regulators and affected stakeholders, and
- implement corrective actions and apply lessons learned to our wider system, and share learnings internally and with industry.

In the event of a natural gas emergency, our Gas Distribution and Gas Pipelines, Processing & Energy Services business segments, GD and GPP&ES, respectively, typically take the following steps:

- identify the location of the leak,
- ensure the safety of the public, employees and the environment,
- engage in unified command with other first responders,
- isolate the leak,
- repair the problem and verify that the repair has corrected it,
- remediate the site, and

- apply lessons learned, and share learnings internally and with industry.

Our Green Power, Transmission and Emerging Technology group (GPT&ET) follows different steps because their projects have different emergency exposures from our pipeline assets. In that area, our most significant emergency exposure would involve worker injuries in a solar or wind facility. In an emergency situation, GPT&ET would take the following steps:

- ensure the safety of the public, employees and contractors,
- engage in unified command with other first responders,
- rescue and remove the injured worker from the facility, and
- apply lessons learned, and share learnings internally and with industry.

Each business segment is prepared to respond to incidents. However, if the capacity of the business segment or region is exceeded or they need additional support, the Enbridge Enterprise Emergency Response Team and the Enbridge crisis management team are available to provide support.

Maintaining Effective Emergency Preparedness

Our people, management systems, planning, investments in equipment and training, and public awareness programs help us maintain effective emergency preparedness programs.

People

We have dedicated individuals to support our emergency preparedness and response and crisis management systems across our company. In each business segment, senior leaders are responsible for overseeing emergency response programs and plans, and ensuring that our various operations are prepared for potential incidents. We also have hundreds of people across our systems, including pipeline maintenance crews and equipment technicians, who are trained to respond at any time.

Management Systems

Our approach to emergency preparedness and response is supported by our use of management systems that set out policy expectations, outline roles and responsibilities, and provide operating guidelines on how to prepare for and respond to emergencies. In 2015, LP implemented a dedicated Emergency Management System.

Planning

We have comprehensive emergency response action plans in place to help us respond rapidly anywhere in the company, should an incident occur. We review and update these plans annually. In 2015, LP completed a full update of its emergency plans in Canada to the Integrated Contingency Plan standard, aligning all response plans across its system in Canada and the U.S.

We have established a multi-tiered system that enables us to address varying levels of emergencies in our pipeline assets. We have also defined roles and responsibilities for those who would be involved, including:

- field response teams,
- regional incident management teams,
- incident support teams,
- Enbridge Enterprise Emergency Response Team, and
- enterprise crisis management team.

If an incident were to escalate, the enterprise crisis management team, which consists of senior executives from across the company, would work closely with the business segment to provide strategic support to reduce the impact of the crisis.

Each of our business segments has detailed emergency preparedness and response plans in place to guide our emergency response, minimize the impact of an incident and comply with regulatory requirements. We also strategically locate emergency response equipment across our systems for quick deployment, and ensure that standby personnel, including employees, contractors and response organizations, are available.

Our emergency plans are customized for different operations. In our GPT&ET group, for example, we work closely with contract service providers and local first responders to carry out emergency response at our wind and solar facilities.

Investments in Equipment and Training

Each year we invest in emergency response equipment, and train our employees and contractors throughout Canada and the U.S. The training involves staging hundreds of emergency response exercises, including equipment deployments, to test and refine our response plans. Often this training includes third-party observers and participants such as regulators, public officials and first response agencies so that our emergency preparedness is transparent and well coordinated.

Public Awareness Programs

Our commitment to emergency preparedness and response also includes our work to ensure that our neighbors are aware of our operations, and how to live and work safely near them. Through our Public Awareness Programs, we educate landowners, residents, businesses, farmers, excavators, public officials and first responders on how to recognize and report incidents, and instruct them on how to stay safe if an incident occurs.

Stakeholder Groups

Community Neighbors

Our public awareness outreach includes community neighbors (residents, landowners and business owners), local public officials, excavators, farmers, schools and anyone else who may work or live near our operations. In each case, we work with our neighbors and communities to ensure they are aware of our systems and what they should—and should not—do in the event of an emergency.

First Response Agencies

Maintaining strong relationships with emergency responders in the areas we operate is a priority for us. We meet regularly with first responders—including 9-1-1, police and fire departments—to share our emergency response procedures, and identify the roles and responsibilities of external responders who would support us in the event of an incident.

Through our meetings, we also encourage applications to our Safe Community program, which is one of our flagship community investment programs. *For more information, please see the Community Investment section of this report.*

And, we promote our Emergency Responder Education Program (EREP), which offers free, unlimited online training to first responders near our pipeline corridors. In Canada and the U.S., LP and GPP&ES maintain a password-protected website that provides emergency responders with access to specific emergency response plans for their area.

Industry and Emergency Response Associations

We actively participate in industry associations focused on advancing emergency preparedness and foster relationships with organizations that are connected to key emergency response audiences. For example, we have partnered with the U.S. National Association of State Fire Marshals to develop a free online training program for first responders near our pipeline systems. We also have worked with the National Emergency Number Association to develop online training specific to 9-1-1 dispatchers and call-takers. In addition, GD partners with the Ontario Fire Marshal's Public Fire Safety Council on education campaigns to promote public awareness of fire and home safety, including carbon monoxide detection and prevention.

STRATEGIC PRIORITIES

- **Continue to advance our initiatives aimed at improving our emergency response and preparedness.**
- **Continue to exercise leadership through our work with industry associations.**

2015 PERFORMANCE

KEY FACTS

In 2015, we ran **more than 360 drills, exercises and equipment deployments** to test and sharpen our emergency preparedness.

We have **more than 1,400 employees trained in the Incident Command System.**

Approximately 93 percent of the 1,700 employees who must have up-to-date emergency response training met the requirement.

Emergency Response and Preparedness Initiatives

The following are some of the initiatives we undertook in 2015 to boost our emergency response and preparedness. *For information about initiatives related to our Public Awareness Program, please see the Stakeholder Engagement section of this report.*

Enbridge Enterprise Emergency Response Team

The Enbridge Enterprise Emergency Response Team is a cross-business-unit group trained to respond to large-scale events in Canada and the U.S. that would require more resources than a single Enbridge operating region or business segment could provide. In 2015, the team included 175 employees from across the company.

Since its inception in 2012, the response team has conducted annual training exercises involving all of our major business segments, emergency response contractors and consultants, as well as local, state, provincial and federal emergency response and government agencies.

On September 24, 2015, members of the response team gathered at the Straits of Mackinac in northern Michigan for an emergency response exercise. Hosted by LP, the events tested our emergency response plans alongside the U.S. Coast Guard, the U.S. Environmental Protection Agency, the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration, as well as state agencies and local first responders. The exercise, which simulated a release of 4,500 barrels of light crude oil, involved more than 700 individuals representing federal, state, local community and response agencies. We led the exercise with the support of a multi-jurisdictional planning team. Numerous types of response, recovery and containment equipment were deployed in the Straits—including eight Coast Guard vessels, four skimmers, two vacuum trucks, 12 small boats and more than 5,000 feet of boom—to support tactical operations identified during the exercise planning process.

The exercise planning team consisted of company employees; federal, state and local agencies; law enforcement; area tribes; and our key contractors. Exercise planning focused on command, control and coordination of a simulated event, and meeting the National Preparedness for Response Exercise Program guidelines. Additional elements of exercise design targeted on-water recovery, shoreline protection and cleanup, air monitoring and wildlife recovery.

Emergency Response Exercises

To keep our employees and contractors prepared, we stage exercises and drills in all our operating regions. These include:

- notification drills,
- tabletop exercises,
- equipment deployments,
- functional exercises, and
- full-scale exercises involving equipment, Enbridge employees and contractors, local first responders and other third-party agencies.

During these exercises, our employees and contractors—often in concert with local and regional first response agencies—participate in activities focused on specific objectives. During these exercises, local first responders, agencies, government and industry representatives often observe the process and have a firsthand look at how we are prepared to react in the event of an incident. The exercises also give them the opportunity to provide feedback on how they would respond or assist during a pipeline emergency.

In 2015, we staged more than 360 drills, exercises and equipment deployments across our company.

In addition to the large exercise at the Straits of Mackinac, other highlight events included:

- In February, GD staged a day-long exercise in Brampton, Ontario, to test collective response to a large-scale emergency incident involving a high pressure pipeline. The joint exercise included about 65 participants, including first responders, GD employees, the National Energy Board and the city's Emergency Management Office.
- In May, LP held a full-scale emergency response exercise on the Souris River, near Towner, North Dakota, simulating third-party damage to a pipeline. The two-day exercise tested our ability in different areas, including equipment deployment and public notification, and drew more than 150 Enbridge personnel and contractors from across Canada and the U.S. Local emergency response organizations, including the U.S. Environmental Protection Agency, the North Dakota Department of Health, and North Dakota Game and Fish, also took part.
- In October, local GPP&ES plant operations, field operators and third-party responders, including county emergency management, participated in an emergency exercise at our gas plant in Zybach, Texas. The half-day event tested their ability to respond to a tank truck collision and explosion.

- Our GPT&ET group participated in more than 16 emergency drills at our wind farms and solar facilities in Canada and the U.S. In April, for example, we took part in a drill at our Blackspring Ridge wind farm in Alberta. Led by the project contractor, the exercise simulated the response from local fire and ambulance services to an emergency situation involving the rescue of an injured worker from a wind turbine.

Incident Command System Training

We use the Incident Command System (ICS), an emergency response methodology used across North America by military, first response agencies, and local, state, provincial and federal governments. ICS enables our employees and contractors to react quickly and efficiently to the emerging issues and challenges that are inevitable in a real-life emergency response.

We provide ICS training to anyone who could fill a leadership and response role during an incident. We have trained more than 1,400 of our employees in the ICS methodology, and continue to train more.

Training for Employees who hold Non-Operational Roles

With a workforce of almost 11,000 employees and contractors across Canada and the U.S., all of our employees play a vital role in pipeline safety and emergency response. As such, we have developed an online course to provide emergency response training to employees who hold non-operational roles, but who could be called upon to play a supporting role in an emergency. To be launched in 2016, the course will cover:

- the products we transport and their associated hazards,
- leak indicators for liquids and natural gas pipelines,
- what to do in an emergency,
- ICS methodology,
- personal protective equipment, and
- the role of emergency responders in an incident.

Safe Community Program

One of our flagship community investment programs is our Safe Community program, under which we provide grants to law enforcement agencies, firefighters, emergency medical services, emergency management, 9-1-1 and other related health providers who would respond to emergency situations in or near communities where we have operations. The grants help eligible organizations acquire new safety-related equipment, obtain professional training and deliver safety education programs in their communities. *For more information, please see the Community Investment section of this report.*

Emergency Responder Education Program

Since 2012, we have offered the Emergency Responder Education Program (EREP) to first responders to train them on how to safely and effectively respond to pipeline emergencies. EREP is based on Pipeline Emergencies, an industry-leading pipeline emergency response training program that the U.S. National Association of State Fire Marshals developed.

Available online to emergency response organizations in the U.S. and Canada, EREP uses 3D graphics to engage and prepare emergency responders to respond to a pipeline emergency. It includes information on ICS and on how we would work with emergency responders in the event of an emergency, as well as tactics and practice scenarios to help first responders visualize potential response situations.

Over the last three years, about 2,300 emergency responders, Enbridge employees and other interested parties in the U.S. and Canada have completed EREP training.

We have also expanded this program with a training module targeted at 9-1-1 call center personnel, so that they are equipped, if necessary, to initiate a safe and effective response to a pipeline incident. Developed in partnership with the National Emergency Number Association, the module includes background on how to recognize leak indicators, how to contact pipeline operators, and how to relay information to emergency responders and the public. Since introduction of the expanded training in 2014, about 1,530 dispatch and call center personnel, emergency responders, Enbridge employees and other interested parties have completed the module (approximately 1,230 U.S. and 300 Canadian).

Natural Gas Training for Fire Departments

It is critical that first responders know how to properly respond to natural gas-related emergencies so they can protect the public, mitigate property damage and assist GD crews once they are on site. To that end, GD trained more than 280 firefighters in 2015 through its new first responder natural gas awareness program, developed in association with the Canadian Gas Association.

Leadership through Industry Associations

Through industry associations, we exchange best practices with other operators and participate in committee activities and joint exercises for the purpose of advancing safety and emergency preparedness.

In the U.S., we actively participate in public awareness groups sponsored by the American Petroleum Institute (API), the Association of Oil Pipe Lines (AOPL), the Interstate Natural Gas Association of America (INGAA), and the Common Ground Alliance. In Canada, we are a member of the Canadian Gas Association (CGA) and the Canadian Energy Pipeline Association (CEPA).

Enbridge is also a member of the Pipeline Operators Safety Partnership, a group of pipeline operators who work together to build relationships with first responders and promote pipeline safety at annual conferences. The group has previously participated in conferences such as Fire-Rescue International, the Fire Department Instructors Conference, and the National Emergency Number Association annual conference.

In addition, GD is an associate member of the Northeast Gas Association. Membership in this association gives GD access to additional staff and resources from nearby U.S. gas utilities in the event of a major emergency on its natural gas distribution system.

In 2015, we advanced a number of collaborative initiatives through industry associations:

- Through an API committee involving other pipeline companies and stakeholders, we helped to lead the development of a *Recommended Practice for Onshore Hazardous Liquid Pipeline Emergency Preparedness and Response*. The document (API RP 1174) will be used to promote continuous improvement of emergency planning and response processes, based on lessons learned from exercises and real events.
- In partnership with API, AOPL and INGAA, we helped to develop a series of pipeline educational videos for emergency responders.
- As part of CEPA's emergency response working group, we helped develop response time guidelines and an industry-wide mutual aid agreement for pipelines. This agreement will assist companies in requesting assistance from other pipeline operators in the case of an incident.

- Through CEPA, we supported commissioning of an independent study by the Royal Society of Canada on the behavior of crude oil spills in different water environments. In response to a request from CEPA and the Canadian Association of Petroleum Producers, the Royal Society of Canada convened an expert panel to review scientific knowledge and conduct research on a wide range of crude oils to further examine their behavior in aquatic environments. Completed in 2015, the study concludes that oil spills are rare and, despite the importance of oil type, the overall impact of an oil spill depends mainly on the environmental conditions and time of response. It also sets out a framework of additional research that we hope will help to further improve our leading spill prevention and emergency response capabilities.
- Working with members of the CGA, GD revised our natural gas awareness program for first responders to create a standardized Canadian training program. Gas distribution companies are delivering the CGA-endorsed program to local fire and police departments across Canada.
- In collaboration with CGA, GD also ran a mutual aid exercise in November simulating a large-scale natural gas outage. The day-long exercise saw gas utilities across Canada working together to respond to a significant (simulated) emergency that would have required additional resources.

STAKEHOLDER ENGAGEMENT

OVERVIEW

Because our stakeholders give us the social license we need to operate our business, we are committed to engaging with them in a respectful manner, and to building mutually beneficial relationships with them.

MANAGEMENT APPROACH

Policy

The manner in which we engage with stakeholders is governed by our Integrity, Safety and Respect core values, and by our [CSR Policy](#), the Stakeholder Relations section of which states that:

Enbridge will engage stakeholders clearly, honestly and respectfully. Enbridge is committed to timely and meaningful dialogue with all stakeholders, including shareholders, customers, employees, indigenous peoples, governments, regulators and landowners, among others.

Stakeholders

For the purposes of this section of Enbridge's *2015 CSR & Sustainability Report*, our stakeholders include the individuals and groups who live and work near, or who are affected by, our pipelines, power lines, operations and facilities. They include landowners, communities, governments and regulators, as well as the individuals and organizations with whom we work to prepare for and respond to emergencies.

While those with whom we engage include Aboriginal and Native American individuals and groups in Canada and the U.S., because these parties have distinct rights, we recognize them as being separate from other stakeholders. *For more information, please see the Aboriginal & Native American Rights & Engagement section of this report.*

Approach

While energy and infrastructure issues are often regional and national in scope, we have learned that they are also local. As such, we maintain an overarching approach to stakeholder engagement, and adapt it based on geographic region, the project in question, local issues, and stakeholders' proximity to our projects and operations.

We also endeavor to meet or exceed the regulatory requirements governing our public engagement and consultation practices.

We engage with stakeholders early on in our planning process so that we can effectively address or resolve issues from the onset, and adjust plans wherever feasible. We also endeavor to engage with stakeholders throughout the entire lifecycle of our projects and, whenever possible, involve them through community investment and economic inclusion opportunities. We know that, in all of our interactions with stakeholders, transparency and accountability are key to developing clear, honest, respectful and mutually beneficial relationships. We also know that stakeholder engagement means more than listening. It means doing something about what we hear.

Public Information Programs and our new Regional Engagement Plans

As soon as we propose a project—whether it be a pipeline, storage tank, power transmission line or renewable energy facility—we create a Public Involvement Program (PIP) for it. A PIP is a proactive, two-way communication and consultation strategy designed to help us understand our stakeholders, obtain their input, answer their questions, learn about community interests and perspectives and, when needed, implement changes. A PIP is a living document that we can amend to reflect strategic changes. It is an integral part of our overall plan for each project we undertake.

To ensure that our PIPs are appropriate for the projects we create them for, we reach out to our stakeholders and their communities to get to know them, the local environment and the potential issues and risks associated with each of our projects. We conduct our outreach through surveys, focus groups and meetings with community leaders, as well as through newsletters, posters, regulatory compliance mailings, telephone calls, emails, advertising, social media updates and community open houses.

In Canada, federal regulations require us to periodically conduct socio-economic baseline studies, which help us align our community investments and economic inclusion opportunities with community interests and needs. With the knowledge we gather through all of these means, we create detailed community profiles.

As our projects become operational, our ongoing engagement is guided by broader Regional Engagement Plans (REPs). Our REPs help us consistently coordinate our stakeholder engagements across our company, and take the entire region in which an operation is situated into account. Our REPs also enable us to be highly accountable for—and responsive to—agreements and opportunities, as well as to grievances, concerns, issues and requests. And they ensure that our engagement is ongoing and meaningful to stakeholders and regulators. *For more information, please see 2015 Performance in this section of this report.*

Public Awareness Programs

As is the case with all pipeline operators in Canada and the U.S., we are legally required to maintain Public Awareness Programs (PAPs) to help keep our stakeholders safe and informed.

Our Public Awareness Programs (PAPs) consist of initiatives that improve stakeholders' awareness of pipelines in their communities, and that keep them informed about:

- where our pipelines are located,
- what products we are transporting in them,
- how they can work safely near our pipelines,
- how they can recognize the warning signs of a potential pipeline emergency,
- pipeline safety procedures in the event of an emergency, and
- how they can contact us.

Our PAPs also help us ensure that stakeholders know what they need to do before they can safely dig. One element in our PAPs is our participation each April in Safe Digging Month, during which we promote the Call/Click Before You Dig message (at GD through an annual scratch and sniff bill insert) and display the logo on our facilities.

Under our U.S. PAPs, we raise awareness of the National Click Before You Dig website or Ontario One Call message through our annual participation in 811 Day each August 11. Our involvement in 811 Day involves running online advertising in areas that have had digging-related incidents and near misses, sending executive e-mails to our employees, posting intranet articles and sharing information through social media.

Through our PAPs, we meet—and in many cases exceed—all legal requirements. Through our PAPs, we also directly support Enbridge’s emergency preparedness & response efforts. *For more information, please see the Emergency Preparedness and Response section of this report and 2015 Performance in this section of this report.*

Responding to Stakeholder Grievances, Concerns, Issues and Requests

We recognize that some stakeholders strongly oppose our projects, and respect their desire to voice their concerns. We welcome respectful dialogue, and take all stakeholder grievances, concerns, issues and requests seriously.

We offer stakeholders a variety of methods by which they can reach us, including toll-free telephone lines, meetings and dedicated e-mail addresses. Our PIPs, REPs and PAPs also include opportunities for stakeholders to access us, and for us to listen and respond to them.

We carefully track all grievances, concerns, issues and requests such that we can effectively follow up, and so that we can incorporate them into our PIPs and REPs. To ensure our tracking is effective, in 2014 and 2015, we began updating the systems that support our work in this area.

One of the updates involved the development—by our Liquids Pipelines business segment (LP)—of a new ProStar complaint-tracking system. The ProStar system, which LP implemented in 2014, uses geospatial cloud and mobile software to automate and streamline our tracking of landowner complaints and link them to our REPs (and PIPs) and land management records.

Measuring Effectiveness

We consider our stakeholders’ support of our projects, operations and business to be the ultimate measure of the effectiveness of our stakeholder engagement. Other measures we use internally to help us gauge our effectiveness include:

- the type and amount of concern or support expressed by elected officials,
- the effectiveness of any conflict mitigation we may have undertaken with stakeholders,
- the general level of support or opposition expressed through any means regarding our projects or operations,
- positive or negative feedback expressed in meetings with community members and other stakeholders,
- media coverage, and
- timely regulatory approvals of our projects.

Our regulators also measure and evaluate the effectiveness of our stakeholder engagement. Canada’s National Energy Board (NEB) conducts at least six comprehensive audits of NEB-regulated companies each year. Each audit focuses on one of the six required areas of a company’s management system: Safety, Environmental Protection, Integrity, Pipeline Crossings and Public Awareness, Emergency Management and Security. The NEB publicly releases the audit results.

In Canada, we also commission outside reviews of our PAPs to obtain recommendations for improvement and to ensure that we are continuously improving the program.

In the U.S., federal regulation requires us to review how we implement our PAPs each year, and to evaluate their effectiveness once every four years. We conduct the PAP effectiveness evaluation every two years using an industry survey that incorporates feedback from emergency responders, public officials, excavators and people who live and work near our pipelines. The survey measures stakeholders’ understanding of pipeline safety and their retention of information they would have received as part of our direct mail program. U.S. government officials pair the survey results with statistics and metrics from our annual implementation review to help determine if our program is effective and to identify any changes needed.

In both Canada and the U.S., we use informal measures of media interest (based on our review of news clippings and social media) to gauge stakeholder interest in topics, such as proposed pipeline construction in a particular area, and to help us develop materials that respond to questions that stakeholders raise through the media.

STRATEGIC PRIORITIES

- **Demonstrate stakeholder accountability and responsiveness through the initiatives in our PIPs and REPs.**
- **Ensure that our stakeholders are aware of our operations, and how to live and work safely near them through our PAPs.**
- **Involve stakeholders through community investment and economic inclusion opportunities wherever possible.**

2015 PERFORMANCE

KEY FACTS

Energy and infrastructure issues are often regional and national in scope. We have learned that, **equally importantly, they are local.**

We know that, in all of our interactions with stakeholders, transparency and accountability are key to developing clear, honest, respectful and mutually beneficial relationships. We also know that **stakeholder engagement means more than listening.** It means doing something about what we hear.

In 2015, we began transitioning from project-related Public Information Programs to broader **Regional Engagement Plans**, which help us more consistently coordinate our stakeholder engagements across our company.

Approximately 95 percent of the lands in Canada on which we will construct the new—and decommission the existing—Line 3 are privately owned by some 1,900 landowners. **In 2015, almost all of them gave us their consent to proceed with the project, which we see as a critical indicator of the effectiveness of our engagement efforts.**

Demonstrating Accountability and Responsiveness through our PIPs and REPs

The following examples illustrate how we demonstrated accountability and responsiveness to our stakeholders through the initiatives in our PIPs and REPs in 2015:

Line 3 Replacement Program

Our \$7.5-billion Line 3 Replacement program (L3RP) will involve replacing the majority of our existing Line 3, which is one of our primary Mainline pipelines running from Hardisty, Alberta, to Superior, Wisconsin, with new pipe. It is the largest project in our history.

Approximately 95 percent of the lands in Canada on which we will construct the new—and decommission the existing—Line 3 are privately owned by some 1,900 landowners. In 2015, almost all of them gave us their consent to proceed with the project, which we see as a critical indicator of the effectiveness of our engagement efforts.

A significant part of our effort involved entering into comprehensive construction and decommissioning settlement agreements with the organizations who represent the landowners, including the Canadian Association of Energy and Pipeline Landowners Associations (CAEPLA), the Manitoba Pipeline Landowners Association (MPLA), and the Saskatchewan Association of Pipeline Landowners (SAPL). The construction settlement agreements set out numerous pipeline construction and operation requirements that we must abide by, including wet soil shutdown procedures, weed management programs and biosecurity agreements for clubroot (a disease that strikes crucifer crops). The decommissioning settlement agreements outline numerous decommissioning procedures we must follow, including depth-of-cover monitoring, subsidence restoration, contamination remediation and integrity dig processes.

Thanks to these agreements, we were able to acquire approximately 98 percent of the lands we need for L3RP without exercising expropriation avenues.

Line 9B Reversal and Line 9 Capacity Expansion Project

Our Line 9B Reversal and Line 9 Capacity Expansion project (Line 9) involved reversing the flow of our Line 9B, a 639-kilometer (397-mile) section of our full Line 9, such that it ran eastward, instead of westward, from North Westover, Ontario, to Montreal, Quebec. The project also involved expanding the capacity of the entire Line 9, which runs from Sarnia to Montreal.

We heard many stakeholder concerns through the extensive engagement process we underwent in advance of receiving National Energy Board (NEB) approval of our Line 9 Reversal and Capacity Expansion project (Line 9) in October 2015, and incorporated many of their concerns into the final project. For example:

- We installed additional remote-controlled isolation valves on Line 9 between North Westover and Montreal.
- We clarified first responders' roles and procedures in our Line 9 emergency response plan.
- We established an Emergency Response Committee with representatives from the Quebec government, the Communauté Métropolitaine de Montréal and the NEB to ensure that our Incident Command Structure aligns with the Quebec Emergency response protocol.
- To meet NEB requirements, we conducted hydrostatic tests on three segments of Line 9, two in Ontario and one in Quebec.

Line 10 Westover Segment Replacement Project

Under our Line 10 Westover Segment Replacement project (Line 10), we are replacing 35 kilometers of existing 12-inch diameter pipe with new 20-inch pipe. By replacing this segment, rather than conducting preventative maintenance on it, we will minimize the degree to which we disturb landowners and the environment along the right-of-way.

To ensure that our Line 10 PIP was as comprehensive as possible, we developed it using our new integrated service delivery model (ISDM), which involves the active participation of internal experts in our Land Services, Law and Regulatory Affairs, Environment, Projects and Operations, and Public Affairs departments.

Our PIP included an identification of Line 10's stakeholders and their issues, as well as the best methods by which we should engage with them. It also included the results of a public opinion survey we had conducted, and a number of lessons that we had learned from other projects.

Using all of the available data, an integrated internal team prepared a robust and consistent consultation program that we are now implementing.

Enbridge Ontario Wind Farm

In December 2013, in response to citizens' concerns regarding the negative health impacts that they perceived that our Enbridge Ontario wind farm (which includes our Cruickshank and Underwood wind farms) was having on their health, municipal representatives of the Municipality of Kincardine considered declaring a state of emergency. In March 2015, Kincardine residents nominated us for the Kincardine Chamber of Commerce Good Neighbour of the Year Award. What happened in the interim is an example of how seriously we take our commitment to responding promptly to stakeholder concerns.

We began our work by hiring a stakeholder engagement advisor, who greatly increased our outreach by attending meetings, organizing tours, preparing newsletters and presenting at conferences and other events. Most importantly, the advisor met regularly with community members to listen to their concerns, and to find ways to resolve them. At present, we have been able to satisfactorily resolve the vast majority of their concerns.

Ensuring Stakeholder Awareness through PAPs

In 2015, we undertook the following initiatives as part of our PAPs:

Emergency Response Ambassador Programs

In the U.S., we have operated our Emergency Response Ambassador Program since 2013 as a way to build meaningful and lasting relationships with emergency responders near our pipelines and facilities. By the end of 2015, we had trained more than 70 employee ambassadors to conduct in-person outreach with emergency responders using a variety of methods, including emergency response presentations, facility tours and tabletop exercises. They have now conducted more than 700 meetings with emergency responders.

Employee ambassadors in Canada also deliver a similar outreach program and, in 2015, they carried out more than 630 visits with municipal officials, first responders and 9-1-1 dispatchers near our liquids pipelines. During their meetings, they provide information about the online training we provide and about our Safe Community Program. *For more information, please see the Community Investment section of this report.*

National Preparedness Month

National Preparedness Month, which runs in the U.S. in September, gives us the opportunity to share important pipeline safety and emergency response information with people who live and work near our operations. To take advantage of this opportunity, each September, we post online banner ads directing stakeholders to pipeline safety information on our website.

Line 9B Reversal and Line 9 Capacity Expansion Project

Emergency preparedness was a key focus of our 2015 stakeholder engagement for our Line 9B Reversal and Line 9 Capacity Expansion project. As part of our efforts, we met individually with municipal emergency managers, fire chiefs and First Nations leaders to listen to their concerns. We also held more than a dozen meetings with committees representing large municipal regions such as the Greater Toronto Area, Kingston, Hamilton and Montreal. In addition, in September 2015, our employees and emergency response contract partners hosted a public event in Mississauga, Ontario, where we demonstrated emergency response equipment and met with local politicians and residents to answer questions. In each case, we focused on transparently sharing information on our emergency plans and showing the depth of our emergency preparedness.

GPP&ES Public Awareness

Employees from our Gas Pipelines and Processing business segment (GPP&ES) regularly visit people who live within the impact radius of our natural gas liquids (NGL) and sour gas (H₂S) pipeline systems in Texas and Arkansas. Through door-to-door visits, they share information on our pipeline systems, how to report a potential emergency incident, and what to do in the event of an emergency. In 2015, GPP&ES staff visited more than 900 homes within the impact radius of our NGL pipelines.

Community Investments and Economic Inclusion

In 2015, we engaged our stakeholders in the following community investment and economic inclusion initiatives:

Sarnia Solar Facility Restoration Project

From 2015 to 2020, we will invest \$100,000 in Return the Landscape, a native plant rescue and restoration organization, such that it can restore habitat on a 200-acre parcel of land on the site of our 1,100-acre Sarnia Solar facility in Sarnia, Ontario. Together, we have developed a five-year plan to create wetlands, expand an existing woodlot, create new woodlots, expand the tall-grass prairies and create the second largest grassland meadow in Lambton County. More than 9,000 trees will be planted. *Return the Landscape* is a non-profit organization that combines education, site restoration and native plant species rescue, and will be bringing school and community groups to the site for environmental education programs.

STARS Donation

Along with providing critical care and rapid transport via helicopter to critically ill and injured patients, STARS operates a Mobile Education Unit (MEU) that provides simulation medical training to first responders in Alberta, Saskatchewan and Manitoba. In 2015, we donated \$25,000 to STARS to enable it to offer the MEU to first responders along 21 of our right-of-way communities in Canada over the next three years.

Ecofootprint Grant Program

In support of our Sandpiper Pipeline project and our L3RP, in May 2015, we launched our Ecofootprint grant program, under which we provide funding to non-profit organizations, Native American tribes, state government agencies, local governments and post-secondary academic institutions in North Dakota, Minnesota and Wisconsin to help them protect and restore the natural environment. The grant program will provide up to \$1 million to these organizations over three years.

U.S. National Fish & Wildlife Foundation Donation

In 2015, we continued our support of a range of projects along our U.S. pipeline systems through our \$125,000 donation to the U.S. National Fish & Wildlife Foundation (NFWF) National Wildlife Refuge Friends Program. Our donation enables the program to award small (\$1,500 to \$10,000) grants to organizations involved in stewarding the natural resources in the National Wildlife Refuge System.

CUSTOMER RELATIONS

OVERVIEW

We strive to be the leader in all aspects of our business, including customer service. We have a wide range of customers—from energy producers shipping their products on our oil and gas transportation networks; to refiners and processors; to the residential, commercial and industrial customers who consume the natural gas we distribute—and we seek opportunities to partner with, and add value for, them.

MANAGEMENT APPROACH

We fulfill our commitments to our customers by ensuring the safety of our systems and delivering the highest levels of reliability; by making sure we are efficient so that our customers pay the lowest practical costs for our services; and by delivering our growth projects on time and on budget, while attaining the high standards for safety, quality and environmental and regulatory compliance. Enbridge Gas Distribution (EGD) also helps its natural gas customers adopt energy-saving equipment and practices to reduce both their natural gas consumption and their costs.

Our customer relations teams across the company aim to provide consistent and reliable service at all times. They are constantly looking for opportunities to improve by:

- listening to customers to make sure they understand their needs,
- proactively bringing important information to customers' attention,
- being responsive to them and addressing issues effectively and in a timely fashion to our customers' satisfaction.

Customer Relationship Management

We collect customer-relevant information using Customer Relationship Management systems operated independently by our business segments. Given each business segments' unique customers, our decentralized approach allows us to provide specific, tailored services to meet our customers' needs. For example, EGD's primary customer database system is its Customer Information Billing System, which holds customer and premises information and handles billing and collections.

Satisfaction Measurement

EGD measures customer satisfaction by assessing customer perceptions of its service performance on a wide range of customer touch points. In 2015, EGD achieved 79 percent on its Customer Satisfaction Index, compared with 77 percent in 2014 and 78 percent in 2013.

While our Liquids Pipelines business segment (LP) did not conduct any formal surveys in 2015, LP held more than 500 meetings with its top-ranked (by volume and revenue) customers and received direct positive feedback on its approach and ability to resolve issues collaboratively. Based on that feedback, LP believes customer satisfaction has improved throughout 2015, and going forward LP intends to continue its efforts to meet and exceed its customers' expectations.

The Offshore component of Enbridge's Gas Pipelines, Processing & Energy Services business segment (GPP&ES Offshore) also did not conduct any formal surveys in 2015. However, GPP&ES Offshore has regular, informal conversations with many of its customers and in 2015 received a great deal of positive feedback. Specifically, GPP&ES Offshore's customers indicated an appreciation for its responsiveness to their changing needs and its fairness in dealing with issues that occur.

STRATEGIC PRIORITY

- **Provide consistent and reliable customer service to all customers.**

2015 PERFORMANCE

KEY FACTS

Our Liquids Transportation business segment (LP) **transports 23 commodities, including multiple grades of light and heavy crudes, NGLs and refined products.** In 2015, LP held more than **500 meetings with its top-ranked (by volume and revenue) customers and received direct positive feedback** on its approach and ability to resolve issues collaboratively.

Enbridge Gas Distribution (EGD), which is one of the Enbridge affiliates under Enbridge's Gas Distribution business segment (GD), is the **largest natural gas distributor in Canada** with more than two million residential, commercial and industrial customers. In 2015, EGD issued approximately **26.1 million residential utility bills and responded to approximately 2.9 million customer inquiries.**

The Offshore division of our Gas Pipelines and Processing business segment (GPP&ES) primarily **gathers and/or transports natural gas and associated NGLs.**

GPP&ES's Onshore division primarily provides **gas gathering, treating and processing services.**

Liquids Pipelines

LP has three main customer groups: producers, shippers (who range from integrated oil and gas companies to smaller regional producers to marketers who buy crude, aggregate volumes) and refiners.

LP works with these customers to understand their needs and business drivers. It treats customers equitably, and gives them an equal opportunity to engage with LP staff.

It engages with its customers through:

- Enbridge's online Nominations/Operations Portal,
- telephone conversations and e-mails regarding scheduling,
- regular face-to-face meetings,
- shipper meetings and conferences,
- feedback provided through regulators, and

- senior-executive-level contacts.

LP provides customers regular updates on how its pipelines are performing and gives them an opportunity to ask questions and provide feedback. Its customers are primarily concerned about pipeline capacity and capabilities, pipeline apportionment, and that LP is maximizing its network performance. In response to their concerns, LP offers its customers:

- safe, predictable and reliable pipeline operations,
- efficient scheduling of shipments,
- predictable, cost-effective tolls,
- access to pipeline capacity,
- reliable pipeline capacity and throughput,
- system optimization (i.e., maximizing pipelines' efficiency),
- market access,
- system flexibility for shipper customers (access to multiple lines; ability to take multiple commodities; interconnecting facilities), and
- ratable, reliable supply for refiner customers.

LP's Mainline system has a lot to offer shippers. It transports 23 commodities, including multiple grades of light and heavy crudes, NGLs and refined products.

LP's terminal network provides operating storage that significantly assists shippers during times of production facility or refinery upset. Batches on LP's system can access multiple markets, and LP can facilitate in-transit trading of these batches to enable customers to optimize deliveries to these markets or manage supply in the event of a disruption.

In addition, LP offers competitive tolls, and is committed to keeping them as low as possible.

LP's goal is to be the industry leader in customer relationships. To that end, LP has structured its customer relationship management function so as to enhance and proactively build better customer partnerships. LP takes the view that customers are unique and require well-thought-out relationship plans. Through these plans, LP aims to create a competitive advantage by understanding its customers—their needs, expectations and business drivers—so it can make better decisions about its transportation network and better serve its customers.

LP did not receive any significant substantiated complaints regarding breaches of customer privacy or losses of customer data in 2015.

In August 2015, Enbridge Pipelines (FSP) L.L.C. (Enbridge FSP) filed a depreciation study for the Flanagan South Pipeline (FSP) with the Federal Energy Regulatory Commission (FERC). The depreciation study was available publicly on FERC's website and inadvertently contained confidential shipper information. The situation was immediately corrected and Enbridge received no formal complaints.

Gas Pipelines, Processing & Energy Services

Our Gas Pipelines, Processing & Energy Services business segment (GPP&ES), which has an Offshore and an Onshore component, defines its customers as shippers who produce and/or market gas and natural gas liquids that they transport on GPP&ES's gathering and transmission pipeline systems.

GPP&ES Offshore engages with its customers through various channels, including:

- daily interactions via its online Nominations Portal,

- GPP&ES's Informational Postings website,
- formal and informal shipper meetings,
- toll-free telephone lines, email, and instant messaging,
- subscription emails that GPP&ES Offshore distributes when it posts information regarding critical and non-critical events,
- commercial and executive-level contact,
- annual events, and
- face-to-face and teleconference meetings, as needed.

GPP&ES Offshore provides its customers with the information they need to effectively manage their business priorities, while also ensuring equitable treatment and access to information.

Its customers are primarily concerned with operational reliability and timely access to critical information. To meet their needs, GPP&ES Offshore ensures:

- safe and reliable pipeline operations,
- maximization of pipeline throughput,
- access to downstream markets and processing facilities,
- operational flexibility,
- prudent pipeline balancing practices,
- timely notification and ongoing updates for planned and unplanned outages,
- effective coordination of downtime and maintenance activities to reduce impact to system throughput,
- cooperation and strong working relationships with upstream and downstream operators and interconnecting pipelines,
- creative solutions to keep production flowing consistently and reliably, and
- delivery of well executed projects, on time and on budget.

GPP&ES Offshore's pipelines primarily gather and/or transport natural gas and associated NGLs. In addition, GPP&ES Offshore operates a crude gathering system, and is actively pursuing growth opportunities in both the offshore natural gas and crude segments of the industry.

GPP&ES Offshore's goal is to leverage its strong reputation in the Gulf of Mexico, and to expand and continuously improve the services it provides while maintaining its focus on Integrity, Safety and Respect.

GPP&ES Onshore (Midcoast Energy Partners) also has formal and informal engagement with its customers, including daily or weekly contact, either in person or by phone. Onshore customers are primarily concerned that GPP&ES ensures that their gas flows—because if it is not, they are not getting paid. They also want GPP&ES to be adaptable when issues arise, to be the lowest-pressure provider and to connect to their wells on time. In addition to providing gas gathering, treating and processing services, GPP&ES Onshore also provides integrated midstream solutions, including logistics and marketing services to market customers' natural gas, NGLs, condensate and crude oil, as well as truck and rail services and crude and condensate loading and storage facilities.

Neither GPP&ES Offshore, nor GPP&ES Onshore received any significant substantiated complaints regarding breaches of customer privacy or losses of customer data in 2015.

Enbridge Gas Distribution

Enbridge Gas Distribution (EGD), which is one of the affiliates under Enbridge's Gas Distribution business segment (GD), is the largest natural gas distributor in Canada with more than two million residential, commercial and industrial customers. In 2015, EGD issued approximately 26.1 million residential utility bills and responded to approximately 2.9 million customer inquiries.

EGD bills customers monthly, which gives it an opportunity to interact with customers at least 12 times a year. EGD takes advantage of this touch point by including information in its bills in the form of:

- a company newsletter (six times in 2015),
- rate notices (four times a year),
- safety information (carbon monoxide; Call Before You Dig (Ontario One Call); smell of gas), and
- company programs (budget billing; pre-authorized payment; third-party billing; golden age service).

In addition, EGD monitors questions and proactively engages customers through its website and Twitter.

Some of EGD's recent initiatives to enhance its customers' experience include:

- implementation of a mobile website and improvements to the customer experience on its website and other contact channels,
- improvement to the resolution of questions or concerns the first time (i.e., First Call Resolution),
- simplification of common transactions,
- proactive promotion of paperless billing to encourage enrollment (approximately 500,000 customers have opted for paperless billing),
- provision of energy efficiency information that allows customers to compare their energy use to similar homes and lower their energy use, and
- provision of a new service that enables access to lower cost gas supply basins in eastern Canada and the U.S.

In 2005, EGD established an Office of the Ombudsman to resolve customer issues that EGD's call center was unable to resolve. In 2015, nearly 7,700 issues (0.3 percent of all customer inquiries) were reported to EGD's Office of the Ombudsman, the majority of which (approximately 5,600) pertained to billing and collections. With few exceptions, the issues were resolved to the customer's satisfaction.

EGD also engages with its customers through its wide range of demand-side management (DSM) offers. From homeowners to large industrial facilities, EGD provides incentives to customers to encourage them to adopt energy-saving equipment and operating practices that reduce natural gas consumption. DSM also provides EGD a regular, positive touchpoint with customers. Cumulatively between 1995 and the end of 2014, these programs resulted in its customers conserving 9.6 billion cubic meters of natural gas. These reductions are similar to taking approximately 3.5 million cars off the road for a year or serving approximately four million homes for a year. For more information, please see the Energy & Climate Change section of this report, or the Energy Efficiency Tips section of EGD's website at <https://www.enbridgegas.com/homes/manage-energy>.

EGD's customers are primarily concerned that:

- their natural gas be delivered safely and reliably,
- they are given fair and reasonable delivery rates, and
- that EGD is responsive, responsible, trustworthy and accessible.

Because customer service and satisfaction are important to EGD, it measures its performance in these areas through a third-party market researcher that conducts ongoing telephone interviews with customers.

EGD also conducts a reputation study to monitor its reputation vis-à-vis its residential customers based on awareness, familiarity, service quality, trust and advocacy. EGD includes benchmarking questions in the study so that it can compare its performance with that of electricity providers in the EGD franchise area. The study conducted during the second quarter of 2015 determined that EGD led in the areas of familiarity, service quality and advocacy.

EGD has developed a Customer Value Proposition and Commitment statement that includes the following Customer Vision statement:

“Enbridge Gas Distribution will be recognized as a leading safe and reliable distribution company. We will be known for consistent delivery on the promises we make to our customers. And, we will provide services to our customers at fair and reasonable prices.”

It also includes the following customer commitments:

- provide a safe and reliable natural gas distribution system,
- operate the distribution system in an environmentally sound manner,
- deliver on our promises and provide hassle-free, quality service every time,
- offer fair and reasonable delivery rates,
- communicate with customers clearly and ensure that customers know what to expect,
- provide effective, timely recovery,
- be responsive, responsible, trustworthy and accessible,
- provide consumer education and advocacy, emphasizing the benefits of natural gas, and
- continue to enhance customer value based on feedback from employees, business partners, customers and the marketplace.

In EGD, a sorting error lead to the inadvertent disclosure of 10 customers' billing information to another customer. EGD quickly notified the affected customers and implemented new privacy controls. None of its customers made any further complaints.

ECONOMIC IMPACT & BENEFITS

OVERVIEW

Through our consistently strong financial performance, we have steadily generated superior returns to shareholders for more than six decades. At the same time, we also create positive economic impacts and opportunities that benefit many other stakeholders, including our customers, suppliers, community members and organizations, employees and governments.

MANAGEMENT APPROACH

Industry-Leading Growth

We are currently engaged in a \$26-billion commercially secured growth capital program through which we're building the infrastructure that North America needs to address its energy challenges.

This growth program, which is almost entirely organic and stems from the strategic positioning of our assets, will drive cash flow and dividend growth through 2019 and beyond. After 2019, we also expect to see growing contributions from our new business platforms, including renewable and gas-fired power generation, power transmission, energy services and international opportunities.

Addressing Investors' Interests

We actively engage with our investors who, in 2015, expressed interest in the following areas:

How We Will Execute on our \$26-billion Commercially Secured Growth Capital Program

We are in the midst of executing a five-year (2015-2019) \$26-billion commercially secured growth capital program that will enhance shareholder value through growing cash flows. In 2015, we brought 14 projects with a combined value of \$8 billion into service. We expect that the remaining \$18 billion of projects that are currently in various stages of execution will be in service by 2019.

We enhance investor value by focusing on completing our capital projects safely, on time and on budget, and to that end we have a dedicated Major Projects business unit (MP) with the requisite project management expertise. MP's core strengths include proactive supply chain management, robust cost and schedule controls, safety and quality leadership, advanced engineering and construction expertise, and regulatory permitting experience.

On-time execution also requires a robust funding plan. In 2015, directly and through our affiliates, we collectively raised more than \$1.7 billion of equity capital and \$3.7 billion of term debt capital. We believe that the remaining amount of capital required to support our commercially secured growth program is very manageable given the strong cash generating capability of our assets, our diversified sources of capital, solid investment-grade credit ratings and available liquidity of over \$10 billion as of the end of 2015.

How We Will Extend and Diversify our Growth Beyond 2019

Investors want to know that we are positioned to grow over the long term. One of our key priorities is to extend and diversify our growth beyond our current five-year planning horizon, which ends in 2019. While we plan to continue to capture opportunities within our core Liquids Pipelines business segment (LP), we are focused on rebalancing our

business mix over time and believe that the strong fundamentals in natural gas and power generation will create opportunities that meet our strict investment criteria.

How We Use our Sponsored Vehicles

Enbridge Income Fund (EIF) and Enbridge Energy Partners, L.P. (EEP), known as our sponsored vehicles, play a key role in supporting the funding of our large and growing set of investment opportunities. Over the long run, our sponsored vehicle strategy will bolster our financial strength and flexibility, expand our access to attractive sources of funding, enhance returns on our invested capital, and improve our ability to generate industry-leading growth through and beyond our planning horizon.

Our Cash Flow Growth and Dividend Growth and Payout Policy

In December 2015, Enbridge's Board of Directors approved a 14 percent increase to the 2016 dividend, which was the 21st consecutive annual dividend increase and is on top of a 33 percent increase in 2015. These increases reflect the confidence we have in the company's outlook, underpinned by the strength of our businesses, an industry leading growth program and our sound financial position.

Enbridge has strong cash flow coverage of our dividend of two times Available Cash Flow from Operations (ACFFO), which is reflected in our dividend payout policy of 40 to 50 percent of ACFFO. On the strength of our business model and large inventory of secured growth projects, we expect to continue to deliver strong growth in Available Cash Flow from Operations (ACFFO) of 12 to 14 percent per year on average through 2019. This strong cash flow growth supports an expected annual 10 to 12 percent dividend per share increase through 2019.

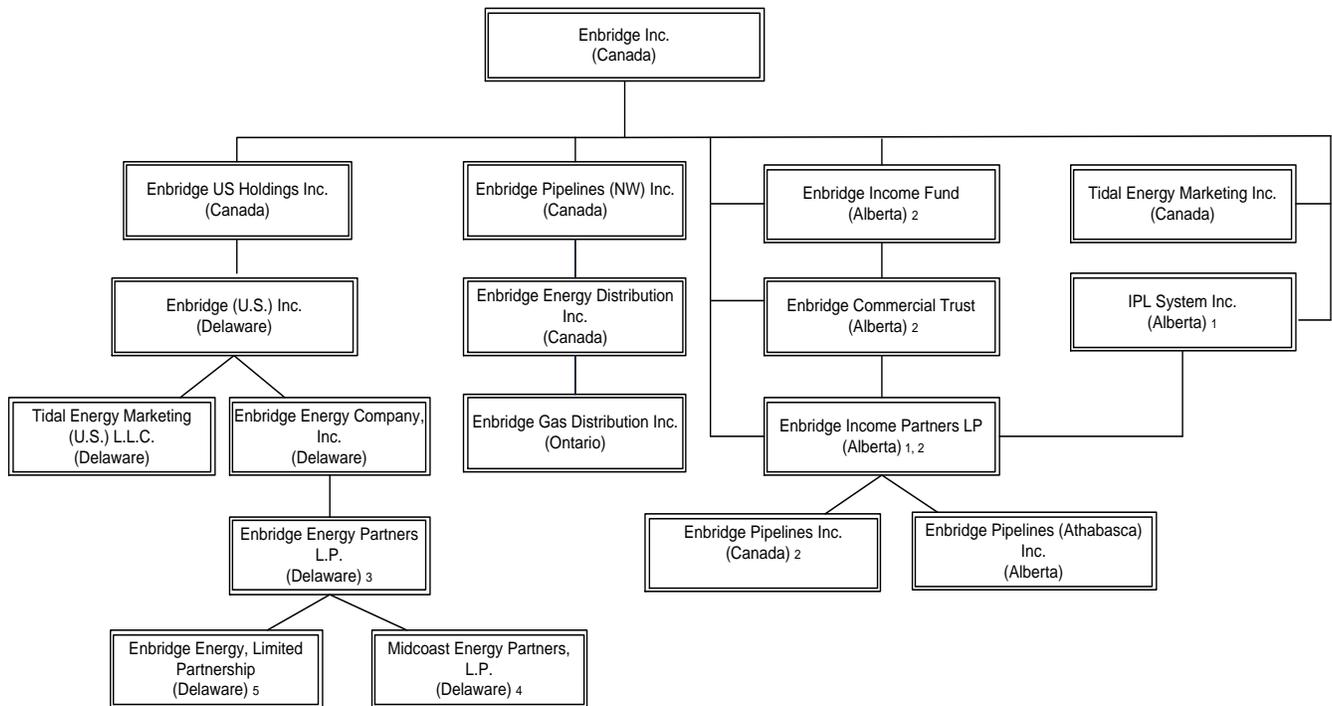
The Impact of Falling Commodity Prices

Our investors value reliable and predictable returns, so naturally they are concerned about volatile commodity prices and the impact these prices may have on our business. We respond by staying focused on our reliable business model, which minimizes our direct commodity price exposure. Key elements of our reliable business model include:

- investing in assets supported by strong long-term fundamentals,
- conservative commercial structures that provide predictable cash flow and minimize downside risk,
- disciplined investment review processes that ensure that opportunities align with our business model and earn attractive returns on a risk-adjusted basis,
- safe, on time and on budget execution of projects, and
- prudent financial policies that limit exposure to financial market risks.

Enbridge's Subsidiaries

The following organization chart presents the name and the jurisdiction of incorporation of Enbridge's material subsidiaries as at December 31, 2015. It does not include all of Enbridge's subsidiaries. The assets and revenues of excluded subsidiaries did not, individually, exceed 10 percent, or, in the aggregate, exceed 20 percent, of the total consolidated assets or total consolidated revenues of Enbridge as at December 31, 2015. Unless otherwise indicated, the company owns, directly or indirectly, 100 percent of the voting securities of all the subsidiaries below.



1. Enbridge holds all of the Class C units of Enbridge Income Partners LP (EIPLP), both directly and indirectly through its ownership interest in IPL System Inc. Enbridge Commercial Trust (ECT) and Enbridge Income Partners GP Inc. hold all of the Class A units of EIPLP.
2. Enbridge holds an 89.2 percent economic interest in the Fund Group (comprising Enbridge Income Fund, ECT, EIPLP and subsidiaries of EIPLP).
3. Enbridge holds a 35.7 percent economic interest in Enbridge Energy Partners, L.P. (EEP), held indirectly through its ownership interest in Enbridge Energy Company, Inc.
4. EEP's interest in Midcoast Energy Partners, L.P. is held through ownership of a 2 percent general partner interest through Midcoast Holdings, L.L.C., as well as a 51.9 percent limited partner interest.
5. EEP's interest in Enbridge Energy, Limited Partnership is held through a 0.0005 percent general partner interest through Enbridge Pipelines (Lakehead) L.L.C., as well as a 99.999 percent limited partnership interest.

STRATEGIC PRIORITIES

- **Maintain the company's strong economic health by delivering superior long-term value to Enbridge shareholders—in part through strategic growth projects, demonstrating high-quality and sustainable earnings per share and cash flow growth, and paying out a high proportion of earnings in the form of a growing dividend stream to Enbridge shareholders.**
- **Through our financial strength, continue to generate and distribute economic value to other stakeholders, including customers, governments, suppliers, employees, and community members and associations.**

2015 PERFORMANCE

KEY FACTS

We are currently engaged in a **\$26-billion commercially secured growth capital program** through which we're building the infrastructure that North America needs to address its energy challenges. In 2015, we **brought 14 projects with a combined value of \$8 billion into service**.

In 2015, our **annual adjusted earnings were \$1,866 million or \$2.20 per common share**, which is a 16 percent increase and within our guidance range.

The **compound annual growth rate of Enbridge's Total Shareholder Return (TSR) has outperformed the S&P/TSX Composite over the past five and 10 years** by an average of 11.4 percent and 8.8 percent over each respective annual period.

In 2015, Enbridge's **operating and administration costs in Canada amounted to approximately \$1,800 million**. Operating and administration costs in the U.S. amounted to approximately \$2,443 million. Enbridge's total 2015 capital costs were approximately \$7,275 million.

In 2015, Enbridge's **total payments to governments were approximately \$611 million**.

Strategic Growth Projects

We are currently expanding our presence across North America through strategic growth projects in liquids pipelines, natural gas liquids pipelines, and renewable energy projects.

In 2015, we rolled out our five-year (2015-2019) strategic plan, which features a \$26-billion growth capital program that is already commercially secured and in execution. In 2015, we brought 14 projects with a combined value of \$8 billion into service.

We continued to deliver new market access for our liquids pipelines customers. By the end of 2015, we had completed two of our market access programs:

- Western Gulf Coast Access, which provides the first large-volume path for Canadian crude to the U.S. Gulf Coast, and
- Eastern Access, which provides critical capacity for western Canadian and Bakken crude oil producers to access refineries in eastern Canada, the U.S. Midwest and eastern U.S., and provides refineries in those regions access to lower-cost feedstock.

We also made substantial progress in 2015 with our Light Oil Market Access Program, which is expanding access to markets for growing volumes of North Dakota and western Canadian light oil to premium refinery markets in Ontario, Quebec and the eastern portion of the U.S. Midwest.

Together, these three initiatives add 1.7 million barrels per day (bpd) of incremental market access capacity.

In addition, we placed these major projects into service in 2015:

- expansion of our Canadian Mainline system between Edmonton and Hardisty, Alberta, and
- our Woodland Pipeline Extension project, which extends the Woodland Pipeline south from our Cheecham Terminal to our Edmonton Terminal and increases available capacity to oil sands shippers by 400,000 bpd.

Also in 2015, we announced:

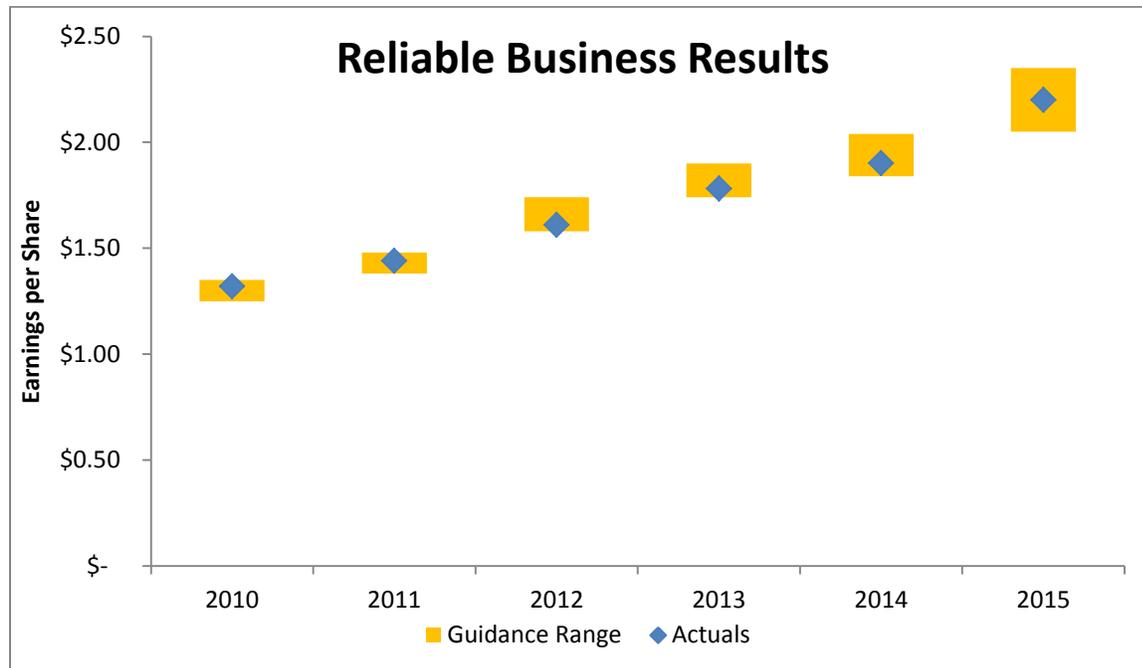
- a plan to optimize previously announced expansions of our Regional Oil Sands System in Alberta,
- that we will build, own and operate the Stampede Oil Pipeline to the planned Stampede development in the Gulf of Mexico,
- our acquisition of a 24.9 percent interest in the 400 megawatt (MW) Rampion Offshore Wind Farm in the UK, with our total investment in the project expected to be \$750 million (£370 million), and
- our acquisition of the New Creek wind farm in West Virginia, which is expected to be placed into service in late 2016 and to produce 103 MW of power.

For more information on our growth projects, please visit <http://www.enbridge.com/DeliveringEnergy/GrowthExpansionProjects.aspx>.

Earnings Per Share Growth

In 2015, Enbridge’s annual adjusted earnings were \$1,866 million or \$2.20 per common share, which is a 16 percent increase and within our guidance range. This amount brings our average annual adjusted EPS growth rate over the past five years to 10.7 percent. We are also confident we can extend our impressive growth rate well beyond 2019.

Starting in the first quarter of 2016, we will begin reporting “adjusted earnings before interest and taxes” (adjusted EBIT). In 2016, we expect to achieve adjusted EBIT in the range of \$4.4 billion to \$4.8 billion enterprise-wide.



Cash Flow Growth

Commencing in 2015, Enbridge began reporting Available Cash Flow from Operations (ACFFO) as the primary metric to assess the performance of our business. Adopting the ACFFO reporting metric and guidance will more clearly convey the cash flow and dividend growth potential that we expect our reliable business model and growth capital program will generate through our five-year (2015 to 2019) planning horizon and beyond. In 2015, ACFFO increased 23.2 percent to \$3,154 million, or \$ 3.72 per common share, from \$2,506 million, or \$3.02 per common share in 2014. In 2016, we expect to achieve ACFFO in the range of \$3.80 to \$4.50 per share. Our strategic plan is expected to generate compound average annual ACFFO per share growth of 12 to 14 percent through 2019.

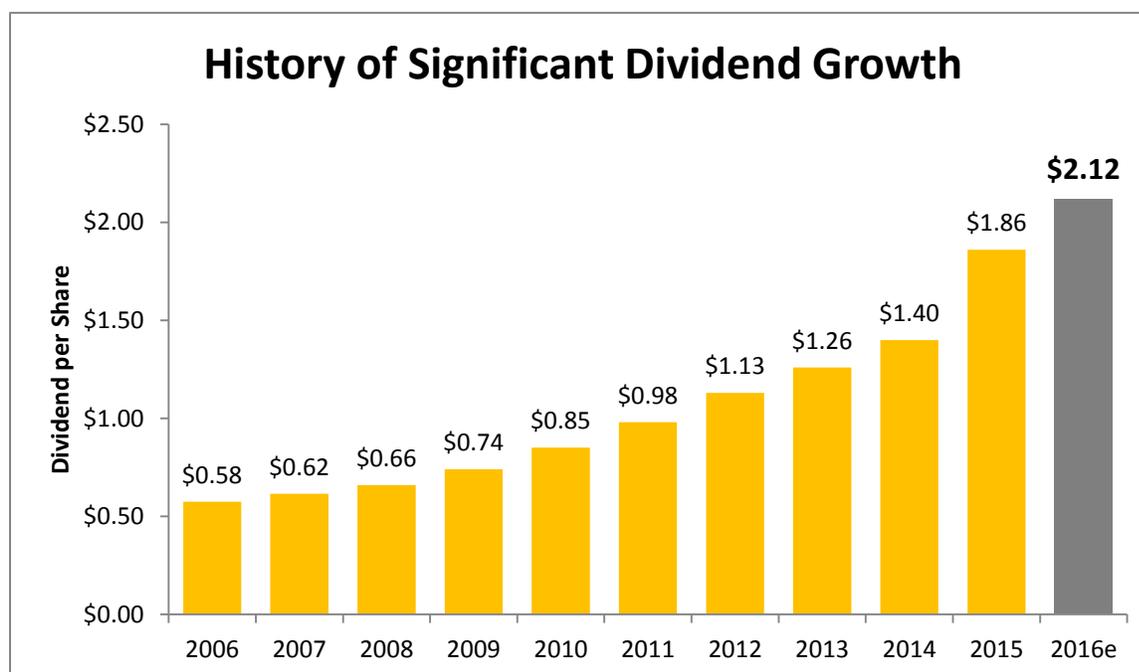
Dividend Growth and Capital Appreciation

We offer investors a unique value proposition that combines highly desirable attributes, including visible growth, a reliable business model and a growing income stream. We credit this unique value proposition for delivering excellent returns to shareholders, year after year.

The shareholders of Enbridge Inc. (TSX:ENB) (NYSE:ENB) realize returns through a combination of dividends and capital appreciation.

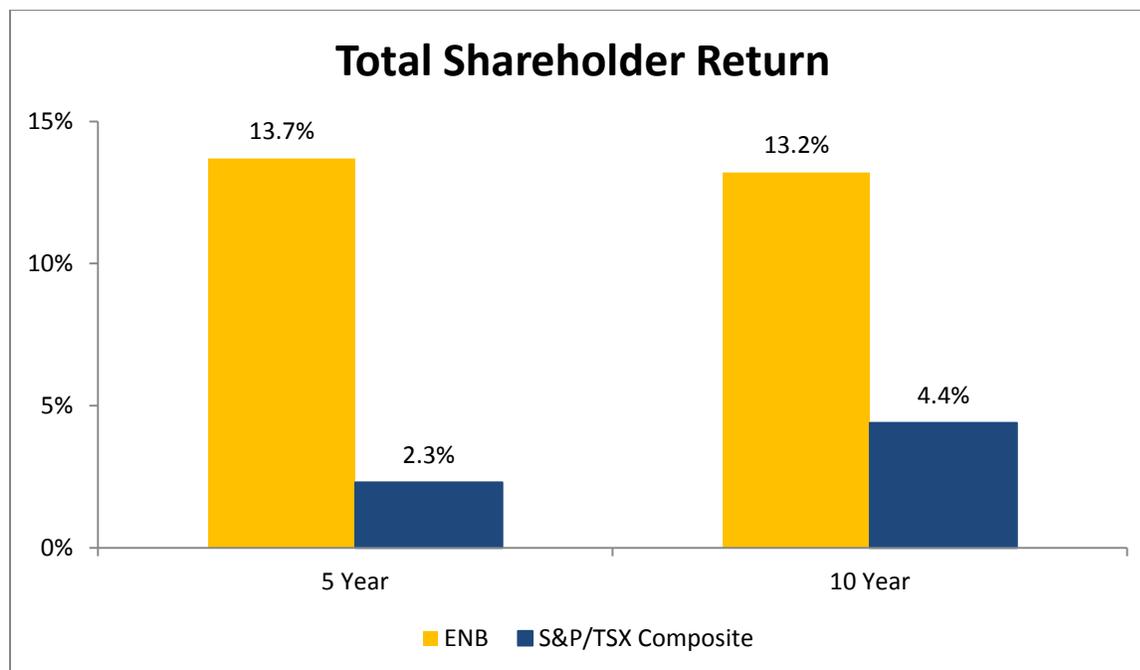
Dividend Growth

In 2015, we paid a dividend of \$1.86 per common share, up 33 percent from 2014, and representing a total of \$1,596 million to Enbridge common shareholders. Over the past 10 years, we have delivered average annual dividend growth of approximately 14 percent. Our dividend payout policy range is 40 to 50 percent of ACFFO. In December 2015, we announced a 14 percent dividend increase. This represents Enbridge's 21st consecutive annual increase and reflects our confidence in the company achieving strong cash flow growth from our existing assets and the capital projects that will be put into service over our five-year planning horizon. We expect annual dividend per share growth of 10 to 12 percent through 2019.



Capital Appreciation

The compound annual growth rate of Enbridge's Total Shareholder Return (TSR) has outperformed the S&P/TSX Composite over the past five and 10 years by an average of 11.4 percent and 8.8 percent over each respective annual period. This strong performance is driven by our reliable business model, our ability to execute on our growth program and the significant dividend income we provide to our shareholders.



Ongoing support for our share price comes in part from indices and rankings based on information about our environmental, social, ethical and governance policies and practices. These indices and rankings are based on the concept that a company's commitment to CSR and sustainability will help maintain and grow long-term shareholder value. As a result, a certain segment of investors choose to direct their investments toward companies listed on these indices and rankings.

In 2015, the Dow Jones Sustainability Indices named Enbridge to both its World and North America index. The DJSI indices track the performance of large companies that lead the field in terms of sustainability, financial results, community relations and environmental stewardship. Enbridge has been included in the North America Index eight times in the past nine years, and named to the World Index six times, including the past four years running.

The Global 100 Most Sustainable Corporations in the World highlights global corporations that have been most proactive in managing environmental, social and governance issues. In January 2016, Enbridge was named to the Global 100 for the seventh straight year, and 10th time overall. Enbridge is ranked No. 46 worldwide—up from our No. 64 overall ranking in 2015—and third among Canadian corporations. *For more information, please see the Awards & Recognition section of this report.*

Economic Value Generated and Distributed

In addition to creating value for our shareholders, we also create value for our other stakeholders, including our suppliers (through the operations and capital dollars we spend), community members and organizations (through our community investments), employees (through the salaries we pay) and governments (through the taxes we pay).

As per the table below, in 2015, we spent approximately \$4,248 million on operating and administration costs and approximately \$7,275 million on capital costs. We also spent about approximately \$858 million on employee salaries; invested approximately \$19 million in donations and other community investments; and paid approximately \$611 million in various types of taxes.

These amounts strengthen the countries and communities in which we do business.

<i>For the Year Ended December 31, 2015</i>	
<i>(unaudited; millions of Canadian dollars unless otherwise noted)</i>	
<i>Revenues (including income from equity investments)¹</i>	<i>34,269</i>
<i>Commodity Costs and Gas Distribution Costs</i>	<i>25,241</i>
<i>Operating and Administration Costs²</i>	<i>4,248</i>
<i>Capital Costs³</i>	<i>7,275</i>
<i>Adjusted Earnings</i>	<i>1,866</i>
<i>Available Cash Flow from Operations</i>	<i>3,154</i>
<i>Payments to Shareholders</i>	<i>1,884</i>
<i>Preference Share Dividends Declared</i>	<i>288</i>
<i>Common Share Dividends Declared</i>	<i>1,596</i>
<i>Payments to Lenders</i>	<i>1,835</i>
<i>Total Base Salaries⁴</i>	<i>858</i>
<i>Donations and other Community Investments</i>	<i>19</i>
<i>Payments to Governments⁵</i>	<i>611</i>

Certain amounts in this table have been determined and presented in view of the Global Reporting Initiative 4.0 reporting guidelines and may differ from amounts determined under the U.S. GAAP.

¹ Revenues include \$475 million of income from equity investments.

² Operating and administration costs in Canada amounted to approximately \$1,800 million. Operating and administration costs in the U.S. amounted to approximately \$2,443 million. Operating and administration costs that we incurred through our international activities amounted to approximately \$5 million. Total 2015 operating and administration costs were approximately \$4,248 million.

³ Capital costs in Canada amounted to approximately \$4,097 million. Capital costs in the U.S. amounted to approximately \$3,178 million. Total 2015 capital costs were approximately \$7,275 million.

⁴ Total base salaries includes the base pay of permanent and temporary employees, including approximately \$631 million for employees in Canada; US\$227 million for employees in the U.S. Total base salaries for 2015 amounted to approximately \$858 million. We have added Canadian currency amounts with U.S. currency amounts, and have not applied an exchange rate.

⁵ Payments to governments (including property taxes, income taxes and other taxes) in Canada amounted to approximately \$266 million. Payments to governments (including property taxes, sales and use taxes, income taxes and other taxes) in the U.S. amounted to approximately \$341 million. Income taxes paid to other governments amounted to approximately \$4 million. Total payments to governments were approximately \$611 million. In addition to tax payments made to governments, Enbridge employs significant resources, including the cost of salaries, technology and control functions to comply with various government-imposed requirements to collect and remit taxes on their behalf. In 2015, Enbridge collected and remitted \$1.4 billion in sales, withholding, and payroll taxes on behalf of Canadian and U.S. governments.

Revenues

Enbridge generates revenues from three primary sources: commodity sales; gas distribution sales; and transportation and other services.

Commodity Sales

Commodity sales are generated primarily through our energy services operations. Energy Services includes the contemporaneous purchase and sale of crude oil, natural gas and natural gas liquids (NGLs) to generate a margin, which is typically a small fraction of gross revenue. While sales revenues generated from these operations are impacted by commodity prices, net margins and earnings are relatively insensitive to commodity prices and reflect activity levels that are driven by differences in commodity prices between locations and points in time, rather than on absolute prices. Any residual commodity margin risk is closely monitored and managed. Revenues from these operations depend on activity levels, which vary from year to year depending on market conditions and commodity prices.

Gas Distribution Sales

Gas distribution sales revenues are primarily earned by Enbridge Gas Distribution (EGD) and are recognized in a manner consistent with the underlying rate-setting mechanism mandated by the regulator. Revenues generated by the gas distribution businesses are driven by volumes delivered, which vary with weather and customer composition and utilization, as well as regulator-approved rates. The cost of natural gas is passed through to customers through rates and does not ultimately impact earnings due to its flow-through nature.

Transportation and Other Services

Transportation and other services revenues are earned from our crude oil and natural gas pipeline transportation businesses and also include power production revenues from our portfolio of renewable and power generation assets. For our transportation assets operating under market-based arrangements, revenues are driven by volumes transported and tolls. For assets operating under take-or-pay contracts, revenues reflect the terms of the underlying contract for services or capacity. For rate-regulated assets, revenues are charged in accordance with tolls established by the regulator, and in most cost-of-service based arrangements are reflective of the company's cost to provide the service plus a regulator-approved rate of return.

For the purposes of presentation for Enbridge's *2015 CSR & Sustainability Report*, we have included Income from Equity Investments in Revenues.

The following table presents Enbridge's total revenues for the past four financial years:

Year ended December 31 (unaudited; millions of Canadian dollars)	2012	2013	2014	2015
Revenues (including income from equity investments)	24,855 ¹	33,248 ¹	38,009 ¹	34,269 ¹

¹ Revenues include \$475 million (2014 - \$368 million; 2013 - \$330 million; 2012 - \$195 million) of income from equity investments for the year ended December 31, 2015.

The following table presents Enbridge's 2015 revenues in percentage terms by main source of revenue as noted above:

Source of Revenue	Percentage of total 2015 revenues (unaudited)
Commodity Sales	69.6%
Gas Distribution Sales	9.0%
Transportation and Other Services	20.0%
Income from Equity Investments	1.4%
Total	100

Taxation

Our tax governance principles include our tax mandate, tax code of conduct and tax risk philosophy.

Our tax mandate is to comply with all applicable tax laws in every jurisdiction in which we operate, ensure accuracy and timeliness in our tax accounting and reporting, and enhance shareholder value by effecting all of our business transactions in a tax efficient and legal manner.

Our tax code of conduct upholds our core values and requires that we act with integrity and demonstrate respect for the tax laws, tax authorities and other stakeholders in all jurisdictions where we operate through timely and accurate tax compliance and tax reporting, transparent communication and a spirit of cooperation.

Our tax risk philosophy aligns with our overall low risk tolerance and seeks to minimize tax uncertainty and tax risk through: the development of a strong staff of tax professionals; close monitoring of domestic and global tax developments; timely engagement and collaboration across the organization; seeking tax rulings when required to confirm tax positions; compliance with tax laws in all jurisdictions in which we operate; and timely reporting to senior management and boards of directors.

Enbridge pays income tax, property tax, sales and use tax, business tax and all other required taxes to local, state, provincial and federal governments in Canada, the U.S. and other foreign jurisdictions where we have operations. In 2015, we paid \$611 million of income tax, property tax, sales and use tax, business tax and other taxes, primarily in Canada and the U.S.

Additionally, in 2015, Enbridge collected and remitted \$1.4 billion of sales, withholding, and payroll taxes on behalf of Canadian and U.S. governments.

Enbridge also publicly reports the following information by geographic region for tax reporting purposes in the notes to our annual financial statements: earnings before income taxes; discontinued operations and extraordinary loss; current tax expense; and deferred tax expense. *For more information, please see Enbridge's 2015 Annual Report.*

COMMUNITY INVESTMENT

OVERVIEW

Enbridge exists to help fuel quality of life within communities where we work and operate. As part of our work, we support more than 750 organizations that champion solutions for safety, environmental and social issues. We collaborate with community leaders to help make positive and lasting impacts in their communities by investing in projects and initiatives that are a direct reflection of their particular needs.

MANAGEMENT APPROACH

Governance

Our approach to community investment is governed by our Board of Directors and by our Community Investment and Employee Engagement Policy, which defines how we support community needs to the mutual benefit of communities, Enbridge and our employees. In 2015, we also adopted a new policy on financial support for post-secondary institutions.

Our community investments are guided by a core set of criteria. We consider investment and sponsorship opportunities that are:

- in communities within a 20-kilometer (10-mile) radius of our pipeline rights-of-way or near our operations,
- of prime importance to the community,
- beneficial to the greatest possible number of people,
- significant to the community's long-term interests, and
- supportive of at least one of the three focus areas that we view as being integral to sustainable communities.

Our Board of Directors reviews and approves our annual community investment donations and sponsorship budgets. All of our community investment donations and sponsorships must comply with our Statement on Business Conduct.

Focus Areas

In making our investments, we concentrate on three general focus areas* that help us contribute to the quality of life of North American communities:

Everyone's Well-being

Safety within our company and in our communities is our highest priority. We invest in local safety initiatives and organizations that keep our communities healthy and secure. Our support for community well-being includes community safety, emergency response and disaster relief.

Everyone's Community

We are partners in building strong, vibrant communities. We work with community leaders to identify and develop innovative and lasting solutions for local issues.

Everyone's Environment

We take our responsibility for the environment seriously and recognize that the way we care for our air, land and water matters to everyone. We invest in programs that promote environmental stewardship, conservation, habitat remediation and environmental education.

*Certain projects may also have project-specific community investment criteria.

STRATEGIC PRIORITY

- **Invest our approved 2015 Community Investment budget in alignment with our Community Investment and Employee Engagement Policy.**

2015 PERFORMANCE

KEY FACTS

In 2015, we invested over \$19 million in more than 750 organizations across North America in community-strengthening initiatives aligned to our three focus areas (well-being, community and the environment).

Approximately **900 of our employees participated in our Volunteers in Partnership program in 2015 by volunteering over 31,000 hours for causes they value.** In recognition of their efforts, under the program, we contributed over \$290,000 to communities in Canada and the U.S.

Under our Safe Community program, we have awarded grants to U.S. emergency responder organizations since 2002 and to Canadian emergency responder organizations since 2009. **In 2015, we invested over \$1.3 million in the program.**

In 2015, **we donated \$6.5 million to the United Way** through our fund raising events, employee pledges and matching corporate contribution, surpassing the amount we donated in 2014.

In 2015, we worked closely with community organizations to focus our resources and support. In the course of our work, we acquired an understanding of their concerns, needs and aspirations through:

- on-going conversations with them,
- information gathered by Enbridge representatives who live and work in our communities, and who regularly meet with community leaders, and
- direct requests from employees and community organizations.

In response to what we heard, we invested over \$19 million in 2015 in more than 750 organizations aligned with our three focus areas.

Community Investment Highlights

Everyone's Well-being

In 2015 we invested more than \$4.2 million in our Everyone's Well-being focus area. Highlights included:

Project Zero - Each year, we team up with the Fire Marshal's Public Fire Safety Council in Ontario to help fire departments reduce the number of fire and carbon monoxide-related deaths in the province through Project Zero, a public education campaign that provides combination smoke and carbon monoxide alarms to residents in Ontario. The goal of the annual Project Zero campaign is to reduce the number of residential fire- and carbon monoxide-related deaths to zero.

In 2015, an alarm that had been installed under Project Zero in a family home in Thorold, Ontario, activated. Thorold firefighters responded to the alarm and, using testing equipment, found a high level of potentially deadly carbon monoxide. The firefighters ventilated the house so that we could assess the situation and repair what turned out to be a gas leak. The alarm has been credited with saving the family's life.

Recently, the Ontario government passed the Hawkins-Gignac Act, which requires all dwellings with a fuel-burning appliance, fireplace or attached garage to be equipped with carbon monoxide detectors.

Heart and Stroke Foundation – We help keep community members safe by ensuring they have access to technology and training related to cardiac arrest.

Every year, approximately 40,000 Canadians experience a cardiac arrest, usually—in about 85 per cent of cases—outside of a hospital. In these cases, the survival odds are doubled when early cardiopulmonary resuscitation (CPR) is used in combination with an AED.

Through our partnership with the Heart and Stroke Foundation, we recognized the need for these devices and are working to make AEDs available to Albertans. In 2015 we contributed \$346,000 to install 33 AEDs in 26 Alberta schools, and to deliver AED and CPR training to approximately 2,000 students along or near our Mainline right-of-way, specifically from the Edmonton area to the Saskatchewan border. As part of the initiative, students receive CPR take-home kits, which they can share with their families, creating even more heart heroes.

Because many of the schools double as community centers, the AEDs are on hand for both school-related and community events. We plan to continue this initiative in 2016, and to expand it into schools in Saskatchewan.

Safe Community Program – One of our flagship community investment programs is our Safe Community program, under which we provide grants to law enforcement agencies, firefighters, emergency medical services, emergency management, 9-1-1 and other related health providers who would respond to emergency situations in or near communities where we have operations. The grants help eligible organizations acquire new safety-related equipment, obtain professional training and deliver safety education programs in their communities.

For example, in October we sponsored a basic entry course for patrol officers in five units of the police department in Thief River Falls, Minnesota. To meet the needs of the course—which required that officers break down doors such that they could practice reaching people in distress—the department was able to use our funding to lease the old portion of the local hospital, which has been slated for demolition.

In 2015, we invested over \$1.3 million in the Safe Community program. Since the program's inception in 2002 through to the end of 2015, we have invested approximately \$8.5 million in it.

Everyone's Community

In 2015 we invested approximately \$9.8 million in our Everyone's Community focus area. Highlights included:

Habitat for Humanity - We donated over \$360,000 in support of numerous Habitat for Humanity (HFH) projects in Canada and the U.S. Two of the projects took place in Minnesota where, in Aitkin County, HFH built a house for a family of three, and in the Lakes Area a house for a family of five, providing safe, affordable and energy-efficient housing for these families.

We also supported HFH to build a 10-unit elders lodge in Saskatchewan as part of our Enbridge Aboriginal Home Program at the Flying Dust First Nation in Saskatchewan. The lodge will provide safe, affordable and sustainable housing for 10 of the community's elders. It will also free up the houses that the elders had been living in for young families. *For more information, please see the Aboriginal and Native American Rights & Engagement section of this report.*

Recently, HFH chapters in Toronto, Brampton, Caledon and York Region in Ontario amalgamated to form HFH Greater Toronto Area (GTA). The amalgamation identified inconsistent safety practices across HFHGTA and created an opportunity for us to share our safety experience. As a result, along with another organization, we are helping HFHGTA improve its safety practices. Whether it is at the construction site, in the office, or at its ReStores, we are working with HFH to create a safer environment for everyone concerned.

United Way – Employee volunteer teams led our United Way campaigns in several locations, including Calgary, Edmonton, Toronto and Houston. In 2015, we donated \$6.5 million through our fund raising events, employee pledges and matching corporate contribution, surpassing the amount we donated in 2014.

As part of our United Way campaigns, employees in some of our centers participated in a poverty simulation exercise called, "Living on the Edge." The exercise gave employees an appreciation for the realities associated with living on a low income, and helped them understand the support that the United Way provides to people in need.

Everyone's Environment

In 2015, we invested approximately \$1.7 million in our Everyone's Environment focus area. Highlights included:

U.S. National Fish and Wildlife Foundation – We continued our support of a range of projects along our U.S. pipeline systems through our \$125,000 donation to the U.S. National Fish & Wildlife Foundation's (NFWF) National Wildlife Refuge Friends Program. Our donation enables the program to award grants to organizations involved in projects that help steward the natural resources in the National Wildlife Refuge System.

One such project involves planting a garden in Austwell, Texas, for pollinators, such as bees, humming birds and monarch butterflies, whose populations have been steadily decreasing due to critical habitat loss. The garden, which is scheduled to be completed in the spring of 2016, will include labelled native plants, an irrigation system, a pathway and a large interpretive site for visitors.

Volunteers in Partnership (VIP)

We fulfill our purpose of fueling people's quality of life, not only through the energy we deliver, but through the energy that our employee volunteers donate to help strengthen their communities every day. And, through Volunteers in Partnership (VIP), our employee giving and volunteering program, we support our employees as they donate their time, abilities and money to the charitable causes they care about. Our support takes the following forms:

- We provide grants of \$500 in Canada and \$250 in the U.S. to non-profit organizations at which employees have volunteered 40 hours or more of volunteer service per year outside of business hours in countries where we have operations; OR we provide grants up to a maximum of \$500 to match employees' own fundraising efforts (one event per year).
- We provide employees the opportunity to take one paid day (or eight hours) off per year to volunteer at the non-profit organization of their choice in countries where we have operations.
- We also provide one paid day (or eight hours) off per year for supervisor-led, team-building volunteer activities in countries where we have operations. This support allows us to gain a better understanding of the communities in which we operate, the challenges they face and the ways we can best contribute.

In 2015, approximately 900 employees participated in the VIP program, volunteering over 31,000 hours for causes they care about. In recognition of our employees' efforts, under the program, we contributed over \$290,000 to communities in Canada and the U.S.

Since we established the program in 2010, our employees have contributed nearly 75,000 hours—and Enbridge has donated over \$1.6 million to hundreds of organizations in Canada and the U.S.

energy4everyone Foundation

The energy4everyone Foundation (e4e), which we support, has been committed to tackling energy poverty in the developing world since we established it in 2009. Working with companies in the energy industry in Canada and the U.S. and other organizations, e4e helps to improve access to affordable, sustainable and reliable energy for those who need it most.

In 2015, e4e helped fund the International Year of Light, a global initiative that highlights to the citizens of the world the importance of light and optical technologies in their lives. In addition, through a number of projects, e4e improved access to energy for communities in Peru, Nicaragua and Ghana through water well electrifications, solar stoves, eco stoves and solar lighting.

EMPLOYEE RELATIONS

OVERVIEW

People are the basis of our success. For us to achieve our strategic priorities, we must attract, retain, develop and engage a highly skilled workforce.

MANAGEMENT APPROACH

We maintain our foundation of operating excellence by adhering to a strong set of core values: Integrity, Safety and Respect. These values reflect what is important to us in support of our communities, the environment and each other, and represent a constant guide by which we make our decisions as a company and as individual employees. In 2015, we continued to model these values and to ensure that they are embedded in all of our employee relations programs.

Human Resources Mandate

Our Human Resource mandate is to enhance the capabilities of our people such that we can maximize our organization's potential. The current economic downturn facing our industry—and our need to lay off five percent of our workforce in November 2015—only reinforced our mandate, and we remain strongly focused on developing our internal talent to build capacity.

Our Risk and Safety Culture

Safety and operational reliability remain our top priority. We recognize that if we fail to meet our safety and operational goals, our business as a whole cannot deliver the outcomes laid out in our strategic plan.

Our rigorous safety performance requirements reflect our Safety value. We demonstrate our commitment to safety by mandating that employees have a safety objective that makes up 10 percent of their overall job objectives.

For more information, please see the Human Health & Safety and Risk Management sections of this report.

Our Commitment to Human Rights and Non-discrimination

Our Statement on Business Conduct contains provisions that support the protection of human rights and freedoms within our sphere of influence.

In addition, our support of the protection of human rights and freedoms is reflected in our Respectful Workplace Policy, our Duty to Accommodate Policy, and our commitments to:

- achieving and maintaining a workforce that complies with Diversity and Equal Opportunity legislation, and that reflects the demographics in our communities,
- identifying and removing systemic barriers in employment systems, policies, procedures and practices that may adversely affect the employment or career progress of any employee,
- implementing special measures to correct the effects of employment disadvantages and promoting workforce participation of designated groups,
- developing initiatives that ensure employees can work to their full potential.

In accordance with these policies and commitments, we hire based on merit and job requirements, and ensure that our recruiting fully captures the available labor force.

We treat employees equitably with regard to accessing developmental and career advancement opportunities, training and other conditions of employment consistent with their performance and qualifications.

We support programs and initiatives that foster equal employment opportunities and non-discriminatory employment practices.

We have established a Diversity and Employment Equity strategy; a Diversity Steering Committee; and an Employment Equity, Diversity and Inclusion Plan for our Canadian Liquids Pipelines (LP) business segment. All of these initiatives are governed under Canada's Employment Equity Act.

For more information, please see the Business Conduct & Ethics section of this report.

Human Rights Programs and Training

We ensure that each of our business segments has access to training that addresses subjects such as maintaining a respectful workplace, anti-harassment and workplace violence.

As a condition of employment, all new employees are required to read, and provide written acknowledgement of their agreement to follow, our Statement on Business Conduct. Thereafter, all employees must certify their compliance with the statement each year. The annual certification process includes mandatory Statement on Business Conduct refresher training.

Also, in 2015, we delivered Respectful Workplace training to all employees in Canada, and Anti-Harassment training to all employees in the U.S. If further training is needed, we provide it to groups or departments as requested. We also continually revisit the content and delivery methodology of these courses to ensure that they are up-to-date and accessible.

In addition, People Leaders must adhere to all Enbridge policies, including policies that support anti-discrimination and employment equity. They are responsible for maintaining and promoting a work environment that is free of harassment and workplace violence as defined by our various policies, human rights legislation and occupational health and safety legislation.

Diversity, Inclusion and Equal Opportunity

Our success is built on a diverse and respectful workplace. We seek employees who enhance our work environment, who are committed to upholding our core values and who believe that a workplace must be welcoming and inclusive. We encourage diversity in our workforce because we understand that different backgrounds, abilities and perspectives help keep us innovative and dynamic.

Our commitment to diversity means that we are committed to hiring people whose skills and abilities contribute to our success, and who reflect the communities in which we live and work. This commitment is the reason that Mediacorp named us one of Canada's Best Diversity Employers for 2015, and the Canadian Council for Aboriginal Business recertified us at the silver level for Progressive Aboriginal Relations. *For more information, please see the Awards & Recognition section of this report.*

Through our continual renewal and development of positive policies and programs, we are building a workplace that is equitable, respectful and free from harassment, in part through the initiatives and resources we developed in 2015:

- Respectful Language guide,
- Duty to Accommodate Policy,

- adaptation of mandatory training to meet the needs of employees with developmental disabilities, and
- exploration of the concept of Universal Design to ensure that all of our materials and resources are accessible to employees with disabilities.

Under the Accessibility for Ontarians with Disabilities Act (AODA), Enbridge Gas Distribution (EGD) has also committed to creating a barrier-free workplace, and is increasing accessibility for persons with disabilities in the areas of information, communication and employment. It now has an Integrated Accessibility Standards Policy and a multi-year Accessibility plan that outlines how it will meet accessibility standards.

Self Disclosure

In Canada, our Liquids Pipelines business segment (LP) complies with Canada's Employment Equity Act and, as such, is required to track and report annually on its composition of women, persons with disabilities, visible minorities and Aboriginal persons. To meet this requirement, LP Canada provides to all new employees an online employment equity survey that asks them to voluntarily identify themselves as members of one or more of these groups. This information provides us with important aggregate numbers for workforce analysis, which we use as a foundation on which to base our strategic actions. However, as some employees choose not to self-identify, the information that LP obtains is not comprehensive.

Our U.S.-based business segments have an Affirmative Action Plan that involves routinely tracking the composition of our workforce in compliance with government reporting requirements. To meet the objectives of our Affirmative Action Plan, our U.S.-based business segments track the ethnicity of all job applicants and employees based on self-identification and use this information to determine areas of under representation in order to set placement goals. In addition, we are developing recruitment efforts to diversify our applicant pool and to ensure that our workforce represents diversity.

Initiatives to Increase Workforce Diversity and Inclusion

We are committed to creating a workforce that, at all levels, represents the diverse population we serve. We are also committed to providing a working environment that encourages everyone to participate on an equitable basis in employment, training and career advancement opportunities, consistent with their abilities, qualifications and aspirations. To that end, in we have undertaken the following initiatives to increase workforce diversity and inclusion:

Diversity and Inclusion Steering Committee: In 2015, we formed an enterprise-wide Diversity and Inclusion Steering Committee. The committee comprises senior leaders and is responsible for strategy, development, and oversight of diversity and inclusion. It has approved a governance structure that involve integrating accountabilities pertaining to diversity, inclusion and leadership into an existing role within each of our business segments—other than LP, which already has three individuals dedicated to these accountabilities. Each business segment will also establish a representative working group that will develop a local strategy that responds to its unique context.

Diversity Policies: We have a number of policies that support diversity and inclusion in our workforce. These include our policies pertaining to anti-harassment, bereavement leave, compassionate leave, duty to accommodate, employment equity, long-term disability, parental leave, military and reservist leave, personal leave, respectful workplace, scheduled days off program, alternative work arrangements and health recovery programs. They also include our Aboriginal and Native American Policy.

Diversity Training and Guidance: We have included information and resources pertaining to diversity and inclusion in our workshops for new hires and in our Leadership Boot Camps. We also offer a full-day workshop on diversity and inclusion in Calgary and Edmonton, and, through Enbridge University (ENBU), provide courses designed to support individuals who are working in multicultural environments across Canada.

Our Diversity and Inclusion department regularly works with leaders and team members who want to integrate diversity into their teams or departments. Our Diversity and Inclusion intranet site also maintains resources for all employees on subjects related to the topic.

Diversity Monitoring, Assessments and Audits: The Perspectives survey that we conduct with our employees every two years includes four questions that pertain to diversity.

In addition, in 2015, the Edmonton chapter of our Women@Enbridge Employee Resource Group (see below) surveyed all of the women in our Edmonton region to get their thoughts on diversity and inclusion. More than 370 women—48 percent of the total—responded by providing frank insights into their career challenges. As a follow up, senior Women@Enbridge members hosted focus groups at which over 100 women discussed recommendations for improvement, and we are developing strategies based on the recommendations.

Employee Resource Groups: Employee-led Employee Resource Groups (ERGs) create opportunities for engagement, development and networking, and support enriched diversity strategies, particularly for groups who may have historically experienced barriers to equitable participation in the workforce. Our ERGs include:

- Women@Enbridge,
- ENBRACE, for internationally educated professionals,
- Prism Energy, for members of the LGBTQ community,
- FEMINEN, for female engineers,
- PERG, for parents and caregivers,
- Connect, for young professionals, and
- AERG, a new ERG created in 2015 for Aboriginal, First Nations and Métis employees and contractors.

Women@Enbridge is active in Canada and the U.S., while the other ERGs are active in Canada.

FEMINEN has created and maintains an award-winning mentorship program between female engineers at Enbridge and Aboriginal girls from Edmonton high schools who are interested in the science, technology, engineering and mathematics fields.

ERG members include individuals who identify as one of the demographic groups as well as individuals who identify as allies. Membership is growing and is inclusive. It is open to all employees and contractors, regardless of regional location.

Diversity Liaison Network: In addition to the ERGs, we maintain a network of employees called Diversity Liaisons, who share diversity and inclusion-related ideas and issues, and who engage other employees in conversations on these topics.

Partnership with the Alberta Human Rights Commission: In partnership with the Alberta Human Rights Commission, we are a founding member of a steering committee that offers a series of workshops pertaining to the legal duty to accommodate a person's needs based on protected grounds under the Alberta Human Rights Act. The workshops address evolving issues and law for all of the protected categories within the Act. They are open to anyone practicing in the field of Human Resources and law, and other areas that are responsible for managing human rights.

Women in Management

Women make up 33.5 percent of our total regular workforce, and women in all levels of management positions make up 26.9 percent of our management positions. Women in junior management positions (Team Leads and Supervisors) make up 29.5 percent of our first-line management positions, and women in top management positions (i.e. Vice Presidents and women who are no more than two levels away from our CEO) make up 16.2 percent of our top management positions.

Labor Relations and Collective Bargaining

We believe that healthy and cooperative labor relations and collective bargaining contribute to our business success. As such, we maintain and foster a cooperative approach to union and management relationships through joint committees with various unions and industrial councils. These committees meet regularly to resolve outstanding matters and to advise on and discuss issues of mutual concern. We also follow the labor laws of the countries in which we operate, and base our actions on our Statement on Business Conduct.

As at December 31, 2015, 855 of our employees were covered by a negotiated agreement, an amount that represents 9.8 percent of our permanent employee base of 8,743. The 855 total includes:

- 635 unionized employees, including temporary workers, who work at Enbridge Gas Distribution and who are represented by Unifor Local 975,
- 18 collective bargaining unit employees who work at Enbridge Gas Storage in Sarnia, Ontario, and who are represented by the Joint Industrial Council,
- 28 unionized employees who work at St. Lawrence Gas Company in Messina, New York, and are represented by the International Union Brotherhood of Electrical Workers (IBEW) Local 97,
- 145 unionized employees who work on our Liquids Pipelines (LP) system in the Lake Superior/Chicago region in the U.S. and who are represented by the United Steelworkers (USW) Local 2-2003, and
- 29 unionized employees who work for LP in Cushing, Oklahoma, and who are represented by USW Local 348.

In 2015, no trade union was involved in organizing any of our employees, and we had no reason to hold consultations or negotiations with any of them.

In 2015, we signed two collective agreements with union representatives in the U.S. All of our formal collective agreements with trade unions include health and safety considerations.

Joint Management-Worker Health and Safety Programs

One hundred percent of the company's total workforce is represented in formal joint management-worker health safety programs. *For more information, please see the Human Health & Safety section of this report.*

Notice Periods Provided to Employees prior to Implementing Significant Operational Changes

We follow all state and provincial regulations regarding the minimum notice periods we must provide to employees prior to implementing significant operational changes.

Of our collective bargaining units, only Unifor Local 975, which represents our EGD employees in Ontario, states in its collective agreement that we must provide 60 days' notice before implementing any significant operational changes. We would provide all of our other employees who are covered by negotiated agreements with the minimum notice period stipulated by the relevant jurisdiction in question.

None of the employees we laid off in November 2015 were unionized.

Formal Grievance Mechanisms

All of our collective bargaining agreements contain processes for formal grievances should the terms of the agreements be violated. In addition, we maintain a toll-free telephone line that any employee, unionized or not, can use to report any issues or concerns regarding compliance, from fraud to disrespect in the workplace to Code of Conduct transgressions. We follow up on every call.

In 2015, no one filed any grievances regarding our impact on society

Local Hiring

We do not have a formal policy regarding local hiring. However, in practice, most of the individuals we hire are from the local community. In 2015, five of the six senior leaders that we hired in Canada (directors or above) were from the local community at locations of significant operations, and one of the two senior leaders that we hired in the U.S. were from the local community at a location of significant operation.

In addition to hiring locally, we create other positive economic impacts and opportunities that benefit stakeholders such as suppliers, community members and organizations, employees and governments. And, we are committed to doing business with Aboriginal and Native American contractors and suppliers. *For more information, please see the Economic Impact & Benefits and the Aboriginal & Native American Rights & Engagement sections of this report.*

Our Workforce Profile

As at December 31, 2015, we employed 8,743 full- and part-time permanent employees in Canada and the U.S.; 194 temporary employees; and 1,871 provisioned contract employees who support the seasonal and project work associated with specific projects. A large majority of our 8,743 permanent employees work full time (we have 8,625 full-time employees and only 118 part-time employees).

Our net employment creation for permanent employees in 2013, 2014 and 2015 was as follows:

	2013	2014	2015
Headcount	8,597	8,865	8,743
Net Employment Creation	777	268	-122
Net Employment Creation (as a percentage)	9.9%	3.1%	-1.4%

The number of permanent employees that we had on December 31, 2015 was 1.4 percent lower than it was on December 31, 2014, and our total workforce decreased by six percent over the same period.

We do not anticipate that we will be conducting significant recruitment over the next two years.

The following charts provide additional insights into our workforce profile:

Permanent Employees (full- and part-time) by Business Segment and Gender

	Male	Female	Total
Liquids Pipelines (Canada & U.S.)	2,526	1,050	3,576
Major Projects (Canada & U.S.)	348	248	596
Gas Pipelines, Processing & Energy Services	1,152	424	1,576
Gas Distribution	1,509	913	2,422
Corporate & International	279	294	573
Enterprise-wide	5,814	2,929	8,743

Permanent Employees (full and part-time) by Age and Gender

	Male	Female	Total
Up to 24	143	65	208
25 to 29	640	343	983
30 to 34	937	477	1,414
35 to 39	893	440	1,333
40 to 44	757	396	1,153
45 to 49	744	398	1,142
50 to 54	713	388	1,101
55 to 59	620	285	905
60 and above	367	137	504
Total	5,814	2,929	8,743

Permanent Employees (full- and part-time) by Level and Gender

	Male	Female	Total
CEO	1	0	1
SVP/EVP, President	12	3	15
VP	50	9	59
Director, Senior Director, GM	174	53	227
Senior Manager	240	77	317
Manager	315	121	436
Supervisor	334	137	471
Team Lead	225	97	322
Individual Contributor	4,463	2,432	6,895
Enterprise-wide	5,814	2,929	8,743

Permanent Employees (full- and part-time) by Level and Age Group

<i>Permanent Employees (full- and part-time) by Level and Age Group</i>	up to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 and above	
CEO	0	0	0	0	0	0	0	1	0	1
SVP/EVP, President	0	0	0	0	0	2	7	3	3	15
VP	0	0	0	0	5	19	12	17	6	59
Director, Senior Director, GM	0	0	0	16	43	52	57	43	16	227
Senior Manager	0	0	12	42	76	72	60	41	14	317
Manager	0	0	35	81	96	85	62	51	26	436
Supervisor	0	5	74	94	86	84	70	39	19	471
Team Lead	0	18	57	62	55	41	27	42	20	322
Individual Contributor	208	960	1,236	1,038	792	787	806	668	400	6,895
Enterprise-wide	208	983	1,414	1,333	1,153	1,142	1,101	905	504	8,743

Total Number of Permanent, Temporary and Contract Workers by Business Segment

	<i>Perm anent</i>	<i>Temp orary</i>	<i>Contr actor</i>	<i>Total</i>
Liquids Pipelines (Canada & U.S.)	3,576	53	666	4,295
Major Projects (Canada & U.S.)	596	10	526	1,132
Gas Pipelines, Processing & Energy Services	1,576	3	100	1,679
Gas Distribution	2,422	103	335	2,860
Corporate & International	573	25	244	842
Enterprise-wide	8,743	194	1,871	10,808

Temporary and Contract Employees

As at December 31, 2015, we employed 194 temporary employees. Of this total 100 are male and 94 are female. As at December 31, 2015, we employed 1,871 contract employees working in various capacities. We do not track the gender of contract employees, but can report numbers by business segment.

	<i>Total</i>
Liquids Pipelines (Canada & U.S.)	666
Major Projects (Canada & U.S.)	526
Gas Pipelines, Processing & Energy Services	100
Gas Distribution	335
Corporate & International	244
Enterprise-wide	1,871

We hire temporary contractors for special projects, where appropriate. Occasionally, when the business need arises, we convert temporary contracts into permanent contracts.

Total Workforce by Employees and Agency/Supervised/Interim Workers

	2013	2014	2015
Total Employee	8,846	9,088	8,937
Total Contractor	2,381	2,415	1,871
Total Workforce	11,227	11,503	10,808

Total Number of Employees by Type of Employment Contract (Indefinite/Permanent Contract or Fixed Term/Temporary Contract)

	2013	2014	2015
Permanent	8,597	8,865	8,743
Temporary	249	223	194
Total Employee	8,846	9,088	8,937

Total Number of Permanent and Temporary Employees by Employment Type (full- or part-time)

	2013	2014	2015
Full time	8,702	8,943	8,790
Part time	144	145	147
Total Employee	8,846	9,088	8,937

New Employees by Business Segment and Gender

We hired 651 permanent employees in 2015; 451 are male and 200 are female.

	Male	Female	Total
Liquids Pipelines (Canada & US)	235	87	322
Major Projects (Canada & US)	26	16	42
Gas Pipelines, Processing & Energy Services	82	31	113
Gas Distribution	69	40	109
Corporate & International	39	26	65
Enterprise-wide	451	200	651

STRATEGIC PRIORITIES

- **Attract, develop and retain people to support the successful execution of our business strategy.**
- **Manage, monitor and plan our workforce to align talent and skills to business priorities.**
- **Maintain our employee turnover rate in the 4 to 10 percent range, and our new-hire turnover rate in the 6 to 8 percent range.**
- **Continue to implement an enterprise-wide leadership development program to broaden our leadership base, accelerate the pace of leadership development and enhance our succession management practices.**
- **Maintain our investment in employee training at between 1.25 and 1.5 percent of salary costs.**
- **Maintain our employee engagement level at 78 percent or higher.**

2015 PERFORMANCE

KEY FACTS

As at December 31, 2015, we employed **8,743 full- and part-time permanent employees, and 1,871 contract employees**, in Canada and the U.S.

We invested about 1.01 percent of our total salary costs—which is about **\$1,402 per employee**—in employee training.

In 2014, which was the last year we conducted our Perspectives survey, we achieved an employee engagement score of **74 percent**.

In November 2015, a significant economic downturn in our industry necessitated that we lay off five percent of our employees—325 of whom were permanent, 265 of whom were in Canada and 60 of whom were in the U.S. Throughout the process, we maintained our core values of Safety, Integrity and Respect; and implemented comprehensive change management plans to assist with the transition. We also provided laid-off employees with packages that exceeded legislated minimums, and that included outplacement assistance and employee and family counseling.

Despite this workforce adjustment, we continue to build internal capacity and to focus our efforts on employee retention and engagement, and leadership development. Following is an overview of our 2015 results.

Attracting, Developing and Retaining People in Support of our Business Strategy

Onboarding

Our goal is to ensure that our new employees settle quickly into their jobs and become fully integrated into our company and culture. As such, on their first day, we give them a welcome bag that includes information about Enbridge, an onboarding booklet, a new employee checklist and the Enbridge ring, which symbolizes our shared and individual commitment to the safety of the communities in which we conduct business.

In addition, we involve new employees in a program that gives them a consistent overview of our company, and that highlights the various departments and business segments within it. The program includes new employee workshops, site visits, a buddy system, a curriculum of required online courses, a program guide and checklists, surveys and special intranet pages for new employees. It also includes ongoing support and orientation from the new employees' People Leaders, departments and teams.

Employee Development

Every year, our employees each create Individual Development Plans (IDPs) in partnership with their People Leaders. The plans form the basis of their skills and competency development, and of their career progression. In 2015, 81 percent of our employees completed IDPs.

To ensure that we support the diverse technical, functional and non-technical needs outlined in our employees' IDPs, we offer a variety of approaches to learning:

Enbridge University (ENBU) – We offer high-caliber internal programs through two ENBU campuses in Canada and one in the U.S. In 2015, the three campuses aligned to create the ENBU Framework under which they harmonized their strategy, governance, research and operations to create a consistent enterprise-wide learning experience. ENBU now offers courses in the areas of energy studies, productivity, project and risk management, business analysis and personal excellence. The courses, which are delivered either by external facilitators or subject-matter experts within Enbridge, or through self-directed online modules, focus on the concepts and skills that employees can directly apply in their current roles, or that will help qualify them for future opportunities. In 2015, 8,777 participants took part in 514 courses.

External Courses, Certificates and Degree Programs – Employees can receive support for these through departmental sponsorships or through our enterprise-wide education tuition reimbursement program.

Mentorships- We maintain an enterprise-wide mentorship program that helps employees expand their perspectives, diversify their thinking and accelerate their development. Mentorships can include job shadowing, site visits, business case study reviews, participation in departmental presentations, and one-on-one meetings. In 2015, our mentorship program involved 1,103 protégés and 869 mentors, 413 of whom are both protégés and mentors. At the end of 2015, 94 percent of the participants reported that their mentoring relationship had benefitted their professional development.

Employee and Executive Compensation and Bonuses

We determine compensation using an objective and equitable process during which we consider the internal value of various roles, market rates of pay, and employee skills and competencies. We also use an objective performance management system that enables top performers to achieve higher-than-average salary increases in any given year. Our remuneration policies apply to our company as a whole.

The statistics we present here are based on the salaries of our permanent, full-time, active, non-union employees.

Base Salaries – The base salaries we provide take into consideration an employee’s role and competencies, market conditions, as well as attraction and retention issues. To determine base salaries, we benchmark ourselves against large pipeline, energy and utility companies that are similar to us in size, enterprise value, revenues and risk profile.

Starting Salaries – The starting salaries we offer compare with the minimum wages in Ontario, Alberta and Texas (which are key locations where our main corporate offices are located) as follows:

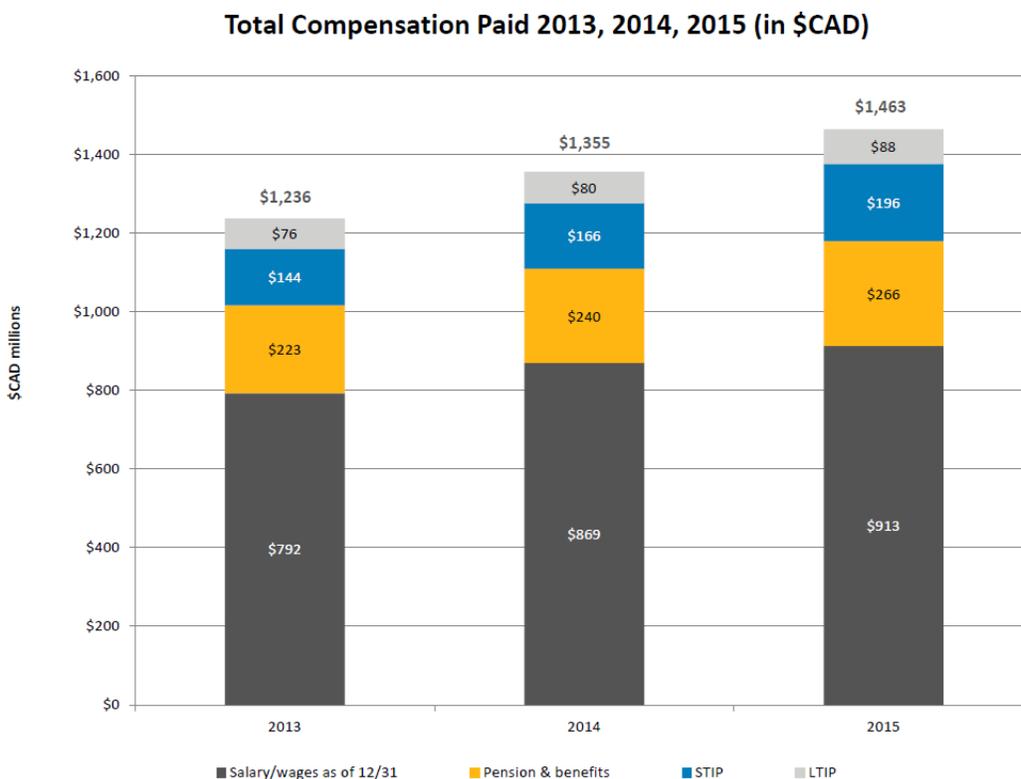
2015 Enbridge Starting Rates versus Provincial/State Minimum Wages				
Region	Minimum Wage	Enbridge Entry-level Minimum Wage	Enbridge Entry-level Maximum Wage	Enbridge Entry-level Rates as a Percentage to Minimum Wage
Ontario	\$11.25	\$18.13	\$28.99	161.1% - 257.7%
Toronto				
Alberta	\$11.20	\$18.13	\$28.99	161.8% - 258.8%
Calgary				
Edmonton				
Texas	\$7.25	\$13.85	\$22.12	191.0% - 305.0%
Houston				

Women’s Salaries Compared with Men’s – Women’s salaries compare with men’s salaries at Enbridge as follows:

2015 Average Salary Ratio Male to Female by Job Ladder Level % (Canada & U.S.)	
Level 1	100.4%
Level 2	100.1%
Level 3	99.2%
Level 4	100.6%
Level 5	102.2%
Level 6	98.5%
Level 7	100.4%

2015 Remuneration Female/Male	Executive Level (Base Salary Only)	Management Level (Base Salary Only)	Management Level Base Salary + Other Cash Incentives (such as bonus)	Non-Management Level (Base Salary Only)
Female	\$267,864	\$167,447	\$201,791	\$82,068
Male	\$273,400	\$169,853	\$204,739	\$94,191

Employee Wages and Benefits – The graph below shows the total amount that we paid in employee wages and benefits in 2013, 2014 and 2015. In 2015, our payroll total was \$913 million, which does not include benefits, and our total compensation paid was \$1,463 million, which include benefits.



CEO and Executive Compensation – Our executive compensation program is designed to motivate our senior leaders to deliver strong corporate performance and to invest the company’s capital in ways that minimize risk and maximize return, while supporting core business goals.

Our Board of Directors is responsible for approving the executive compensation program. Directors review our company’s short-, medium- and long-term business plans, and link our executives’ compensation to the timeframes in the plans, thereby ensuring that our leaders continually deliver value to shareholders, not just in the short term.

We benchmark our executive compensation programs against companies that are a similar size and that have a similar complexity in Canada and the U.S. to ensure that we are competitively rewarding our executives.

Per the table below, in 2015, our President & CEO’s base salary as at December 31, 2015 was \$1,281,000, and his total annualized compensation (reflecting the share of 2012 performance stock options that were attributed to 2015) was \$9,799,182. The ratio of our President & CEO’s total annualized compensation to that of the average employee’s total annualized compensation was 79.

CEO Compensation	Total CEO Compensation
Employee Compensation	Median Employee Compensation
Total annualized compensation of the CEO, or any equivalent position	\$9,799,182
Median or mean total annualized compensation of all employees, except the Chief Executive Officer (or any equivalent position)	\$124,212
Ratio of the mean or median employee total annualized compensation to the total annualized compensation of the CEO	79
Currency	Canadian

In 2015, our President & CEO's base salary increase was 12 percent, and the ratio of his base salary increase to that of the average employee was 5.02. In 2015, his total annualized compensation percent increase was 43.5 percent.

The longest performance period we use to evaluate our President & CEO's variable compensation is six and one-half years. The timeframe we use to pay out variable CEO compensation is as follows:

Timeframe for Variable Payout of CEO Compensation	% of Total Variable Compensation
0 - 3 years	35
Longer than 3 years	65

Variable CEO compensation can vest for a maximum of five years.

We have a clawback provision in place that would permit us to recoup over-payments made to executives in the event of fraudulent or willful misconduct.

For detailed remuneration data for each member of our Executive Leadership Team, please see Enbridge's 2016 Management Information Circular.

Benefits

Following is an overview of the benefits we offer in Canada and the U.S. The benefits differ by country mostly because of the differences in the two countries' national health care systems.

Canadian Benefits – Our Canadian benefits program for regular full- and part-time employees is a flex program that allows each employee to choose the plan that best meets his or her needs. Employees use employer-provided flex credits to pay for their benefit choices. The flex credit formula is base salary percentage + family status (single, couple, family) + participation in the Enbridge Savings Plan (up to 2.5 percent of base salary).

Employees must purchase a minimum level of life insurance (1x salary) and long-term disability insurance (60 percent of base salary). All other benefit purchases are at the employee's discretion. We pay surplus credits to the employee as taxable cash.

In addition to the benefits that we provide under our flexible benefits program, we also provide a set of fixed or mandatory benefits to full- and part-time regular employees.

In addition, our Canadian program provides a limited set of fixed benefits to full- and part-time temporary employees, casual employees and summer/co-op students. Enbridge fully pays all fixed benefits, and the coverage for all benefit plans is effective on the employee's date of hire. The table below shows details of our various fixed benefits.

Canadian Benefit Eligibility							
Benefit	Employee Type						
	Regular Full Time 40 hrs	Regular Part Time 24 – 39 hrs	Regular Part Time 16 – 23 hrs	Temp Full Time 40 hrs ³	Temp Part Time 16 – 39 hrs ³	Casual	Summer / Co-op Students
Fixed/Mandatory Benefits: Benefits provided by Enbridge at no cost to the employee. Benefits are effective on the date of hire.							
Flex Credits ¹	Yes	Yes	Yes	No	No	No	No
Basic Life Insurance*	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Business Travel Insurance	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Short-Term Disability	Yes	Yes	Yes	No	No	No	No
Long-Term Disability*	Yes	Yes	Yes	No	No	No	No
Parking Allowance	Yes	Yes	Yes	No	No	No	No
Education Reimbursement	Yes	Yes	Yes	No	No	No	No
Dependent Child Scholarship	Yes	Yes	Yes	No	No	No	No
Vacation	Yes	Yes	Yes	No	No	No	No
Scheduled Days Off ²	Yes	Yes	Yes	No	No	No	No
Recognized Paid Holidays	Yes	Yes	Yes	Yes	Yes	No	Yes
Wellness Program	Yes	Yes	Yes	No	No	No	No
Emergency Childcare Reimbursement	Yes	Yes	Yes	No	No	No	No
Alternative Work Arrangements	Yes	Yes	Yes	Yes	Yes	No	No
Pension Plan	Yes	Yes	Yes	No	No	No	No
¹ Regular employees use flex credits to pay for benefits marked with an “*”; other mandatory/fixed benefits are paid for by Enbridge outside the flex plan. Benefits for Temp, Casual and Student employees are paid for directly by Enbridge.							
² Employee is eligible for an SDO in each full month worked.							
³ Temporary Union employees are eligible for flex benefits same as regular employees except they do not receive coverage for STD/LTD and cannot participate in the savings plan.							
Flexible Benefits: Available only to Regular employees—employees use flex credits to pay for these benefit choices. If available flex credits exceed the cost of benefits, the balance flows to the employee as taxable cash; if the cost of benefits exceeds available flex credits, the employee pays the additional costs through payroll deduction.							
Employee Optional Life*	Yes	Yes	Yes	No	No	No	No
Spouse Optional Life*	Yes	Yes	Yes	No	No	No	No
Child Optional Life*	Yes	Yes	Yes	No	No	No	No
Employee Optional AD&D*	Yes	Yes	Yes	No	No	No	No
Spouse Optional AD&D*	Yes	Yes	Yes	No	No	No	No
Child Optional AD&D*	Yes	Yes	Yes	No	No	No	No
Optional LTD*	Yes	Yes	Yes	No	No	No	No
Extended Health Care*	Yes	Yes	Yes	Yes ⁴	Yes ⁴	No	No
Dental Care*	Yes	Yes	Yes	Yes ⁴	Yes ⁴	No	No
Health Spending Account*	Yes	Yes	Yes	No	No	No	No
Savings Plan	Yes	Yes	Yes	No	No	No	No

⁴Temporary employees do not receive a choice of health and dental plans but, rather, they receive an assigned level of coverage that is fully employer paid.

U.S. Benefits – Our U.S. benefits program is flexible in that it allows employees to elect the benefit plans and coverage that best meets their needs and the needs of their families. Our U.S. benefit package differs from our Canadian benefit package because of the differences in the two countries' healthcare delivery systems, and because of the cost impact that benefits have in the U.S. Also, the cost of benefits in the U.S. is not determined by a factor of

the employee's pay, but rather by the cost of the voluntary benefits provided to each employee and the cost of any voluntary benefits elected by the employee.

Regular employees that work at least 30 hours per week upon hire are provided with various basic benefits paid by Enbridge, as outlined in the table below. Most of these benefits are effective the date the employee is hired, unless indicated otherwise in the table. The Basic Life and Basic Accidental Death and Dismemberment (AD&D) insurance provided is one times annual base pay for the employee, \$15 thousand for spouse and \$5 thousand for each dependent child. The business travel insurance provided for employees is two times their annual base pay. The leave programs vary based on business segment and work location. Employees of our Gas Pipelines, Processing & Energy Services business segment (GPP&ES) receive short-term disability, paid time off (PTO) and flex days off, whereas employees of our Liquids Pipelines business segment (LP) and Major Projects business unit (MP) receive temporary disability, vacation and scheduled days off. The long-term disability program applies to all U.S. employees and provides a benefit that is 60 percent of their base pay.

Regular employees that work at least 30 hours per week are also eligible for various voluntary benefits that involve cost sharing, as outlined in the table below. Employees must elect voluntary benefits within 30 days of their date of hire to be eligible for these benefits, otherwise they have to wait until the next annual benefits open enrollment period to add them.

Non-Regular employees who work at least 30 hours per week, have limited benefit coverage and options, as indicated in the table below.

U.S. Benefit Eligibility						
Benefit	Employee Type					
	Regular FT (40 hrs/wk)	Regular PT scheduled 30+ hrs/wk	Regular PT scheduled > 30 hrs/wk	Temporary classified as a "Laborer"	Temp scheduled 30+ hrs/wk (not a "Laborer")	Temp scheduled > 30+ hrs/wk (not a "Laborer")
Basic Benefits: Benefits provided by Enbridge at no cost to the employee.						
Benefits for eligible employees are effective at the date of hire unless indicated differently below.						
Basic Life Insurance	Yes	Yes	No	No	No	No
Basic AD&D Insurance	Yes	Yes	No	No	No	No
Business Travel Insurance	Yes	Yes	Yes	Yes	Yes	Yes
Paid Time Off (PTO) /Vacation	Yes	Yes	No	No	No	No
Flex Days Off ¹ /Scheduled Days Off	Yes	Yes	No	No	No	No
Recognized Paid Holidays	Yes	Yes	No	Yes	Yes	No
Short-Term/Temporary Disability	Yes	Yes	No	No	No	No
Long-Term Disability	Yes	Yes	No	No	No	No
Wellness Program	Yes	Yes	No	No	No	No
Employee Assistance Program	Yes	Yes	Yes	No	No	No
Emergency Childcare Reimbursement	Yes	Yes	No	No	No	No
Enbridge Cares Program	Yes	Yes	No	No	No	No
Higher Education Awards ²	Yes	Yes	No	No	No	No
Alternative Work Arrangements	Yes	Yes	No	No	No	No
Pension Plan	Yes	Yes	Yes	Yes ³	No	No
¹ Employee is eligible for first Flex Day Off if hired in first month of quarter, otherwise must wait until following quarter.						
² Employee must have one year of service at June 1 to be eligible for program.						
³ Temporary Laborers are eligible after one year of vesting service.						
Voluntary Benefits: Employee elected benefits that require them to pay a portion of the cost. The effective date of these benefits is the first of the month following their date of hire until indicated differently.						
Supplemental Life Insurance	Yes	Yes	No	No	No	No
Supplemental AD&D Insurance	Yes	Yes	No	No	No	No
Medical & Pharmacy Plan	Yes	Yes	No	No ⁴	No ⁴	No
Dental Plan	Yes	Yes	No	No	No	No
Vision Plan	Yes	Yes	No	No	No	No

Flexible Spending Accounts	Yes	Yes	No	No	No	No
Savings Plan–401(k)	Yes	Yes	No	Yes ⁵	No	No
Metlaw/Hyatt Legal Services	Yes	Yes	No	No	No	No
College Savings (529) Plan	Yes	Yes	No	No	No	No
Transportation (<i>Houston Only</i>)	Yes	Yes	No	No	No	No
Educational Reimbursement	Yes	Yes	No	No	No	No
⁴ Temporary employees meeting the eligibility requirements of the Affordable Care Act are offered coverage.						
⁵ Temporary Laborers are eligible after one year of vesting service.						

Employee Wellness Programs

As with many employers, we offer traditional benefits, including access to an Employee and Family Assistance Program. However, we have opted to be more innovative so we can more positively impact the health and wellbeing of our people.

In 2014, we implemented a Wellness Program in the U.S. that provides employees with the tools, resources and financial incentives to promote and reward healthy behaviors. Then in May 2015, we launched a Canada-wide wellness program, including several enhancements to align with current best practices. In 2016, we will update the program in the U.S. to harmonize with the Canadian program.

We designed our new Wellness program in Canada in partnership with Preventure, a company that helps organizations develop and launch tailored wellness programs. We designed the program to include all of our employees and their families, regardless of their health status or wellness goals. The program provides tools, resources and opportunities to engage our people and their families in maintaining and improving three aspects of their wellbeing: physical, mental and financial.

The focus on these three aspects of individual health is intentional. We wanted to give employees an integrated program that goes beyond physical health, resulting in a more holistic, well-rounded program.

Examples of the tools the program offers include: tracking steps or minutes of activity, understanding and tracking the types of foods consumed, recognizing and understanding mental health and creating a budget. It is designed to enable people of any ability to focus on their health and to take action.

Program features include:

- a wellness portal allowing employees and their spouses to access wellness program information, tools, resources and challenges from work and home,
- annual confidential on-site biometric screening clinics offered free of charge at Enbridge field and office locations across Canada allowing our employees and their spouses to learn about their biometric health numbers and identify potential health risks,
- health risk assessments,
- exercise logs,
- exercise examples and planner,
- meal planning and food log,
- recipe analyzer,
- challenges relating to physical, mental and financial health,
- online workshops, and
- a local wellness ambassador.

Retirement Planning

In addition to the benefits that we provide under our formal benefits programs, we offer our employees information on retirement planning and pension management. We also provide pre-retirement workshops to employees 45 years or older to help them transition to retirement. These workshops include segments on financial planning, goal setting and lifestyle changes.

Defined Benefit Plan Obligations

We maintain pension plans that provide defined benefit and/or defined contribution pension benefits to employees. No employee contributions are required and participation is mandatory for eligible employees in Canada and the U.S.

Pension costs and obligations for the defined benefit pension plans are based on actuarial calculations using assumptions, including discount rates, expected rates of return on plan assets, projected salary increases, retirement age, mortality and termination rates. Our management determines the assumptions and an external actuary reviews them each year.

At year-end 2015, the value of the assets in our Canadian and U.S. defined benefit pension plans was \$2,229 million and our pension obligation was \$2,551 million, leaving a shortfall of \$322 million which equals about 0.8 percent of our market capitalization. We amortize the actual results—which could differ from our assumptions and could materially affect the recognized expenses and recorded obligations—over future periods.

We remain able to pay the current benefit obligations using cash from operations. In 2016 we expect to pay approximately \$118 million into our defined benefit pension plans.

Benefits payable from the defined benefit plans are based on members' years of service and average remuneration. We contribute to these plans in accordance with applicable legislation and independent actuarial valuations. We invest the pension funds primarily in publicly traded equity and fixed-income securities. We do not offer a sustainability-focused investment option.

For more information, please see Enbridge Inc.'s Consolidated Financial Statements for the year ended December 31, 2015.

Managing, Monitoring and Planning our Workforce to Align Talent and Skills with Business Priorities

We manage, monitor and plan our workforce such that we align key talent and skills with our business priorities. Following are some of the ways we conduct this work:

Performance Management

At least twice each year—but quarterly if possible—employees meet with their People Leaders to discuss their short- and long-term goals, job accountabilities, safety-related activities and professional development. They enter the results of their discussions in our online performance management system and in Individual Development Plan documents.

In 2015, we created year-end performance review documents for 94 percent of our permanent employees through our online performance management system. The remaining six percent included unionized employees whose feedback was captured through a paper-based system, employees on long-term disability insurance and small groups of employees in remote operating areas.

ENBU supports the performance management process by providing courses on how to conduct career conversations, write objectives, and give and receive performance feedback. We also arm employees with job ladders that outline career options.

Incentives for Managing our Response to Climate Change

We incent certain individuals to effectively manage our responses to climate change. Our CSO, for example, has a mandate to increase our level of engagement in discussions regarding how climate change should impact our decision making and investments. Some of her responsibilities—such as disclosing our climate change-related performance, engaging with business segments on their climate action plans, and evaluating climate change risks and opportunities—are tied to her bonus.

Similarly, employees in our Green Power, Transmission and Emerging Technology group (GPT&ET) receive bonuses for securing new wind, solar and geothermal energy and waste heat recovery projects that meet our investment criteria and that address climate change.

Executive Annual Bonuses Tied to Non-financial Performance

We tie a percentage of our annual executive bonuses to performance metrics that pertain to safety, the maintenance of the fitness of our systems, and environmental performance. The following chart shows the percentages that these areas account for at the company, business segment and individual levels, as they apply to our CEO, our business segment EVPs and corporate EVPs.

The Overall Total column shows the percentage—or percentage range—of the CEO’s and EVP’s ultimate annual bonus that is tied to their non-financial performance metrics. For example, between 15.5 percent and 21.5 percent of our CEO’s annual bonus is tied to safety, the maintenance of the fitness of our systems, and environmental performance.

Percentage of Executive Annual Bonuses Tied to Safety, Maintenance of the Fitness of our Systems, and Environmental Performance				
	Enterprise Level	Business Segment Level	Individual Performance Level	Overall Total
Chief Executive Officer	60% No alignment (all financial performance metrics ¹) =0%	20%, 100% of which is tied to non-financial performance metrics ² pertaining to safety, the maintenance of the fitness of our systems, and environmental performance (67%), and other (33%) ≈~13.5% overall	20%, 40% of which is tied to non-financial performance metrics pertaining to safety =8% overall	15.5 - 21.5% (higher end more likely)

Executive Vice Presidents (business segments)	25% No alignment (all financial performance metrics) =0%	50%, 40% of which is tied to non-financial performance metrics pertaining to safety, the maintenance of the fitness of our systems, and environmental performance = 20% overall	25%, at least 40% of which is tied to non-financial performance metrics pertaining to safety =10% overall	22.5% - 30% (higher end more likely)
Executive Vice Presidents (corporate)	60% No alignment (all financial performance metrics) = 0%	20%, 10% of which is tied to non-financial performance metrics pertaining to safety, the maintenance of the fitness of our systems, and environmental performance = 9% overall	20%, 10% of which is tied to non-financial performance metrics pertaining to safety = 2% overall	9%

¹ Financial performance metrics may include earnings per share and other external financial success metrics.

² Non-financial performance metrics may include percentage improvement in system leak-detection sensitivity and reliability; number of system inspections; number of action items resulting from process safety management audits closed; governance, compliance and ethics initiatives; Environment, Health & Safety training course completions; number of spills and releases; number of safety observations recorded by employees; frequency of process safety incidents; total recordable injury frequency (employee and contractor); number of action items closed from incident investigations; employee retention; and percentage of employees having career conversations.

Maintaining our Employee Turnover Rate

We aim to maintain our voluntary employee turnover rate in the four to 10 percent range, and our voluntary new employee turnover rate in the six to eight percent range. In 2015, our voluntary employee turnover rate as a percentage of our total workforce population was three percent and our voluntary new employee turnover rate was seven percent. Both fell within our target range.

Turnover Rate by Gender and Business Segment

Our total turnover for 2015 was 835 permanent employees. As at December 31, 2015, our turnover rate by gender and business segment was as follows.

Turnover Rate by Age Group

As at December 31, 2015, our turnover by age group was as follows:

		Liquids Pipelines (Canada & U.S.)	Major Projects (Canada & U.S.)	Gas Pipelines, Processing & Energy Services	Gas Distribution	Corporate & International	Enterpri se-wide
Voluntary	Male	1.98%	3.16%	5.73%	1.06%	3.23%	2.61%
	Female	4.38%	5.24%	6.13%	1.97%	2.04%	3.72%
	Total	2.68%	4.03%	5.84%	1.40%	2.62%	2.99%
Involuntary	Male	4.91%	12.36%	2.69%	1.79%	11.11%	4.40%
	Female	5.43%	12.90%	6.37%	1.97%	8.16%	5.39%
	Total	5.06%	12.58%	3.68%	1.86%	9.60%	4.74%
Retirement	Male	1.27%	1.44%	1.74%	2.92%	1.79%	1.82%
	Female	1.33%	0.81%	0.71%	2.74%	0.68%	1.57%
	Total	1.29%	1.17%	1.46%	2.85%	1.22%	1.74%
Deaths in Service	Male	0.04%	0.57%	0.17%	0.07%	0.00%	0.10%
	Female	0.10%	0.00%	0.00%	0.00%	0.34%	0.07%
	Total	0.06%	0.34%	0.13%	0.04%	0.17%	0.09%
Total Turnover	Male	8.19%	17.53%	10.33%	5.83%	16.13%	8.94%
	Female	11.24%	18.95%	13.21%	6.68%	11.22%	10.75%
	Total	9.09%	18.12%	11.10%	6.15%	13.61%	9.55%

Return-to-Work and Retention Rates Following Parental Leave

In 2015, 98 of the permanent employees who had left on parental leave in either 2014 or 2015 returned to work. Seventy-three of the 79 women who returned (92.4 percent) were employed with Enbridge as of December 31, 2015, and all of the 19 male employees who returned to work were employed with Enbridge as of December 31, 2015.

Continue to Implement an Enterprise-wide Leadership Development Program

In 2015, as part of our continuing efforts to cultivate a shared leadership philosophy and strengthen our leadership capabilities across the company, we completed the third year of our five-year plan to design and deliver customized leadership development programs and resources, and to establish clear accountabilities for leadership development through defined competencies.

As part of this initiative, we:

- engaged 504 of our leaders in leadership symposia,
- hosted 11 new leader transition workshops and webinars for 207 new or newly promoted leaders,
- designed the Leadership Foundation's certificate program for our first-level leaders, which is intended to strengthen existing leadership practices, further develop skills and enhance leaders' effectiveness,
- launched nine enterprise-wide Leadership Experience Action-based Development (LEAD) programs for LEAD 1 and LEAD 2 certificate programs, each of which involved up to 26 first- and mid-level leaders (253 high-potential leaders participated),
- designed the LEAD 3 Excellence certificate program for our senior leaders and began identifying candidates for it,
- worked with Enbridge University (ENBU) to offer 57 courses on topics ranging from presentation skills, emotional intelligence, coaching and financial acumen to 688 leaders,
- introduced a variety of leadership resources, such as action videos, quick reference guides and leadership spotlights, to provide timely support.

In addition, we facilitated a number of job rotations, lateral moves and promotions among our senior leaders and ensured that 360-degree feedback assessments were completed for all of our executive and senior leaders.

We also enhanced our commitment to developing and retaining senior leaders for succession purposes. At present, 91 percent of our executive leaders and 87 percent of our senior leaders have at least one successor in place.

Critical Talent Retention

Identifying and managing critical talent is key to our business continuity and to the execution of our corporate plans. While we know that all employees contribute to the successful execution of our strategic priorities, we recognize that certain roles and individuals have a greater impact on business-critical outcomes.

As such, we identify and manage critical talent and critical roles as part of our Talent Review and Succession Planning process. We manage the risk of losing critical talent primarily by providing differentiated rewards, variable compensation and targeted career planning and development to certain employees. In 2015, we helped our leaders identify, select and manage critical talent more consistently across the organization.

Maintain our Investment in Employee Training

In 2015, we invested about 1.01 percent of our total salary costs—which is about \$1,402 per employee—in employee training.

Although we track our training information through an enterprise-wide Learning Management System (LMS), and although all of our employees have access to it, some of our business segments have specific training needs that they manage outside the system.

Based on just our LMS data, in 2015, our employees—including permanent, temporary and contract employees—benefited from 3,890 instructor-led offerings and 565 web-based offerings of 1,254 courses.

On average, employees completed 10.9 courses each, which averages out to 19.4 hours of learning per employee. Female employees made up 33.8 percent of the learners, with an average of 10.5 courses each, and an average of 20.1 hours of learning. Male workers made up the remaining 66.2 percent of learners, with an average of 11.8 courses each, and an average of 21.6 hours of learning.

One of our technical operations groups also maintains an LMS and, in 2015, it offered 469 courses to 1,767 employees and temporary employees to meet their specific training needs. The employees to whom the group offered the courses comprised 82.4 percent male learners and 17.6 percent female learners. On average, the male learners in this group took 27.7 courses for 97.0 hours, while the female learners took 10.2 courses for 32.5 hours.

When we analyze learning by leadership role, our 2,740 executives, vice presidents, directors, managers and supervisors/leads completed an average of 10.9 courses each, which equals an average of 21.1 hours of learning. Males in this same group averaged 21.2 hours in 11.1 courses, while females averaged 20.8 hours in 10.4 courses.

Our 9,995 individual contributors, including advisors, analysts, coordinators, administrative assistants and others, completed an average of 10.8 courses each, with an average of 19 hours of learning. We do not track gender among our contractors; however, of our 7,055 employee individual contributors in 2015, males took an average of 23.1 hours of training in 12.7 courses, while females took an average of 20.7 hours in 10.8 courses.

Our investments in training and education enable our employees to acquire and enhance the skills they need to perform their best in their current roles, and to prepare for future roles. With regard to preparation for future roles, in 2015, internal full-time, part-time or temporary employee candidates filled 34.4 percent of our open positions.

Maintain our Employee Engagement Level

Through our Perspectives survey, which we invite our employees to participate in every two years, employees have a dedicated channel through which they can communicate their feedback to leaders, and we have a clear method by which to measure our employee engagement levels.

In 2014, which was the last year we conducted the survey, we achieved an employee engagement score of 74 percent. As a result of that score, we focused on five key areas for improvement:

- **Managing Performance** – We standardized our methodology for establishing performance objectives across the company. We also encouraged more frequent performance reviews and feedback between leaders and employees, and trained leaders and employees on how to conduct effective performance review discussions.
- **Work Process** – We examined ways to streamline work processes.
- **Recognition** – We implemented the Stellar recognition program as a way of recognizing and celebrating the individuals and teams who embody Enbridge's core values in their work and in their interactions with customers and other stakeholders.
- **Career Management** – We introduced a standardized online tool that employees can use to track their career conversations. We also provided training to leaders on how they can enhance their team members' career development.
- **Work Life Balance** – We worked with Preventure, a leading corporate wellness company, to create and roll out a new wellness program in Canada. The program helps employees improve their physical, mental and financial wellbeing regardless of their current state. The U.S. Wellness program, rolled out in 2014, will be updated in 2016.

We will conduct the next Perspectives survey in 2016, at which time we will again develop enterprise-wide and local action plans based on the results.

BUSINESS CONDUCT & ETHICS

OVERVIEW

Our intent is always to comply with all legal and regulatory requirements, including those pertaining to employment practices and business conduct. We are also committed to preventing all forms of corruption within the scope of our business and operations.

MANAGEMENT APPROACH

Role of Employees

Our directors, employees (including executives and senior management), and contractors all play an integral role in ensuring that we carry out business ethically, legally and responsibly. Their roles are reflected in our Statement on Business Conduct, our Ethics and Conduct Hotline and our Whistle Blower Policy, which provide mechanisms for employees to report non-compliance with any applicable legal requirements or Enbridge policy.

Compliance Program

Our Compliance Program mainly focuses on ensuring that our employees and contractors understand and uphold our core values of Integrity, Safety and Respect, our Statement on Business Conduct and all other Enbridge policies. It is designed to minimize opportunities for unethical behavior and support and demonstrate our commitment to corporate responsibility and good governance.

As part of our Compliance Program, we routinely monitor compliance and take steps to improve our compliance and ethics culture through the following policies, practices and procedures:

Policies

We have established a number of policies designed to ensure that our employees and contractors conduct their work ethically, legally and responsibly.

Compliance Policy - Our Compliance Policy defines clear responsibilities for Enbridge's Vice President, Chief Compliance & Privacy Officer, who oversees our Compliance Program along with Compliance Officers in our various business segments.

Enbridge Statement on Business Conduct - The Enbridge Statement on Business Conduct applies to everyone who works at Enbridge, including our directors, officers and employees, as well as to consultants and contractors retained by Enbridge. Failure to comply may result in disciplinary action up to and including termination.

Whistle Blower Policy - We introduced our Whistle Blower Policy a number of years ago to protect the integrity of our accounting, auditing and financial control processes. Employees and outside parties can confidentially report concerns about financial or accounting irregularities or unethical conduct to the chair of the Audit, Finance & Risk Committee of Enbridge's Board of Directors. All submissions may be made anonymously and any complaints submitted in a sealed envelope marked "private and strictly confidential" are delivered to the committee chair unopened. Complaints can also be made anonymously through Enbridge's Ethics and Conduct Hotline.

Enbridge Ethics & Conduct Hotline

We maintain an Ethics and Conduct Hotline (Hotline) that individuals can use at any time to raise issues (anonymously if they desire) through a third-party service provider that also provides similar services to other major North American companies. The service provider delivers each Hotline report directly to our Vice President, Chief Compliance & Privacy Officer, as well as to the responsible business segment Compliance Officer. All reports are investigated to the extent possible so the issues raised can be addressed and resolved. Persons who report a matter through the Hotline have the option to identify themselves or to remain anonymous.

Enbridge Gas Distribution Office of the Ombudsman

Enbridge Gas Distribution (EGD), which is one of the affiliates under our Gas Distribution business segment (GD), maintains an Office of the Ombudsman as part of a formal complaint-escalation process to resolve customer complaints that its call center or Claims Department are unable to resolve.

Tone at the Top

We have had a Chief Compliance Officer and Compliance Officers in our three primary operating business segments since 2009. In 2012, we appointed our first dedicated Chief Compliance Officer, who is responsible for enterprise-wide oversight of our overall state of compliance and for enhancing our culture of ethics and integrity. In 2015, the role was expanded to include responsibility for Enbridge's privacy program and it is now titled Vice President, Chief Compliance & Privacy Officer.

Messages from the Chief Executive Officer and the Vice President, Chief Compliance & Privacy Officer regarding the importance of ethical behavior are communicated to all of our employees and provisioned contract staff at least once per year through the delivery of an on-line Statement on Business Conduct training program.

Internal Audit

Our Internal Audit department helps us accomplish our objectives by bringing a systematic and disciplined approach to evaluating and improving the effectiveness of our governance and risk management processes and internal controls. Internal Audit is responsible for evaluating the efficiency and effectiveness of our operations; how we safeguard our assets; our risk management procedures; and our internal controls framework. Internal Audit is also responsible for evaluating the efficiency and effectiveness of our compliance with laws, regulations, policies, procedures and contracts.

Training

As a condition of employment, all new employees and provisioned contractors are required to complete a course on our Statement on Business Conduct. All employees and provisioned contractors are required to complete Statement on Business Conduct training each year. The on-line training program also requires all employees and provisioned contractors to certify their compliance with our Statement on Business Conduct during the previous calendar year.

In 2015, Compliance Department personnel also provided dozens of in-person training sessions and presentations on compliance-related issues to hundreds of employees and provisioned contractors.

Compliance Investigations and Reports

Our Compliance Officers coordinate investigations into material compliance matters, whether they arise directly from employees or as a result of incidents, Hotline reports or complaints received under the Whistle Blower Policy. Depending on the nature of the matter in question, our Vice President, Chief Compliance & Privacy Officer reports all

material events related to non-compliance, auditing matters or general ethics issues either to the Audit, Finance & Risk Committee or the Safety & Reliability Committee of Enbridge Board of Directors.

We engage employees who possess expertise in the area of audits and investigations to assist our Compliance Officers with investigations into material non-compliance issues. If necessary, we retain third-party experts to assist with these investigations.

Non-Retaliation

We are committed to the principle that no retaliatory action may be taken against anyone who raises non-compliance issues in good faith. Our adherence to the non-retaliation principle is a key component of a strong culture of compliance and ensures that employees, contractors and the public can be confident that issues will be fairly and impartially reviewed and addressed.

Compliance/Ethics Affiliations

Our Compliance Officers and Enbridge employees in other departments participate in activities sponsored by a number of organizations that promote the advancement of ethical business conduct throughout Canada and the U.S. Some of the organizations to which Enbridge employees belong include the Society of Corporate Compliance & Ethics, the Compliance & Ethics Leadership Council of the Corporate Executive Board, the Association of Certified Fraud Examiners, and the Corporate Ethics Management Council of the Conference Board of Canada.

Human Rights

Our Statement on Business Conduct contains provisions that support the protection of human rights and freedoms within our sphere of influence. In addition, all of our business segments have adopted policies that established the rights of all employees and contractors to enjoy a workplace free of harassment and discrimination. *For more information, please see the Employee Relations section of this report.*

Addressing the Risk of Fraud

As part of our continuing effort to eliminate opportunities for fraud (including online fraud), during 2015 we provided fraud awareness training to all employees and provisioned contractors in Canada and the U.S. We deliver fraud awareness training once every three years.

In addition, to mitigate corruption-related risk, we routinely conduct due diligence on prospective contractors, consultants, agents and counterparties in connection with our business. *For more information please see the Sustainable Supply Chain & Procurement section of this report.*

Addressing Corruption

We are committed to preventing all forms of corruption, including bribery and kickbacks. It is never permissible for anyone who works for Enbridge to offer or accept payments, inappropriate gifts or anything of value that could be seen as influencing a business decision. We take steps to ensure that all interactions with public officials (including interactions involving third parties or agents acting on Enbridge's behalf) comply with applicable laws prohibiting bribery and corruption wherever we conduct business.

We provide online anti-corruption training to all employees and provisioned contractors whose roles, responsibilities or geographic focus may directly or indirectly involve corruption or bribery-related risks. The training covers applicable anti-corruption and anti-bribery laws and information about how these laws can affect our business globally. It also provides guidance regarding our policies, expectations and reporting procedures to help identify and avoid corruption-related risks.

Anti-Competition Prevention

Regarding competition and anti-trust legislation, Enbridge's Statement on Business Conduct requires Enbridge and our employees to comply with all applicable competition and anti-trust legislation.

Behavior that is prohibited under such legislation includes activities such as agreements with competitors to allocate markets or customers, fix prices or production, or rig bids.

STRATEGIC PRIORITIES

- **Continually improve on our efforts to reinforce and enhance an ethical and compliant culture.**
- **Commit to good corporate governance and strong business ethics by adhering to all laws, regulations and legal requirements in all jurisdictions in which Enbridge operates.**
- **Ensure that the structure, oversight and management of Enbridge's compliance program is aligned with Enbridge's core values and policies.**

2015 PERFORMANCE

KEY FACTS

In 2012, we appointed our first dedicated Chief Compliance Officer, who is responsible for enterprise-wide oversight of our overall state of compliance and for enhancing our culture of ethics and integrity. **In 2015, the role was expanded to include responsibility for Enbridge's privacy program** and it is now titled Vice President, Chief Compliance & Privacy Officer.

The **Enbridge Statement on Business Conduct** is our formal statement of expectations for all individuals engaged by Enbridge.

We maintain an **Ethics and Conduct Hotline** that individuals can use at any time to raise issues through a third-party service provider.

Enbridge Gas Distribution (EGD) has an **Office of the Ombudsman** as part of a formal complaint-escalation process to resolve customer complaints.

Issues and Complaints

Ethics & Conduct Hotline Reports

In 2015, we received 106 new Hotline reports, 59 of which related to human resources issues, 15 of which related to safety issues, two of which related to financial concerns, 14 of which related to allegations of misappropriation or misuse of assets, four of which related to policy and process integrity, and 12 of which related to customer concerns. By way of comparison, we received 93 hotline reports in 2014. Because some of the reports did not disclose any connection to Enbridge, we were not able to investigate them. All other reports were investigated and any confirmed events of non-compliance with Enbridge policy or the law were addressed appropriately.

Issues Reported to the Enbridge Gas Distribution Office of the Ombudsman

In 2015, nearly 7,700 issues were reported to the EGD Office of the Ombudsman, the majority of which (approximately 5,600) pertained to billing and collections. With few exceptions, the issues were resolved to the customers' satisfaction.

Incidents of Corruption

We discovered that a former employee had converted Enbridge fleet vehicles for personal use. We referred the matter to the local police for investigation and agreed to cooperate in any criminal proceedings against the individual.

Customer Data Incidents

In EGD, a sorting error led to the inadvertent disclosure of customer billing information of 10 customers to another customer, which we quickly discovered and resolved. *For more information, please see the Customer Relations section of this report.*

Incidents of Discrimination

We are not aware of any ruling or decision of a court, administrative tribunal or quasi-judicial authority in 2015 that contained a finding that we discriminated against anyone.

Significant* Fines, Penalties and Non-monetary Sanctions for Non-compliance with Laws and Regulations

Canada

In 2014, the Ontario Ministry of the Environment and Climate Change charged Enbridge with an offence under the Ontario Water Resources Act related to storm water ponds at the Sarnia Terminal. In 2015, a settlement was reached with the Ontario Ministry of the Environment and approved by the Ontario Court of Justice under which Enbridge agreed to plead guilty and pay a fine in the amount of \$70,000, plus a 25 percent victim surcharge. The fine has been paid and the guilty plea has been accepted.

In 2015, the National Energy Board (NEB) issued six Administrative Monetary Penalties (AMPs) to Enbridge in respect of activities on Enbridge's Canadian Liquids Pipelines system. The first AMP resulted from a project that was not constructed in accordance with Enbridge's NEB application, but the amount of the AMP (\$16,000) fell below Enbridge's reporting threshold. A review of this AMP was not requested. Three of the AMPs were subsequently rescinded by the NEB in response to applications for review filed by Enbridge.

The two remaining AMPs were reduced in response to Enbridge's applications for review (one of the AMPs was reduced from \$52,000 to \$28,000 and the other one was reduced from \$100,000 to \$76,000, although the latter AMP remains under review by the NEB). Both of these AMPs were based upon alleged violations of applicable environmental guidelines or construction plans. The NEB's decisions to reduce these AMPs were received by Enbridge during the first quarter of 2016 (shortly before Enbridge's *2015 CSR & Sustainability Report* was finalized).

U.S.

In 2015, Enbridge paid a US\$45,000 penalty imposed by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) for deficiencies found with certain tanks at our Tank Farm Terminal in Cushing, Oklahoma. We have taken steps to remediate the deficiencies. There is a related US\$38,700 civil penalty assessed by PHMSA that remains unresolved.

In 2014 the Michigan Department of Environmental Quality (MDEQ) issued a Notice of Violation (NOV) related to facility hazardous waste disposal status and record-keeping practices on the Eastern Access Project. In 2015 the MDEQ issued an Administrative Consent Order in connection with the NOV and Enbridge paid a penalty of US\$56,000 in early 2016 as a result.

In 2015, as a result of Enbridge's 2010 crude oil spill in Michigan, Enbridge and the State of Michigan (Department of Environmental Quality) reached a settlement that, according to the State of Michigan, exceeded US\$75 million. Under the settlement, Enbridge agreed to:

- provide at least 300 acres of wetland through restoration, creation, or banked wetland credits, to remain as wetland in perpetuity (the State of Michigan estimated the cost to be US\$30 million),
- mitigate impacts to the banks, bottomlands, and flow of Talmadge Creek and the Kalamazoo River for the purpose of enhancing the Kalamazoo River watershed and restoring stream flows in the River (US\$5 million),
- continue reimbursing the State of Michigan for costs arising from overseeing Enbridge activities since the 2010 spill (as of July 2014, Enbridge had reimbursed the State more than US\$12 million), and
- continue monitoring, restoration and invasive species control activities within the state-regulated wetlands that were affected by the spill and associated response activities.

In addition, although these activities were not part of the settlement, Enbridge had already completed the following projects over the last few years during the negotiation process:

- removal of the Ceresco dam and complete associated river restoration activities (US\$18 million), and
- completion and/or enhancement of five initial river access sites (and later six) to enhance public recreational access to the Kalamazoo River, and creation of an endowment to assure continued maintenance at these sites (US\$10 million).

* For the purposes of Enbridge's *2015 CSR & Sustainability Report*, "significant" means an amount in excess of \$50,000 when referring to the amount of any fine or penalty imposed by a law enforcement or regulatory authority. In addition, any incident that resulted in bodily harm and/or injury (or had the potential to do so) is also deemed to be significant. Unless otherwise noted, significant fines, penalties or non-monetary sanctions reported in this section include fines or penalties that were paid and recorded in Enbridge's records for the 2015 financial year, as well as any fines or penalties paid in 2016 prior to the completion of Enbridge's *2015 CSR & Sustainability Report*.

SUSTAINABLE SUPPLY CHAIN & PROCUREMENT

OVERVIEW

Connecting people to the energy they need for their quality of life—and doing so safely and reliably—is our primary social responsibility. We recognize that our supply chain plays a key role in our ability to live up to that responsibility. This is why we are focused on building strong relationships with our suppliers and ensuring they are fully aligned with our commitment to the highest standards in safety, environmental protection, community engagement and governance.

MANAGEMENT APPROACH

Enbridge's Supply Chain

We work with hundreds of suppliers across North America, many of them major companies. Our suppliers cover a wide range of disciplines, including manufacturing, construction, engineering, distribution and consulting, but the majority of our annual spend is in the areas of pipe manufacturing, construction, maintaining the fitness of our systems and leak detection.

In 2015, our Supply Chain Management (SCM) teams managed the acquisition of approximately \$10 billion in goods and services with approximately 20,000 suppliers serving our liquids pipelines, gas distribution, gas transportation and renewable energy businesses in Canada, the U.S. and internationally.

The following diagram illustrates our supply chain:

Enbridge's Supply Chain



DESIGN

PLAN ROUTES/SITES

- Obtain professional services
- Obtain land access



BUILD

PIPELINES FACILITIES RENEWABLES

- Obtain Materials and Equipment
- Obtain Services
- Build
- Test

- Manufacturing
- Raw Material Extraction

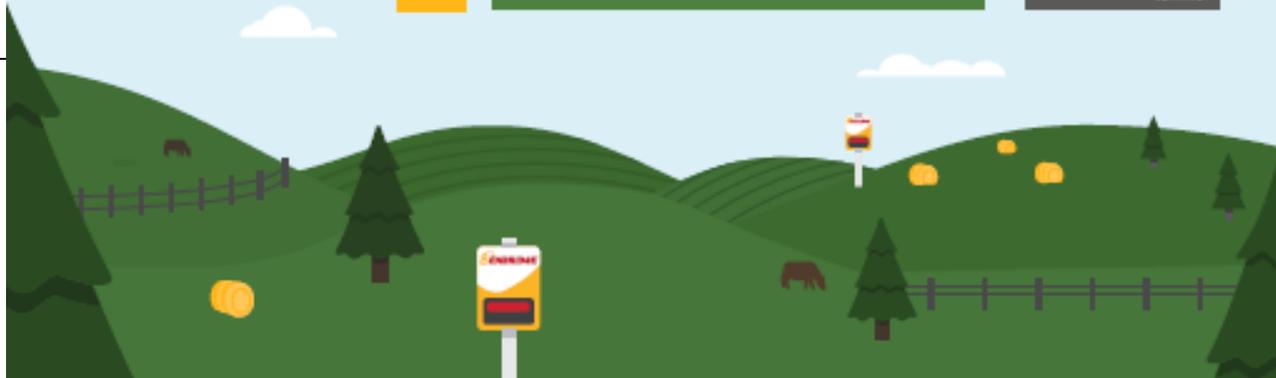


OPERATE

GAS DISTRIBUTION		FACILITIES	
TRANSPORTATION		RENEWABLES	
Transport oil/gas using pipeline	Storage of oil and gas	Service to end user	Generate wind, solar & geothermal electricity
Transport oil/gas using rail/trucks	Gas processing	Transport gas to end user	Transport electricity to the grid

- Acquire Assets
- Oil and Gas Extraction
- Consumer Use
- Industrial Use
- Refining
- Retail pumps
- Consumer Use

- Monitor + Inspect
- Maintain + Upgrade
- Decommission



SCM Management Structure

Our Gas Distribution (GD), Gas Pipelines, Processing & Energy Services (GPP&ES), and Corporate business segments each have groups that oversee their respective SCM functions. Our Liquids Pipelines business segment (LP) and Major Projects business unit (MP) have a combined group that oversees their SCM function.

Each group governs all aspects of SCM within its business segment—from tactical procurement and materials management, to strategic sourcing and contract management—in order to create maximum value for Enbridge and our stakeholders and to help us deliver the energy that people need.

The LP/MP SCM group also has a new dedicated SCM Sustainability team within it, with a primary function of further integrating environmental, social and governance (ESG) considerations and principles into supply chain decision-making within LP/MP, thereby enhancing our CSR and sustainability performance. This team is focused on ensuring meaningful local and Indigenous economic participation in our operations and projects.

Senior leaders from each of our SCM groups comprise an Enterprise Supply Chain Council, which ensures that our SCM goals and governing policies, processes and practices are as consistent and aligned as possible throughout the company. The Council also addresses emerging SCM issues and challenges and facilitates the pursuit of continuous SCM improvements.

SCM Governance

Enbridge's Values

All of our business segments incorporate our core values—Safety, Integrity and Respect—into their SCM policies, procedures and practices. These values represent a constant guide by which we make our decisions as a company, and as individual employees, every day.

Policies

We incorporate Enbridge's Statement on Business Conduct into our SCM policies, procedures and practices throughout the company.

An enterprise-wide SCM Policy also governs our acquisition activities for all goods and services. It mandates that SCM activities are to be conducted in an ethical manner that delivers the best overall value for Enbridge while ensuring adherence to our core values. It also states that the SCM function is accountable for managing the risks associated with the acquisition of third-party materials and services.

In addition, our LP/MP and GD SCM groups are governed by a comprehensive SCM Protocol that sets out guidelines and standards for establishing the effective SCM controls that are essential to mitigating Enbridge's risks and conducting activities in a manner that meets acceptable industry standards. The protocol requires that all SCM activities must adhere to Enbridge's Statement on Business Conduct and Compliance Policy. Our SCM groups track and measure compliance to the Protocol through annual assessments.

Our SCM groups also follow several other established company policies and guidelines that define the way we relate with our stakeholders and the communities in which we operate, including:

- Corporate Social Responsibility Policy,
- LP/MP Safety Manual, and
- Aboriginal and Native American Policy.

Compliance with our policies is a condition of both conducting business with and on behalf of Enbridge.

Mitigating Supply Chain Risks

We identify supply chain risks as part of our risk management process, which involves the participation of a cross-functional team of experts.

To manage sustainability risks amongst our suppliers, we address multiple business factors that relate to sustainability, including:

- environmental standards for suppliers' processes, products or services,
- fundamental human rights (e.g. freedom of association, promoting an inclusive and respectful workplace),
- occupational health and safety,
- business ethics (e.g. corruption, anti-competitive practices),
- quality of management systems,
- environmental management system certified to ISO 14001, the Eco-Management and Audit Scheme (EMAS) or equivalent management system with external independent audits, and
- guidance regarding sub-contracting (i.e. requiring to replicate own standards down the supply chain).

Integrating ESG Factors to Improve SCM's Sustainability Performance

Our goal is to acquire goods and services in an ethical manner. We integrate environmental, social and governance factors into our supplier selection and relationship management through a variety of means, including:

- a supplier selection process that incorporates a range of sustainability metrics and that includes a supplier pre-qualification process that weighs heavily on safety,
- use of a restricted-party screening tool that provides visibility into companies that we want to contract with and ensures no business is conducted with any company that is blacklisted as a result of a breach in conduct or international policy,
- a robust and growing focus on Supplier Relationship Management via supplier forums and joint Enbridge-supplier steering committees,
- supplier performance scorecards that include a range of sustainability metrics relevant to each specific business segment, such as safety, environment, quality and engagement of local and Aboriginal businesses,
- supplier audits,
- pipeline construction safety roundtables, and
- collaborative initiatives with our own in-house CSR and sustainability specialists and with suppliers, NGOs and other companies on supply chain issues.

Pre-qualification

Our business segments use [ISNetworld](#) (ISN), a global resource for connecting corporations with safe, reliable contractors and suppliers, as a safety pre-qualification standard for service-providing suppliers.

In addition, we have formed a Pre-Qualification Committee that consists of leaders representing SCM, LP and MP Engineering, Operations, Control Systems and MP Quality. This committee provides an important forum for obtaining input into supplier pre-qualification and disqualification processes, and for sharing emerging issues. It also helps ensure that our standards regarding safety, quality, human rights and environmental practices are upheld throughout our supply chain.

Restricted-Party Screening

We utilize a world-leading organization that specializes in global trade management solutions to prescreen and monitor the suppliers with whom we are either doing or intend to do business to ensure that we do not inadvertently contract with suppliers (parent companies and/or their subsidiaries/affiliates) who have been barred due to any breaches in relevant standards and compliance regulations, globally.

This process involves a range of cross-functional departments—SCM, Law, Internal Audit, Compliance, Risk, Quality and Safety—and has proved invaluable, enabling us to disqualify some suppliers and raise awareness about supplier restrictions throughout Enbridge.

Supplier Performance Management

Our SCM groups hold regular formal meetings with key suppliers to ensure that existing agreements and supplier performance are reviewed, tracked and updated.

We also have a wide range of programs and initiatives in place to help ensure our suppliers deliver top performance, including:

Supplier Relationship Management – MP has created formal governance structures with key suppliers under a Supplier Relationship Management (SRM) program so that their performance can be tracked and improved, and so that MP can better manage its supplier relationships. By 2015, approximately two-thirds of MP's spend was under active SRM.

LP has also established an SRM program that focuses on strategic suppliers whose role is critical to our success. Through their SRM program, LP engages with internal and external stakeholders regarding strategic categories of goods and services and their suppliers. Also, through ongoing communication, LP has analyzed its suppliers' concerns and developed ways to collaboratively improve relationships, safety, community awareness and public engagement. LP's communication efforts include providing suppliers opportunities to engage with our executive management. By 2015, approximately one-quarter of LP's spend was under active SRM.

GPP&ES has a long-standing Strategic Alliance program that is designed to reduce costs and mitigate financial, operational, and legal risks with key suppliers. GPP&ES implements the program through a variety of means, including: communicating expectations, opportunities and issues; measuring service; monitoring safety; and annual review meetings. GPP&ES currently has six Strategic Alliance partners that are focused on compression services, compressor valves, and lubricants and chemicals.

GD maintains strong relationships with its supplier community by maintaining open lines of communication at all levels of the organization with respect to both ongoing business relationships and CSR initiatives. Independent of the formal process for supplier scorecards, qualifications and audits, this communication includes GD executives engaging with the supplier community regarding United Way, the Enbridge Ride to Conquer Cancer, and multiple community-based fundraising initiatives, including hospitals and shelters.

Scorecards – Some of our supplier contracts incorporate scorecards focused on financial and non-financial criteria. For example, LP/MP employ Master Service Agreements (MSAs) that incorporate scorecards that track safety,

quality, corporate responsibility, Aboriginal engagement, financial, environmental and customer service performance metrics.

Similarly, GD uses Extended Alliance contracts to govern its relationships with its three largest suppliers, a customer services firm and two large pipeline construction companies. These contracts include scorecards for safety, quality, customer care and delivery-related objectives. GD gives each objective a weighting and a target score and then scores each supplier against the objectives. The supplier's actual score becomes a variable that determines the rate at which GD pays the supplier. In areas where the supplier does not meet objectives, GD meets with the supplier to discuss appropriate corrective actions. Suppliers with Extended Alliance contracts must also meet regularly with GD, undergo various types of audits (quality assurance audits, for example) and meet the requirements of GD's stringent quality assurance program.

Audits – We have a Vendor Audit Program whose objectives are to: identify supplier overbillings; detect non-compliance in areas pertaining to health and safety, track CSR and sustainability performance; recognize potential process improvements for Enbridge; and strengthen supplier awareness of Enbridge's compliance expectations. Since this program's inception in 2013 through to the end of 2015, LP/MP had completed—or was in the process of completing—audits of 23 suppliers that accounted for a total spend-under-audit of \$2.9 billion. As part of this program, LP/MP is implementing improvement plans to remediate the gaps and risks identified to date.

Through ISNetworld, GPP&ES is a member of the Facility Audit Network (FAN) through which five pipeline companies agree to perform standardized audits of contractors and share the results with the other members.

Suppliers to GD who have Extended Alliance contracts must also undergo various types of audits—such as quality assurance (QA) audits, for example—and meet the requirements of GD's stringent QA program, which includes qualified QA auditors performing independent audits on various areas of contractors' work activities (including construction, maintenance and utility locates). Checklists are utilized to identify areas of non-compliance with policy, procedures and applicable codes. "Critical" or "high" non-conformance automatically triggers an "Area of Focus" for GD's Quality Control team, which investigates root causes and develops corrective action in collaboration with all interested parties.

GD also audits its large materials suppliers. These audits cover the whole manufacturing process—from raw material receipt to the final finished product—and encompass all functions that impact whether the manufactured products will meet GD's specifications and requirements. These functions include health, safety, the environment, personnel training and facilities. The GD audit team reviews the manufacturers' safety procedures and their environment, health and safety programs to ensure safety is the top priority. Audit criteria include: where the manufacturers acquire their raw materials; how they store raw materials; environmental considerations, such as how they handle their waste products and fresh water supply; recycling programs; health and safety programs for employees; personnel training; emergency procedures; and workplace safety (hazards, ergonomics, noise, air quality).

Contractor Safety Incentive Program – Because safety is one of our core values, we are responsible for ensuring that it is extended to our suppliers of services and materials. Accordingly, MP has implemented a Contractor Safety Incentive Program for its major construction contractors, and our other business segments are following suit. The program includes a range of initiatives—from contractual safety mechanisms for large contractors that align their performance with our safety expectations via incentives and penalties; to incentives for incident-free performance on work sites (which could involve teams earning financial credits they could use for scholarships that they would award to eligible students).

Safety Roundtables – To ensure that our safety value is extended to our suppliers, we involve them in industry-organized safety roundtables.

The principal safety roundtable in which we participate is the Pipeline Construction Safety Roundtable (PCSR), which helps to raise the caliber of safety performance among pipeline owners and Mainline construction contractors. We led the establishment of this roundtable because we understand that many of the major contractors we hire are also being hired by other North American companies. By inviting all of the parties to join the conversation on how best to organize practices, training, equipment safety and leadership competency, we can help turn good practices into industry standards. *For more information, please see the Sustainable Supply Chain & Procurement section of this report.*

Project Construction

We currently have \$26 billion in capital growth projects that are commercially secured and in execution. While GHG emissions associated with project construction are small compared to the overall lifetime impacts of operations, MP implements several measures aimed at increasing the efficiency of project teams during construction, including using locally sourced pipe whenever possible and local accommodations and trades services.

Labor Practices

We integrate labor factors into our SCM via our Statement on Business Conduct, which emphasizes our commitment to the specific standards of conduct that we expect of our directors, officers, employees, consultants and contractors in all of the countries where we do business.

We expect our suppliers to comply with our Statement on Business Conduct as part of their business dealings with us.

Human Rights

As part of their business dealings with us, we expect our suppliers to comply with the Statement on Business Conduct, which contains provisions that we respect human rights.

Additionally, all of our business segments have adopted policies that establish the rights of all employees and contractors to enjoy a workplace free of harassment and discrimination.

The provisions we set down in our Statement on Business Conduct are generally accepted international standards and principles, including those that make up the United Nations Global Compact (UNGC).

The UNGC, to which we became a signatory in 2003, brings companies together with UN agencies, labor and civil society to support principles in the areas of human rights, labor, and the environment. As a signatory, we are committed to supporting and advancing the UNGC's principles and to making them part of our strategy, culture and daily operations. *For more information, please see the Business Conduct & Ethics section of this report.*

Child Labor

As a UNGC signatory, we are committed to Principle #5—the effective abolition of child labor. Compliance with this principle is a condition of both conducting business with and on behalf of Enbridge.

Forced and Compulsory Labor

We are also committed to UNGC Principle #4—the elimination of all forms of forced and compulsory labor. Compliance with this principle is a condition of both conducting business with and on behalf of Enbridge.

STRATEGIC PRIORITIES

- **Continuously collaborate with our suppliers and sub-suppliers to support our number one priority of safety and operational reliability.**
- **Focus on project management and strategic contracting to support the execution of our \$26-billion commercially secured growth capital program.**
- **Drive value and minimize complexities and uncertainties through a more centralized LP/MP SCM function, which in turn will strengthen our core business and help secure our longer-term future.**
- **Help maintain Enbridge's social license to operate by further integrating CSR considerations into the way we purchase goods and services through our new SCM Sustainability function.**
- **Continue developing a comprehensive and consistent set of policies, processes and practices to govern supply chain management across the company.**

2015 PERFORMANCE

KEY FACTS

In 2015, our Supply Chain Management groups managed the acquisition of **approximately \$10 billion in goods and services** from approximately 20,000 suppliers.

Our Major Projects business unit purchased approximately 220,508 tonnes of steel pipe, approximately **96 percent of which was made from recycled steel.**

Our combined Liquids Pipelines and Major Projects Supply Chain Management group has a **dedicated SCM Sustainability team** within it, with a primary function of integrating environmental, social and governance (ESG) considerations and principles into supply chain decision-making.

The contractors that work for MP work more than **75 percent of all the hours worked throughout our company.**

Continuously Collaborate with our Suppliers in Support of Safety and Operational Reliability

Contractor Safety Management

Because contractors working for LP/MP work more than 75 percent of all the hours worked throughout the company, contractor safety management is a critical success factor in our overall strategy of safely and reliably constructing, operating and maintaining our pipeline network.

Collaborating to Improve Contractor Safety - To further our goal of having an industry-leading health and safety program, we merged the separate LP and MP Safety departments into one LP/MP Safety Shared Services team in 2014 such that LP/MP representatives could work collaboratively to review and align our safety policy, standards, processes and safe work practices. Their work resulted in two governing documents: the *LP/MP Safety Manual*, which we implemented in early 2015; and the *Occupational Health and Safety Management System (OHSMS)*. As of

January 2015, both LP and MP require that contractors meet consistent safety requirements outlined in these two documents.

Evaluating Contractors - Since 2014, our business segments have been working together to establish alignment, transparency and consistency across the company with regard to how we evaluate contractor safety performance as part of our contractor pre-qualification process.

During Phase 1 of this work, a joint Contractor Safety Committee reviewed each business segment's subscription to ISNetworld (ISN), a global resource that we use to qualify contractors. The committee also reviewed each business segment's contractor grading scorecard. As a result of this work, in 2015 we implemented enterprise-wide minimum contractor safety pre-qualification criteria and a grading standard for evaluating contractors using ISN. We expect that this enterprise-wide approach will strengthen our ability to consistently select contractors that pro-actively manage their safety system performance in a way that is consistent with and that supports our Health and Safety Principles.

For 2016, we will develop objectives that will help us continually improve the processes, systems and controls that we use to ensure a safe contractor work environment.

Assessing and Tracking Subcontractor Safety Performance - LP/MP established a joint Contractor Safety Management Network (CSMN) in 2013 to foster innovation and continuous improvement of the processes, systems, and controls that Enbridge uses to keep contractors and the facilities that they work in safe, while helping to build strong contractor safety management competencies.

In 2015, CSMN members turned their attention to improving subcontractor management. They initiated a pilot project involving a subcontractor checklist that they would incorporate into the RFx (Requests for Information, Proposal, Quote and Bid) to better assess the safety performance capabilities of subcontractors working on our projects. In addition, CSMN members have been working with the LP/MP Safety Shared Services team to amend contractor scorecards so they can clearly see how many hours our subcontractors are working. This will allow us to better understand our subcontractors' safety performance in terms of incident frequency, and it will allow us to better evaluate overall subcontractor performance and be more strategic in how we apply our resources to affect the best possible safety outcome.

Improving Contractor Prequalification – As part of another 2015 project, CSMN members evaluated Enbridge's current contractor safety prequalification process to identify areas for improvement. Their goal was to achieve a single safety-approved contractors list for Enbridge. The team worked closely with our SCM groups in Canada and the U.S. to ensure that these processes are integrated and that they capture both our SCM and safety management systems.

Focus on Project Management and Strategic Contracting

Supplier Performance Management

On-line Bidding Tool - In 2015, we implemented an on-line eBidding tool to improve the efficiencies of our contracting process. The tool provides multiple benefits, not only to Enbridge, but for our suppliers. In addition to improving efficiency and transparency, its use results in clearer communication with our suppliers, improved security and ease of access, and greater consistency throughout the bidding process.

Follow-up to Supplier Forums – In both 2013 and 2014, LP/MP held one-day, interactive supplier forums with the goal of building and renewing sustainable relationships with our suppliers. The forums provided an opportunity for our suppliers to meet members of our executive and SCM leaders, and for us to hear and address the suppliers' collective concerns.

In 2015, we focused our efforts on addressing outcomes from our 2013 and 2014 forums. For example, we established several Supplier Relationship Management steering committees at an executive level between Enbridge representatives and our major contractors and suppliers to discuss everything from the health of our relationships, to key performance indicators, to targets and opportunities for improvement.

In 2016, we intend to find ways to engage our suppliers sooner in our efforts to involve local and Aboriginal businesses in our projects. At past forums, suppliers have brought up their desire to be engaged in this area earlier, and we believe that finding ways to do so will benefit all concerned.

Pipeline Construction Safety Roundtable - Over the past three years, Enbridge has been a driving force behind contractor safety performance improvement in the pipeline industry by leading the establishment of the Pipeline Construction Safety Roundtable (PCSR) in Canada and the U.S. Four PCSRs were held during 2015—two in Canada and two in the U.S.

Starting in 2015, the Canadian Energy Pipeline Association (CEPA) accepted the task of hosting the PCSRs in Canada to ensure that all CEPA member companies receive the benefits. The PCSRs are now being organized by the CEPA Foundation, whose members include engineering, design, construction, manufacturing, pipeline maintenance, legal, land and environmental service companies—key suppliers who play a crucial role in our shared goal of zero incidents.

In 2015, the CEPA Foundation held two PCSRs in Calgary, Alberta, with over 40 participating companies, to discuss the development of a common set of standards for personal protective equipment, overhead power-line hit prevention and light-vehicle safety requirements. The CEPA Foundation also initiated a workshop series to facilitate in-depth discussion, information sharing and collaboration regarding pipeline construction.

Real Estate Construction Safety Manual - In 2015, we rolled out a Real Estate Construction Safety Manual that establishes safety standards and expectations that are specific to real estate construction projects.

Drive Value through a Centralized LP/MP SCM Function

Given the size of the MP SCM group function, in 2015, we merged it with our LP SCM group such that the two groups could gain greater consistencies and efficiencies. As noted earlier in this section, the newly merged LP/MP SCM group now has a dedicated Sustainability team within it to ensure that environmental, social and governance (ESG) considerations and principles are incorporated into decision making.

Help maintain Enbridge's Social License to Operate by Integrating CSR Considerations into SCM

Responsible Procurement

The most significant purchase we make is steel pipe. In 2015 MP purchased approximately 220,508 tonnes of steel pipe, approximately 96 percent of which was made from recycled steel. In 2015, GD purchased approximately 1,243 tonnes of steel pipe, approximately 63.8 percent of which comprised steel that had recycled content. GD also purchased approximately 926 tonnes of polyethylene pipe, none of which included recycled content.

GD has the largest fleet of natural gas vehicles in Canada, and has converted 648 of its 853 fleet vehicles to run on natural gas. Every RFP it issues to vehicle manufacturers requires the supplier to provide vehicles that are either NGV ready or that have a component for conversion to NGV.

The majority of its vehicles are dual-fuel (they run on natural gas and gasoline). Some are medium-duty trucks, which are normally diesel-fueled, which have also been converted to run only on natural gas. Through this initiative alone,

GD has reduced its GHG emissions by more than 400 tonnes of carbon dioxide equivalent per year, compared to levels it would be emitting if it were operating gasoline or diesel-fueled vehicles.

Sustainable Supply Chain Initiative

In 2014—approximately a year before we added a dedicated Sustainability team to the LP/MP SCM group—we took an innovative step to integrate ESG considerations and principles into supply chain decision-making within MP by deploying one of our sustainability professionals to work directly with and support the LP/MP SCM group. As a first step, the sustainability professional worked with the LP/MP SCM group to map out LP/MP's supply and value chains, research SCM best practices as they relate to sustainability, and review internal policies and practices.

In 2015, we then broadened the initiative to include other Enbridge business segments and created the Sustainability team to support Enbridge's CSR and Aboriginal economic engagement initiatives in Canada and the U.S. We also began developing a new framework to provide suppliers with guidance on our sustainability expectations. *For more information, please see Enbridge Supplier Sustainability Expectations in this section of the report.*

Advancing Sustainable Practices

Enbridge and EVRAZ—the biggest manufacturer of large diameter steel pipe in North America and one of our largest suppliers—are working together to advance sustainable practices.

Through our long-standing partnership, which is based on a shared commitment to pipeline safety and operational reliability, the two companies are jointly addressing product quality, safety and the environment, R&D, and contributions to the community. For example, while collaborating to ensure quality pipe, we have also looked for ways to decrease the environmental impacts associated with producing pipe. One outcome of our collaboration is that EVRAZ pipe contains an estimated 96 percent of recycled steel.

While producing quality pipe remains at the heart of the relationship, the Enbridge-EVRAZ partnership also generates other benefits. Among the other benefits, EVRAZ offers jobs and apprenticeship programs for skilled trades, funds a scholarship program for Aboriginal students and a literacy program for children, and invests in local environmental initiatives, including protection of native grasslands at the Old Man on His Back Prairie and Heritage Conservation Area in southern Saskatchewan. EVRAZ was also the 2015 presenting sponsor for the Enbridge Ride to Conquer Cancer benefitting the Alberta Cancer Foundation. *For more information, please visit EVRAZ and Enbridge: Proud partners in a Saskatchewan success story on enbridge.com.*

Providing Aboriginal Training and Employment Opportunities

We strive to create opportunities that are aligned with the aspirations of the Aboriginal or Native American communities affected by our business. These opportunities often come in the form of partnerships and sponsorships of educational and training programs, employment opportunity initiatives, and other capacity-building efforts.

Line 3 Replacement Project – Our \$7.5-billion Line 3 Replacement program (L3RP) is the largest project in our history. It involves replacing the majority of the existing Line 3—which is one of our primary Mainline pipelines, and which runs from Hardisty, Alberta, to Superior, Wisconsin—with new pipe.

As part of our commitment to provide training and employment to members of Aboriginal communities in Canada, in November 2015 we launched in Saskatchewan the L3RP Training-to-Employment program, which is designed to connect Aboriginal workers with future employment in the pipeline industry and related sectors. *For more information, please see the Aboriginal & Native American Rights & Engagement section of this report.*

Also in late 2015, we issued a guidance document for contractors working on L3RP. The document outlines contractors' socio-economic responsibilities on the project and encourages them to maximize participation of Aboriginal peoples in their L3RP work, including through partnerships, joint ventures or other business arrangements with Aboriginal businesses, and through providing training, mentoring and employment opportunities. Going forward, we intend to apply the guidance in this document to all of our LP/MP projects in Canada and the U.S.

Aboriginal Training-to-Employment Program in partnership with Portage College – In 2015, we sponsored a pilot Aboriginal Training-to-Employment program in partnership with Portage College in Alberta. Sixteen community members from six Aboriginal communities successfully completed the program, which will enable them to begin work on an Enbridge growth project or other industry project.

Continue Developing Consistent SCM Policies, Processes and Practices

Enbridge Supplier Sustainability Expectations

We are committed to upholding the highest ethical and legal standards as we conduct our business, and expect all registered suppliers, manufacturers, contractors and subcontractors with whom we conduct business to understand and share our commitment.

To this end, and to ensure that our suppliers are aligned with our commitment to environmental, social and governance (ESG) considerations and principles, in early 2015 we began developing a framework that will guide our suppliers regarding the ethical standards and business conduct we expect of them.

Our new framework addresses environmental stewardship and protection, human health and safety, social and economic development, indigenous engagement, employment practices and business integrity. We expect to implement it in early 2016, and see this as being an important step in our journey to build strong relationships with our suppliers and bolster our sustainability performance.

By introducing the framework and communicating it to our suppliers, we will have the opportunity to influence supplier performance by sending the message that ESG factors are important to us, and that we take them into account when selecting and building our relationship with suppliers. By introducing the framework, we will also have the opportunity to enlist the support of our supply chain partners to address ESG issues and opportunities. And, our introduction of the framework will give our suppliers the opportunity to strengthen their relationship with us while building their own sustainability performance.

Corporate SCM

In 2015, we established an SCM department in our corporate office whose mandate is to manage indirect and Corporate spend, set targets and measure progress, ensure sustainability of value improvements, and improve Enbridge's brand through effective management of Enbridge's indirect supply chain. One aspect of the department's strategy is to increase the maturity of the company's SCM discipline, which includes ensuring that suppliers of indirect goods and services are fully aligned with Enbridge's core values and policies.

R&D AND INNOVATION: PIPELINE TECHNOLOGIES AND EMERGING TECHNOLOGIES

OVERVIEW

Every year we invest significantly in R&D and innovative technologies that improve the fitness of our systems, our leak detection abilities and our damage prevention capabilities. We also invest in emerging technologies—such as clean power and energy storage—that have the potential to support future business growth.

MANAGEMENT APPROACH

While innovation activities take place throughout our entire company, in this report we provide an overview of our work in the areas of system integrity, leak detection and damage prevention, which takes place primarily in our Liquids Pipelines (LP), Gas Distribution (GD) and Gas Pipelines, Processing & Energy Services (GPP&ES) business segments.

We also provide an overview of investments through our Green Power Transmission & Emerging Technology (GPT&ET) group. These include our company's interests in renewable and alternative energy and large-scale electricity storage.

All R&D-related departments within Enbridge look for opportunities to share best practices and learnings from projects. Senior leaders from the departments, for example, meet monthly to provide project updates and discuss potential applications in our organization. In addition, our company leads and participates in collaborative R&D projects with other companies and through industry associations.

R&D and Innovation Related to System Integrity, Leak Detection and Damage Prevention

Liquids Pipelines

LP is involved in researching, testing and assessing the best new system integrity, leak detection, damage prevention and operations technologies through the following three groups:

- **Research, Development and Innovation** – A centralized R&D group with a broad mandate to research, develop and test novel pipeline technologies and solutions. The group focuses on all aspects of pipeline operations including design, construction, operation, maintenance and abandonment.
- **Integrity Solutions, Pipeline Integrity** – A team focused on finding technological solutions and methods to mitigate key threats to the integrity of Enbridge's liquids pipelines systems.
- **Leak Detection Testing and Research** – A team responsible for researching and testing commercially available leak detection technologies that complement or enhance current capabilities.

Together these groups support the development of real-time leak detection technologies; advanced pipeline monitoring systems; and new tools to prevent, monitor or mitigate corrosion, cracks and deformation. The projects are wide ranging and include:

- in-line inspection tools,
- defect assessment,
- corrosion prevention and mitigation,

- geohazard management,
- improvements to facilities integrity,
- infrared cameras for leak detection and site security,
- fiber-optic technologies for leak detection and pipeline integrity,
- aerial-based leak detection technologies,
- hydrocarbon leak detection point sensors,
- oil-on-water detection sensors, and
- pipeline welding and coatings.

Gas Distribution

GD invests in technology development to improve its system integrity, leak detection and damage prevention capabilities. GD's investment program is primarily managed through its Distribution Technology department, which works in partnership with vendors and industry consortiums to develop new technologies, conduct in-house field trial investigations and evaluate emerging technologies. The department also works with internal groups to implement new technologies that improve GD's operations.

Starting in 2016, Distribution Technology plans to add a focus on potential growth opportunities for the gas distribution business, and emission tracking technologies to prepare for future regulatory changes in Canada.

Gas Pipelines, Processing & Energy Services

GPP&ES invests in the development of advanced pipeline integrity and leak detection technologies through various operating departments, including System Integrity, Engineering, Control Room and SCADA (Supervisory Control and Data Acquisition).

R&D and Innovation Related to Green Power and Emerging Technology

Previously, Enbridge's Emerging Technology Group was responsible for identifying and investing in pre-commercial technologies strategically aligned with the company's business interests. In 2015, as a result of reorganization, the Green Power and Transmission group was merged with the Emerging Technology group to form the Green Power, Transmission and Emerging Technology (GPT&ET) group and maintain responsibility for the portfolio of investments.

Through GPT&ET, Enbridge continues to be one of a select number of energy companies that invests in innovative pre-commercial technologies. GPT&ET searches for new technologies that could augment and diversify our green power business. Two of Enbridge's early innovative investments—in wind and solar energy—have already moved past the incubation stage to the point where they have become meaningful and profitable business lines for Enbridge. Other investments, in geothermal and low-head hydropower, have resulted in operational power generating projects in Oregon and Ontario. In 2015, GPT&ET made follow-on investments totaling \$3.9 million in technologies in its portfolio.

The group also invests in technology development programs to support its green power projects. During the year, it spent \$1.1 million on pilot programs to improve the operational reliability of its wind turbine operations.

STRATEGIC PRIORITY

- **Continue investing in R&D and pipeline technologies that improve our system integrity; enhance our leak detection, damage prevention and life cycle aspects of operations; and help to grow, complement and diversify our business.**

2015 PERFORMANCE

KEY FACTS

In 2015, Enbridge's R&D and innovation-focused business segments and groups invested about **\$12.2 million in sustainability-related technology development and innovation projects.**

Through our Green Power Transmission & Emerging Technology (GPT&ET) group, we managed a portfolio of **investments in 15 innovative pre-commercial technologies.**

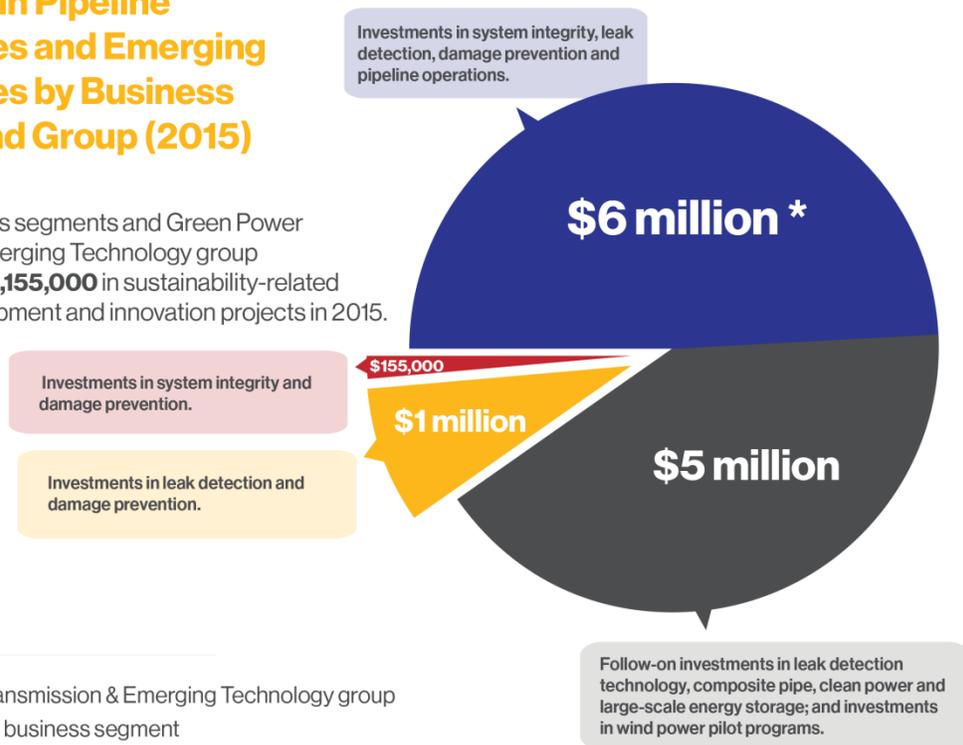
In 2015, our Liquids Pipelines, Gas Distribution and Gas Pipelines, Processing & Energy Services business segments led, participated in or sponsored **more than 81 R&D projects.**

Enbridge's 2015 Investments in Pipeline Technologies and Emerging Technologies

Enbridge's business segments and the Green Power, Transmission & Emerging Technology group invested \$12.2 million in sustainability-related technology development and innovation projects in 2015. The graph below shows how that amount breaks down within Enbridge, and which investment areas to which it was allocated.

Investment in Pipeline Technologies and Emerging Technologies by Business Segment and Group (2015)

Enbridge's business segments and Green Power Transmission & Emerging Technology group invested about **\$12,155,000** in sustainability-related technology development and innovation projects in 2015.



- Green Power, Transmission & Emerging Technology group
- Liquids Pipelines business segment
- Gas Distribution business segment
- Gas Pipelines, Processing & Energy Services business segment

* Includes LP's contribution of \$272,500 to Pipeline Research Council International's R&D portfolio.

Investments in System Integrity, Leak Detection, Damage Prevention and Pipeline Operations

Electromagnetic Acoustic Transducer

Electromagnetic acoustic transducer (EMAT) is an emerging ultrasonic testing technique that operators can use to measure pipe thickness and detect cracks. In the past, EMAT was used primarily for gas pipelines, and is now being tested for use in liquids pipelines. LP is continuing to evaluate the use of EMAT during in-line inspection runs to detect pipeline cracking, including crack-like dents caused by mechanical damage.

Magnetic Tomography

As part of our commitment to adapting and harnessing innovation in the name of safety, LP is examining the magnetic tomography method (MTM) for potential application at our pipelines facilities. An MTM inspection uses the electromagnetic properties of steel to create a remote 3-D image of a pipe, identifying the location of potential stress concentrations and associated pipeline features, which may require further examination. Technicians can walk directly above a pipeline's path to scan it—without exposing or shutting it down—from above ground using MTM technology. The technicians carry handheld MTM devices, which record magnetic field changes caused by the pipe's features. They then download and analyze field data, which they use to identify external or internal corrosion, cracks or dents, metal loss, welding defects, or strain on pipe caused by ground instability. In 2015, LP used the technology

to inspect 95 sections of pipe within six stations in Canada—most of it underground, and measuring 13 kilometers (eight miles) in total.

Bracelet Probe

Since 2013, LP has tested the use of a bracelet probe, an electromagnetic induction technique that can provide comprehensive inspections for corrosion under insulation. It can penetrate insulation up to 75 millimeters (three inches) thick, and provides highly accurate results for corrosion location and condition assessment. In 2013 and 2014, LP conducted its own validation of the technology, inspecting pipes at Enbridge facilities in Edmonton, northern Alberta, Regina and Superior, Wisconsin. The business segment found the technology to be accurate, thorough and practical to use, since it can monitor facility piping that otherwise would have to have all of its insulation removed for a thorough inspection. LP is now working to implement and adopt the probe as a proven method for inspecting corrosion under insulation on facility piping across our liquids pipeline network.

Geotextile Pipe Coating

While our pipelines are engineered to manage moving forces where necessary, LP has led a geohazard project to tackle the issue of incremental slope movement through the use of geotextile pipe coating. Since 2012, LP has used geotextile wrap on several pipeline construction projects in our network where our engineers anticipate potential for slope movement. When our carbon-steel pipe is wrapped with two layers of geotextile fabric—an interior layer of lagging, and an exterior sheath—those two layers glide against each other and reduce the friction factor from the soil's contact with the pipe.

Advanced Underwater Sensing

In 2013, LP acquired an Autonomous Underwater Vehicle (AUV) equipped with advanced sonar technology and, in partnership with Michigan Technological University, has been testing it to support LP's pipeline integrity management program. During these tests, the AUV has been collecting side-scan sonar images to map the bottom of the Straits of Mackinac near our Line 5 crossing in northern Michigan. LP's goal has been to provide a "visual" sonar image of our pipelines and to better understand how they interact with the surrounding bottom substrate on a year-over-year basis. The AUV will provide useful data regarding changes to the topography near and around the pipeline, and this information will help inform LP's integrity management program for Line 5.

Environmental Monitoring Buoy

In 2015, LP began sponsoring deployment of an environmental real-time monitoring buoy in the Straits of Mackinac near Line 5. In August, Michigan Technological University's Great Lakes Research Center deployed the buoy and began streaming data from the buoy to a publicly accessible website. Equipped with a hydroacoustic current meter, the buoy reports information on the constantly changing currents in the Straits. The buoy also measures conditions like wind direction and speed, water temperature, and wave height and direction. The buoy is expected to significantly improve the accuracy of weather forecasting in the Straits and the ability to issue public warnings by U.S. agencies like the National Weather Service.

Joint Industry Partnership Focused on Testing External Leak Detection Technologies

As part of its commitment to improving pipeline safety, Enbridge is collaborating with other pipeline operators to evaluate best-in-class external leak detection technologies. Since 2013, through a Joint Industry Partnership (JIP), Enbridge Pipelines and TransCanada have funded groundbreaking leak detection research, using the External Leak Detection Experimental Research (ELDER) test apparatus in Edmonton. The first tool of its kind in the world, ELDER allows external leak detection technologies to be evaluated in a setting that closely represents the actual conditions where liquids pipelines are installed.

In 2015, Kinder Morgan Canada joined the partnership. Enbridge and TransCanada have each committed \$1.6 million to the ELDER project, while Kinder Morgan has committed \$1 million. The companies and C-FER Technologies, a leading-edge engineering firm, have been performing tests on four external leak detection technologies—vapor-sensing tubes, fiber-optic distributed temperature sensing systems, hydrocarbon-sensing cables and fiber-optic distributed acoustic sensing systems. Data analysis is ongoing, and the ELDER program is expected to continue into 2016.

Aerial-Based Leak Detection

Enbridge Pipelines, TransCanada and Kinder Morgan Canada have also announced a JIP to evaluate aerial-based leak technologies and their possible application on crude oil and hydrocarbon liquids pipelines. Testing and analysis is being carried out by C-FER Technologies. Potential technologies to be tested may include infrared camera-based systems, laser-based spectroscopy systems and flame ionization detection systems, with sensors suitable for mounting on light aircraft or helicopters. Enbridge and C-FER Technologies are currently surveying commercial vendors of these technologies to validate their feasibility for liquid hydrocarbon pipelines. From there, a set of suitable vendors will be determined, with project research and field trials in the Edmonton area to follow in 2016, based on the readiness of the technologies.

Oil-on-Water Leak Detection

Our LP business segment is investigating oil-on-water leak detection sensors, as part of its effort to enhance leak detection and monitoring of waterways near our liquids pipelines and facilities. Since the spring of 2015, LP has been conducting an oil-on-water leak detection pilot project on the creek within our Edmonton Terminal, testing different sensor technologies for potential use with our projects and operations. Each sensor detects oil on water in a different way: one is based on direct contact with hydrocarbons; the second emits low-level microwaves; and the third views the surface of the water from above to detect reflections of light caused by very thin layers of oil on the water's surface. The pilot project will continue through 2016, so LP researchers can monitor data collected by the sensor technologies through all four seasons. If the project is successful, the technology could be used to augment environmental water testing within Enbridge facilities, or to enhance monitoring at unmanned sites or water crossings.

Fiber-Based Cable Deployment

In 2015, LP began piloting a new fiber optic-based external leak detection system on a 32-kilometer (20-mile) stretch of the Flanagan South Pipeline. This system uses distributed temperature and acoustic software algorithms and fiber cable to monitor for potential leaks. Several years in development and construction, the fiber-optic cable system has been installed underground along the pipeline, and we are now monitoring the system's capacity to respond to possible alarm situations.

Fiber-Optic Acoustic Monitoring System

In 2014, Enbridge invested \$4 million in Hifi Engineering. The Calgary-based company has developed a next-generation fiber-optic monitoring system that listens for disturbances along pipelines and can also detect changes in temperature, strain and external pressure. Much more sensitive than previous generation fiber-optic sensors, the monitoring system can locate extremely low rate leaks with precision. To continue development, LP is supporting a project, sponsored by Sustainable Development Technology Canada, to evaluate its potential for deployment inside pipelines.

Tank Leak Detection and Prevention

Since 2012, Enbridge has invested a total of \$2 million in Syscor Controls and Automation, a Canadian developer of wireless sensors used for deployment on storage tanks. Through this investment in Syscor, our company has

furthered its vision of being the safest operator of hydrocarbon facilities. Syscor's wireless sensors provide timely warning of potentially unsafe conditions by detecting discrepancies in operating parameters such as temperature, pressure, tank roof inclination and vapor emissions. In 2015, Syscor completed a pilot project at one of our liquids tank storage facilities in Alberta. LP is now working with Syscor to review project results and investigate enhancements to the sensors.

Liquids Pipeline Leak Detection Cable

LP is working with Syscor Controls and Automation on a project supported by Pipeline Research Council International to develop a leak detection system that is sensitive enough that it can detect very small amounts of hydrocarbon and robust enough that it can be plowed into the ground using well-established cable laying techniques. The objective is to develop a leak detection technology that can be added to existing rights-of-way at a safe distance from the pipeline. The sensor nodes being designed will also be able to house other types of sensors, such as vibration sensors for right-of-way intrusion detection, and will be designed to be easily replaced if damaged.

Video Surveillance with Optical Sensing

In 2013, Enbridge invested \$1.5 million in IntelliView Technologies, a Calgary-based developer of intelligent video solutions for industrial surveillance applications. IntelliView's cutting-edge system uses automated, computerized monitoring and analysis of live feeds from remote video cameras and optical sensors to rapidly detect and report oil leaks or other potential operational incidents. This technology has been installed at a pump station in central Alberta and a pipeline pig trap location on Line 5 in Michigan, and our company continues to monitor its performance at both locations. In 2015, to support further development of this innovative technology, GPT&ET made a follow-on investment of \$750,000 in IntelliView.

Wireless Network to Support Remote Pipeline Monitoring

Since 2013, Enbridge has invested US\$15 million in On-Ramp Wireless, a California-based developer of wireless solutions for energy automation and machine-to-machine (M2M) communications. On-Ramp's technology is the first purpose-built wireless network designed for connecting a large number of remote monitoring devices with very small data requirements. Our company plans to use On-Ramp's wireless platform to support long-range sensor monitoring of our pipelines, helping to drive operational efficiencies and deliver information regarding pipeline integrity. In 2015, GD carried out a pilot project to test the connectivity and performance of the On-Ramp technology within its Greater Toronto Area gas distribution system.

Fiber-Optic Damage Prevention Technologies

For several years, GD has been actively testing fiber-optic damage prevention technologies as a potential solution to protecting vital high pressure gas distribution mains from third-party damages. In 2015, GD continued to evaluate three fiber optic-based threat detection systems. Based on promising results of testing completed in 2014, the detection algorithms were refined, with the goal of reducing nuisance alarms while detecting threats to high pressure distribution mains. A new set of testing was completed in November 2015. Preliminary results from this recent testing indicate a satisfactory reduction in nuisance alarms was achieved and the threat detection was maintained.

Advanced Gas Leak Detection Technologies

GD continues to test different methane detector technologies for leak survey applications. In 2015, for example, the business segment conducted a field test to assess a cavity ring down spectroscopy analyzer, which can be mounted on vehicles and offers a highly sensitive detection method for natural gas leaks. The technology enables GD to analyze gas sample data and to combine the data with GPS and wind information to pinpoint possible leak sources.

This mobile technology has the potential to enhance GD's current leak survey practices in rural areas and mains, providing a safer, faster and more accurate way of conducting leak surveys than walking surveys.

Non-Invasive Testing of Pipe in Ditch

In 2015, GPP&ES participated in a joint investigative project led by DNV GL, a global technical research firm, to determine new methodologies for determining pipe properties in ditch. Researchers are examining the use of available non-invasive testing technologies to assess the properties and strength of steel pipe, where documentation is not available. By using these technologies, our goal is to meet regulated inspection requirements while avoiding the need to remove sections of pipe for laboratory testing.

Automated Ultrasonic Corrosion Mapping System

In the past, inspections of gas plant vessels in GPP&ES have required taking equipment out of service and staff entering confined spaces to inspect and clean equipment. In 2015, GPP&ES introduced a new automated ultrasonic corrosion mapping system that can perform inspections externally without the need to take units out of service. As the tool moves along the exterior of a plant vessel, it uses an ultrasonic signal to identify and measure pitting in the metal surface. The equipment enables the business segment to meet regulatory requirements while avoiding plant shutdowns and improving worker safety. Already GPP&ES has successfully deployed the technology at four gas plants.

Investments in a Cleaner Energy Future

As global demand for energy continues to grow, we know that society wants to see wider use of clean power—and we believe finding lower-impact, lower-carbon energy solutions is in everyone's interests. Our GD business segment is advancing innovative technologies that enable customers to increase the efficient use of natural gas and reduce emissions. Through our GPT&ET group, we are conducting pilot programs to enhance our green power operations. We also hope to add clean power platforms to our portfolio in the years to come, through investments in pre-commercial renewable and alternative energy technologies, large-scale electricity storage, and carbon capture and utilization.

Investments in Energy Efficiency, Gas Savings and Emissions Reduction

GD supports widespread market adoption of new technologies that drive energy efficiency, gas savings and emission reductions while simultaneously reducing end-user costs. These efforts are undertaken in support of GD's demand-side management program. GD participates in these projects as a member of the Canadian Gas Association and the Gas Technology Institute, and is taking an interest in a number of active projects:

- renewable natural gas (biogas) processing, using activated biochar, a charcoal-based filter
- testing of condensing rooftop units (high efficiency gas-fired heating systems)
- demand controls for central hot water systems
- advanced load-monitoring controllers and condensing economizers (heat exchangers) to improve boiler efficiencies

Wind Farm Operations

Enbridge has invested in more than 2,500 MW (gross) of wind power capacity. To improve the operational reliability of our wind power projects, GPT&ET has begun a number of pilot programs:

- As certain contracts with service providers expire, we are developing new monitoring programs that will prepare Enbridge for operational self-performance. In 2015, our engineers and IT professionals began development of

an analytics program to provide real-time monitoring of operating conditions—including wind patterns—at our wind farms in Canada and the U.S.

- At several wind farms in Ontario, anchor bolts have been added to secure wind turbines against earth movement. In 2015, we began a pilot program at our Greenwich wind farm to test the use of strain gauges to provide condition-based monitoring of the bolts. This technology is expected to provide early warning detection of potential operational issues, while simultaneously reducing operations and maintenance costs from time-based inspections.
- We are testing the use of different coatings to protect the edges of fiberglass wind turbine blades against erosion. Currently, to carry out erosion-related repairs, it is necessary to shut down the turbine and repair the eroded section of the blade up tower. If the test program is successful, we expect to increase the operating life of turbine blades and reduce the need for turbine shutdowns.
- GPT&ET engineers are working with Enbridge's Advanced Analytics team to build a predictive model to assess the remaining useful life of wind turbine blades when damages and defects are found. Through this effort, we expect to reduce the number of time-based inspections and strengthen our focus on high-priority blade issues, thereby optimizing inspection and repair costs over the asset's life cycle.

Solar Power Technology

Since 2011, we have invested in next-generation solar technology through a \$9.8-million investment in Morgan Solar, a Canadian start-up. Our investment is helping Morgan Solar commercialize a new line of concentrated photovoltaic (PV) panels that boost the power output of solar cells. The technology provides an innovative means of generating solar power more efficiently, for less cost and with a lower environmental footprint. In 2015, GPT&ET committed to a follow-on investment of \$150,000 to support a demonstration of the technology at the Silver State North solar facility in Nevada. Construction of this demonstration project is expected to begin in 2016. This demonstration project has also received funding from the Canadian federal government through the Sustainable Development Technology Canada (SDTC) fund.

Run-of-River Hydro

Enbridge has a 50-per-cent interest in the Wasdell Falls Hydro Power Project on Ontario's Severn River, north of Toronto. The 1.65-MW project completed construction and began commercial operation in December 2015. By directing water through a slow-moving turbine that returns the water to the river, the project is expected to have a low impact on its surroundings. This project is the first commercial deployment of this innovative technology in North America.

Electricity from Waste Energy Sources

Since 2012, Enbridge has invested in Genalta Power, a privately held Canadian corporation that builds, owns, operates and maintains independent power production facilities fueled by waste, excess or unused energy sources. Genalta Power already has 95.4 MW of projects with signed power purchase agreements and engineering projects throughout Canada, with several pending global installations.

Utility-Scale Energy Storage Technologies

As one of Canada's largest producers of solar and wind power, and a company with large renewable energy projects in the U.S. as well, we are investing in technologies that support large-scale energy storage.

In April 2012, we entered into a partnership with Mississauga, Ontario-based Hydrogenics Corporation, whose water electrolysis technology can convert surplus renewable energy into hydrogen gas. Under the partnership, which included a \$5-million investment by Enbridge, excess electricity from renewable generation would be converted into renewable hydrogen through electrolysis and injected into GD's natural gas distribution network. By converting

electricity to gas and storing it in vast natural gas pipeline networks, more renewable energy can be stored for long periods, increasing the amount of clean energy that can be generated and made available for consumers.

Currently, Enbridge and Hydrogenics are jointly developing a power-to-gas storage plant that will deliver 2 MW of storage capacity and will be located in the Greater Toronto Area. Hydrogenics will supply the facility's next-generation proton exchange membrane (PEM) electrolyzers and is partnering with us to develop, build and operate the energy storage facility to provide regulation services to Ontario's Independent Electricity System Operator (IESO). The project is expected to begin commercial operation in 2016.

Since 2013, we have also invested \$6.5 million in Temporal Power, an Ontario-based manufacturer of electrical energy storage systems. Temporal Power's electrical energy storage technology is based on 4,080-kilogram (9,000-pound) solid-steel flywheels—essentially, mechanical batteries that store electrical energy as kinetic energy through continuous high-speed rotation. These flywheels can store surplus energy from renewable sources and then release that power quickly and powerfully back to the grid via an electricity generator, keeping the grid in balance and enabling the grid to embrace intermittent renewable sources such as wind and solar. Temporal's technology has been incorporated into a 2-MW flywheel energy storage facility in Harriston, Ontario. In 2015, GPT&ET made a follow-on investment of \$1.5 million to support further commercialization of the flywheel technology.

Carbon Utilization

In 2014, we invested US\$10 million in Skyonic, a Texas-based developer of carbon-capture technology. Skyonic has developed a new process that captures carbon dioxide and converts the GHG into other products, including sodium carbonate and sodium bicarbonate, hydrochloric acid and bleach. In 2015, Skyonic commenced operations at a carbon capture and conversion demonstration project in San Antonio, Texas, with support from the U.S. Department of Energy.

Other Investments

We also continue to fund projects in advanced pipe technologies, natural gas transportation and bitumen extraction:

Advanced Composite Pipe

In 2013, we invested US\$9.5 million in Smart Pipe Technologies, a developer, manufacturer and installer of a high-pressure internal replacement pipe. The technology can use existing pipe as a conduit through which the high-strength, fiber-wrapped composite pipe is drawn, eliminating the need to retrench and making it especially suitable for use in environmentally sensitive or difficult-to-access areas such as river crossings and urban areas. In 2015, GPT&ET made a follow-on investment of \$1.5 million to support further technology development. We continue to evaluate opportunities to deploy the technology in our business segments. LP, for example, is working with Smart Pipe to identify other applications that could take advantage of the unique properties of this composite pipe technology.

Marine Transportation of Compressed Natural Gas

Since 2010, we have invested \$10 million in Sea NG, a Canadian company committed to commercializing marine compressed natural gas transportation. Sea NG has developed a system to transport compressed natural gas by sea. The gas will be held in purpose-built modules called coselles (coiled pipe in a carousel) that are designed to hold large amounts of compressed natural gas. This technology has the potential to reduce GHG emissions by displacing diesel and heavy fuel oils currently used in numerous coastal and island markets with clean, abundant natural gas.

Bitumen Extraction

Enbridge invested \$15 million in Nsolv Corporation in 2006 to support the development of an innovative bitumen extraction technology. Nsolv's technology uses warm propane or butane to dissolve and recover bitumen from in situ (in place) reserves efficiently and sustainably. Because of its low pressure, low temperature operation, it requires very little energy to produce the oil, helping to significantly reduce GHG emissions intensity compared to steam-assisted gravity drainage methods, and without the need for water. Since 2014, Nsolv has operated a pilot project at Suncor Energy's Dover oil sands lease northeast of Fort McMurray. In September 2015, the project surpassed a key milestone, producing 60,000 barrels of oil, and operations are ongoing to continually improve and refine the process.

Industry Leadership

We continue to shape industry best practices and technology development through associations such as:

- American Petroleum Institute (API),
- Canadian Energy Pipeline Association (CEPA),
- Canadian Gas Association (CGA),
- American Gas Association (AGA),
- Southern Gas Association (SGA), and
- Association of Oil Pipe Lines (AOPL).

For more information, please see the Maintaining the Fitness of our Systems and Leak Detection section of this report.

We also actively advance R&D and technology innovation through a number of industry research organizations, including:

- Pipeline Research Council International (PRCI), a global collaborative research development organization for the energy pipeline industry,
- Petroleum Technology Alliance Canada (PTAC), a non-profit association that facilitates innovation and collaborative R&D in the upstream oil and gas industry,
- NYSEARCH, a leading natural gas research, development and demonstration organization based in the U.S., and
- Operations Technology Development (OTD), a partnership of North American natural gas distribution companies formed to develop, test and implement new technologies.

In 2015, we took a lead role in establishing the Canadian Pipeline Technology Collaborative (CPTC). The collaborative is a new initiative to develop and deploy technologies improving the safety and reliability of Canadian pipeline operations. CPTC will bring together Canada's pipeline operators, researchers, technology providers and equipment suppliers to address industry-wide priorities.

APPENDICES

AWARDS & RECOGNITION

By focusing on our [core values](#) of Integrity, Safety and Respect in support of our communities, the environment and each other, we have received many awards and much recognition over the years from independent third parties for our performance in the areas of sustainability, safety, human resources, community investment and corporate reporting. Listed below are some of the awards and recognition we received in 2015.

Sustainability

Global 100 Most Sustainable Corporations in the World

Corporate Knights included Enbridge on its Global 100 Most Sustainable Corporations in the World listing that includes corporations from around the world that have been most proactive in managing environmental, social and governance issues. Enbridge was named to the Global 100 in 2010, 2011, 2012, 2013, 2014 and again in January 2015.

Dow Jones Sustainability Indices (DJSI)

DJSI selected Enbridge as an index component of both its North America Index—which is based on the top 20 percent of corporate sustainability performers—and its World Index—which is based on the top 10 percent, from an original grouping of nearly 3,400 companies. The DJSI indices track the financial performance of the leading sustainability-driven companies in the world based on an analysis of financially material economic, environmental and social factors. In the DJSI's 16 years of existence, Enbridge has been named to the North America Index eight times and to the World Index six times (including the past four consecutive years).

World's Greenest Companies

For the second consecutive year, *Newsweek* added Enbridge to its list of the World's Greenest Companies, which ranks the 500 largest publicly traded companies globally on their corporate sustainability and environmental impact.

Best 50 Corporate Citizens in Canada

For the 13th consecutive year, Corporate Knights recognized Enbridge as being one of Canada's Best 50 Corporate Citizens. The ranking is the longest running of its kind and is determined based on a thorough analysis of contenders' publicly disclosed environmental, social and governance indicators.

Canadian Wind Energy Association Project-of-the-Year Award

The Canadian Wind Energy Association (CanWEA) recognized the Enbridge-EDF EN Canada jointly owned Blackspring Ridge wind farm with the Project-of-the-Year Award for demonstrating exceptional commitment to responsible and sustainable development through initial development, community engagement, permitting and

construction. Blackspring Ridge is the second facility that is jointly owned by Enbridge and EDF EN Canada to receive this award, as CanWEA presented it to the Lac Alfred wind farm in Quebec in 2013.

Safety

National Maintenance Agreements Policy Committee Zero Injury Safety Awards

The National Maintenance Agreements Policy Committee presented Enbridge with two Zero Injury Safety Awards in recognition of our commitment to safety while constructing six crude oil storage tanks in Illinois and Michigan.

American Gas Association Safety Achievement Award

For the second consecutive year, the American Gas Association recognized Enbridge Gas Distribution as an industry leader in employee safety.

Canadian Gas Association Award for Public Safety Leadership

The Canadian Gas Association presented Enbridge Gas Distribution with the CGA Public Safety Leadership Award for excellence and leadership in fostering public awareness and education about the safe use of natural gas and safety in working on or around natural gas infrastructure on public or private property.

Employee Engagement

Canada's Top 100 Employers for 2015

Canada's Top 100 Employers listing is a national evaluation of the employers that lead their industries in creating exceptional workplaces for their employees. This is the 10th consecutive year Enbridge has been included on the list, and the 13th year it has been included since the list's inception 15 years ago.

The Financial Post's 2016 10 Best Companies to Work For

This listing, which *Financial Post* has placed Enbridge on for the third consecutive year, recognizes Canadian companies that offer tremendous career advancement opportunities together with leading-edge employee perks and benefits.

Canada's Best Diversity Employers

Mediacorp recognized Enbridge with this award for being an employer that understands the importance of diversity.

Best Places to Work in Atlantic Canada

Progress magazine, along with the Best Companies Group, ranked Enbridge Gas New Brunswick 12th out of the 31 companies they recognized in their Best Places to Work in Atlantic Canada 2015 ranking.

Canadian Society for Training and Development Canadian Awards for Training Excellence

Canadian Society for Training Development recognized Enbridge for developing and launching a multi-platform, best-in-class company Leadership Development program.

Nielsen Norman Group's 10 Best-Designed Intranets

The Nielsen Norman Group recognized Enbridge's intranet, Elink, as being one of the top 10 intranets in the world based on design and usability.

Aboriginal Engagement

Canadian Council for Aboriginal Business Progressive Aboriginal Relations

The Canadian Council for Aboriginal Business (CCAB) recertified Enbridge's 2012 silver-level certification under the Progressive Aboriginal Relations (PAR) program, which measures a company's level of employment engagement, investment and support for Aboriginal business development.

Community Investment

United Way of Calgary and Area Spirits of Gold Award of Excellence

The United Way of Calgary and Area recognized Enbridge with the Spirits of Gold Award of Excellence to acknowledge the outstanding leadership and dedication that Enbridge's employees displayed during the United Way's annual campaign.

Governance

Report on Business

Report on Business listed Enbridge in 24th place on its 14th annual Corporate Governance Rankings, which rate Canada's corporate boards using a rigorous set of governance criteria to go beyond the minimum mandatory rules imposed by regulators.

Corporate Reporting

Chartered Professional Accountants of Canada (CPA Canada) Corporate Reporting Award

The Corporate Reporting Awards, presented annually by CPA Canada, recognize the best reporting practices—both financial and non-financial—in the country. For the fifth consecutive year, Enbridge received the 2015 Award of Excellence for Corporate Reporting in the "Utilities and Pipelines/Real Estate" industry sector.

INTEGRATING CSR & SUSTAINABILITY TIMELINE

CSR and sustainability are not new to Enbridge. As the timeline below illustrates, we have a long history of integrating this area into our decision making in alignment with global milestones.

Date	Milestone
1983	Under the leadership of Gro Harlem Brundtland, former Prime Minister of Norway, the World Commission on Environment and Development (WCED) tackles the accelerating deterioration of the human environment and natural resources, and the implications for social and economic development.
1987	<i>Our Common Future</i> , a report of the WCED (also known as the Brundtland Report), calls for a more integrated approach to the social, economic and environmental dimensions of development, and introduces the concept of Sustainable Development, which it defines as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”
1988	The World Meteorological Organization and UN Environment Programme (UNEP) establish the Intergovernmental Panel on Climate Change (IPCC) to help develop the scientific basis for international climate change negotiations.
1990	The IPCC releases its first report, which says that “emissions resulting from human activities are substantially increasing the atmospheric concentrations of GHGs.” The report leads to a call for a global treaty.
1992	<p>The First UN Conference on Environment and Development (the “Earth Summit”) is held in Rio de Janeiro, and results in the establishment of the UN Framework Convention on Climate Change (UNFCCC), the UN Convention on Biological Diversity and the Convention to Combat Desertification.</p> <p>The UN Commission for Sustainable Development (UNCSD), the World Business Council on Sustainable Development (WBSD) and Business for Social Responsibility (BSR) are established.</p>
1995	The 1st Convention of the Parties (COP 1) to the UNFCCC meets in Berlin, Germany. Country signatories to the UNFCCC comprise the Parties, who agree to meet each year at the COP to negotiate multilateral responses to climate change. COP 1 lays the groundwork for the 1997 Kyoto Protocol, which becomes the world’s first international treaty on GHG reduction. It also lays the groundwork for the 2015 Paris Agreement.
1995	Enbridge Gas Distribution establishes its first Demand-Side Management (DSM) program to help consumers reduce their energy consumption and save money through education, incentives and other resources.

1996	The International Standards Organization (ISO) releases ISO 14000, a new performance standard for corporate environmental management systems. The standard establishes a “Plan-Do-Check-Act” framework that validates the need for corporations that commit to sustainable development practices to maintain environmental management systems that provide for legal compliance, continuous improvement, and ongoing reporting, evaluation and third-party validation of performance.
1997	The Global Reporting Initiative (GRI) pioneers a comprehensive sustainability reporting framework for issues such as climate change, human rights and corruption that has since been adopted by companies throughout the world. Established in 1997, the GRI is an international not-for-profit organization that has developed the world’s most widely used framework for sustainability reporting based on input from governments, NGOs, communities and companies. The GRI’s roots lie in the Coalition for Environmentally Responsible Economies (CERES), an alliance between investors, companies and environmental organizations that, in the wake of the 1989 Exxon Valdez oil spill, established a set of principles for improving corporate environmental practices.
1999	Enbridge forms its Pathfinders Group, which is charged with searching the world for new technologies that would make strategic, long-term sense for the company to invest in. If the Pathfinders Group found an idea it deemed to be technically sound, Enbridge explored ways to make the idea commercially viable. Enbridge’s current investments in renewable energy—as well as the company’s investments in various alternative and emerging technologies—were all incubated within the Pathfinders Group.
2000	<p>The UN launches the UN Global Compact (UNGC), the world’s largest corporate citizenship initiative. The UNGC is based on 10 principles in the areas of human rights, labor, the environment and anti-corruption. Enbridge becomes a signatory in 2003.</p> <p>The UN adopts the Millennium Development Goals with the goal of achieving the goals—which cover poverty, education, gender equality, child mortality, maternal health, HIV/AIDS, sustainability and global partnership—by 2015.</p> <p>The CDP (formerly the Carbon Disclosure Project) is founded. Now representing 822 institutional investors with US\$95 trillion in assets, the CDP works with corporations to disclose data on GHG emissions, water, supply chains and deforestation.</p>
2001	Enbridge publishes its first Environment, Health & Safety report, which, in 2004, it expands to be a comprehensive Corporate Social Responsibility report.
2002	<p>Enbridge invests in the SunBridge wind farm in Saskatchewan, launching the company’s renewable energy investment portfolio. By the end of 2015, Enbridge will have invested about \$5 billion in renewable power generation and transmission and will have interests in nearly 2,800 MW of gross renewable generating capacity operating, secured or under construction.</p> <p>The Dow Jones Sustainability Index (DJSI) launches the first indexes to track the financial performance of the leading sustainability-driven companies in the world and in North America.</p> <p>The DJSI (World) includes Enbridge for the first time on its index of the top 10 percent of corporate sustainability performers in the world. DJSI will again include Enbridge on its World index in 2005, 2012, 2013, 2014 and 2015.</p>

2003	Enbridge begins publicly disclosing its own GHG emissions through the Canadian Standards Association Voluntary Challenge and Registry, under which, in 2003, 2004, 2007, 2008 and 2009, the company was named a Gold Champion Level Reporter. Enbridge continues to disclose its emissions—and energy use—through the CDP.
2004	Enbridge establishes its first Corporate Social Responsibility Policy, which covers business ethics and transparency; environment, health and safety; stakeholder, Aboriginal and Native American engagement; employee relations; human rights; and community investment. This policy applies to the activities that the company undertakes anywhere in the world by, or on behalf of, Enbridge and its subsidiaries and affiliates, whose operations the company manages.
2005	<p>Corporate Knights launches its Global 100 Most Sustainable Corporations in the World listing at the World Economic Forum in Davos, Switzerland. It includes Enbridge for the first time on its listing of the 100 Most Sustainable Corporations in the World. Corporate Knights will again include Enbridge in 2006, 2007, 2010, 2011, 2012, 2013, 2015 and 2016.</p> <p>Enbridge expands its gas pipelines and processing assets by acquiring Shell Gas Transmission, which includes ownership interests in 11 natural gas transmission and gathering pipelines in five major offshore Gulf of Mexico corridors. In 2009, Enbridge acquires the Walker Ridge Gathering System for ultra-deepwater discoveries in the Gulf of Mexico, which further expands its asset base.</p>
2006	<p>Enbridge adopts the Global Reporting Initiative guidelines for sustainability reporting in its Corporate Social Responsibility Report focused on 2005 data.</p> <p>Enbridge submits its first response to the CDP climate change questionnaire. Enbridge now submits responses every year and, in 2014, began submitting responses to CDP's water questionnaire, outlining the actions the company is taking to safeguard water resources and manage global water risks.</p> <p>Harvard Business School makes the business case for corporate sustainability and responsibility. In "The Link Between Competitive Advantage and Corporate Social Responsibility," Michael Porter and colleagues argue that, by integrating sustainable development principles and practices in business decision making, businesses can do more than simply mitigate harm. They can boost their innovation and competitiveness by improving resource efficiency, risk management, access to human and financial capital, and access to new markets and business opportunities.</p>
2007	<p>Enbridge establishes its first Climate Change Policy, under which it commits to reducing its own GHG emissions and energy use. Enbridge is committed to working within its individual business segments and, at a broader collaborative level, to working with external stakeholders and decision makers to advance climate solutions.</p> <p>The DJSI (North America) includes Enbridge for the first time on its index of the top 20 percent of corporate sustainability performers in North America. DJSI will again include Enbridge on its North America index in 2008, 2009, 2010, 2012, 2013, 2014 and 2015.</p> <p>The CDP includes Enbridge on its Leadership Index. CDP will again include Enbridge on the Leadership Index in 2008, 2009, 2010 and 2012. In 2013 CDP included Enbridge on its Global 500 List of the top 500 companies in the area of GHG disclosure and management.</p>

<p>2008</p>	<p>Enbridge sets a new Canadian operations GHG reduction target to reduce direct emissions by 20 percent below 1990 levels by 2010. In 2011, Enbridge determined that it had, in fact, achieved a 21 percent reduction below 1990 levels, primarily through upgrading facilities and equipment.</p> <p>The UN establishes its Principles for Responsible Investment (UNPRI), which are a set of voluntary guidelines for investors wanting to address environmental, social and corporate governance issues through their investment decisions. The UNPRI has over 850 signatories who represent approximately \$22 trillion (10 percent of global capital markets), including asset owners, investment managers and financial service providers.</p>
<p>2009</p>	<p>World leaders gather for the 15th COP in Copenhagen, Denmark, which results in the Copenhagen Accord. The Copenhagen COP was widely considered to be a failure due to the fact that it did not result in the new global agreement on climate change it set out to achieve.</p>
<p>2013</p>	<p>Enbridge hires its first Chief Sustainability Officer to provide company-wide oversight of its CSR strategies and activities.</p> <p>Enbridge Gas Distribution (EGD) reaches the milestone of serving two million Ontario residents and businesses in more than 100 Ontario communities. EGD is the largest natural gas distribution utility in Canada and one of the fastest-growing in North America. It distributes approximately 464 billion cubic feet—which is about 13 billion cubic meters of natural gas each year.</p>
<p>2014</p>	<p>World leaders gather for the 20th COP in Lima, Peru, which provides the Parties (country signatories to the UNFCCC) an opportunity to make a last collective push toward a new and meaningful universal agreement in Paris in 2015.</p> <p>The IPCC releases the Working Group II contribution to its Fifth Assessment Report on impacts, adaptation and vulnerability.</p> <p>UN Secretary-General Ban Ki-moon hosts a climate summit in New York City, inviting representatives from government, business, finance and civil society to mobilize action on climate change in advance of the 21st COP to be held in Paris in 2015.</p> <p>Between 1995 and 2014, EGD's DSM programs saved about 9.6 billion cubic meters of natural gas and 18 million tonnes of carbon dioxide emissions. These reductions would be similar to taking about 3.5 million cars off the road for a year or serving approximately 4 million homes for a year. The reductions resulted in net energy savings to customers of about \$2.5 billion.</p>
<p>2015</p>	<p>Enbridge supports Alberta's Climate Leadership Plan, which Enbridge CEO Al Monaco, called "a turning point for our province and our industry."</p> <p>The 21st COP takes place in Paris.</p> <p>More than 190 heads of state approve the United Nations' 17 new Sustainable Development Goals and 169 targets. World leaders pledge joint action and endeavor across a broad and universal policy agenda.</p> <p>Enbridge works to establish a robust baseline for new, business-segment specific GHG emissions targets.</p>

2016	In partnership with EGD and Union Gas, the Ontario government invests \$100 million in an Ontario Energy Retrofit Program to help homeowners conduct audits and undertake retrofits that improve energy efficiency. Ontario's new Green Investment Fund provided the funding, which it derived from revenue from the province's new carbon pricing system. The funding will enable EGD to expand its demand-side management programs.



ACRONYMS

	ACRONYM	FULL NAME
A	AACO	Alberta Association for Conservation Offsets
	AC	Alternating current
	ACFE	Association of Certified Fraud Examiners
	ACFFO	Available cash flow from operations
	AD&D	Accidental Death and Dismemberment [insurance]
	AED	Automated external defibrillator
	AER	Alberta Energy Regulator
	AERG	Aboriginal Employee Resource Group
	AGA	American Gas Association
	AMP	Administrative Monetary Penalty
	AODA	Accessibility for Ontarians with Disabilities Act
	AOPL	Association of Oil Pipe Lines
	API	American Petroleum Institute
	AUV	Autonomous Underwater Vehicle
B	Bpd	Barrels per day
	B.C.	British Columbia
	BSR	Business for Social Responsibility
C	CA	Conservation Authority
	CAC	Criteria air contaminants
	CAEPL	Canadian Association of Energy and Pipeline Landowners Associations
	CanWEA	Canadian Wind Energy Association
	CCAB	Canadian Council for Aboriginal Business
	CDP	Carbon Disclosure Project [formerly]
	CEA	Canadian Environmental Assessment
	CEAPLA	Canadian Association of Energy and Pipeline Landowners Association

	CEE	Carbon and Energy Efficiency [plans]
	CEO	Chief Executive Officer
	CEPA	Canadian Energy Pipeline Association
	CERES	Coalition for Environmentally Responsible Economies
	CGA	Canadian Gas Association
	CO	Carbon monoxide
	CO ₂	Carbon dioxide
	COP	Convention of the Parties
	CPA	Chartered Professional Accountants
	CPM	Computational pipeline monitoring
	CPR	Cardiopulmonary resuscitation
	CPTC	Canadian Pipeline Technology Collaborative
	CRA	Corporate Risk Assessment
	CSA	Canadian Standards Association
	CSMN	Contractor Safety Management Network
	CSO	Chief Sustainability Officer
	CSR	Corporate Social Responsibility
D	DAIF	Days Away Incident Frequency
	DART	Days Away, Restricted or Transferred
	DC	Direct current
	DJSI	Dow Jones Sustainability Index
	DSM	Demand-side management
E	E4e	Energy4Everyone Foundation
	EBIT	Earnings before interest and taxes
	ECT	Enbridge Commercial Trust
	EELP	Enbridge Energy, Limited Partnership
	EEP	Enbridge Energy Partners, L.P.
	EGD	Enbridge Gas Distribution
	EGNB	Enbridge Gas New Brunswick

	EH&S	Environment, health and safety
	EIF	Enbridge Income Fund
	EIPLP	Enbridge Income Partners LP
	EIS	Environmental impact statement
	ELDER	External Leak Detection Experimental Research
	ELT	Executive Leadership Team
	EMAS	Eco-Management and Audit Scheme
	EMAT	Electromagnetic acoustic transducer
	EMS	Environmental Management System
	ENBU	Enbridge University
	ENGO	Environmental non-governmental organizations
	EPA	U.S. Environmental Protection Agency
	EPP	Environmental Protection Plan
	EPS	Earnings per share
	EREP	Emergency Responder Education Program
	ERG	Employee Resource Group
	ERM	Enterprise Risk Management
	ESA	Environmental and socio-economic assessment
	ESG	Environmental, social and governance
	ESPP	Enbridge School Plus Program
	EVP	Executive Vice President
F	FAN	Facility Audit Network
	FERC	Federal Energy Regulatory Commission
	FLIR	Forward looking infrared [cameras]
	FSP	Flanagan South Pipeline
	FT	Full time
G	GD	Gas Distribution
	GHG	Greenhouse gases
	GIS	Geographic Information System

	GJ	Gigajoule
	GM	General Manager
	GPP&ES	Gas Pipelines, Processing & Energy Services
	GPS	Global Positioning System
	GPT&ET	Green Power, Transmission and Emerging Technology
	GRI	Global Reporting Initiative
	GTA	Greater Toronto Area
	GWP	Global Warming Potential
H	H4H	Habitat for Humanity
	H4HGTA	Habitat for Humanity Greater Toronto Area
	HDD	Horizontal directional drilling
	HEO	Heavy Equipment Operator [program]
	H ₂ S	Hydrogen sulfide [also sour gas]
	HVAC	Heating, ventilating and air conditioning
	HVL	Heavy volatile liquids
	HWN	Huron-Wendat Nation
I	IBEW	International Union Brotherhood of Electrical Workers
	ICS	Incident Command System
	IDP	Individual Development Plan
	IESO	Independent Electricity System Operator
	ILI	In-line inspection
	IMS	Integrated Management System
	Int-MS	Integrated Management System [for Enbridge's Gas Distribution business segment]
	INGAA	Interstate Natural Gas Association of America
	IPCC	Intergovernmental Panel on Climate Change
	IPL	Interprovincial Pipe Line
	ISDM	Integrated service delivery model
	ISN	ISNetwork
	ISO	

	IT IUCN	International Organization for Standardization Information Technology International Union for the Conservation of Nature
J	JIP JRP	Joint Industry Partnership Joint Review Panel
K	kg	Kilogram
L	L3RP LDAR LEAD LEED LMS LNG LP LTD	Line 3 Replacement program Leak Detection and Repair Leadership Experience Action-based Development [program] Leadership in Energy and Environmental Design Learning Management System Liquefied natural gas Liquids Pipelines Long-term disability
M	M2M m/s MACRS MCK MD&A MDEQ MEP MEU MHCC MMSCF MOECC MP MPLA MPUC MSA	Machine-to-machine Meters per second Modified Accelerated Cost Recovery System Kahnawake First Nation Management's Discussion and Analysis Michigan Department of Environmental Quality Midcoast Energy Partners L.P Mobile Education Unit Mental Health Commission of Canada Million standard cubic feet Ontario Ministry of Environment and Climate Change Major Projects Manitoba Pipeline Landowners Association Minnesota Public Utilities Commission Master Service Agreement

	MTM	Magnetic tomography method
	MVI	Motor Vehicle Incident
	MW	Megawatts
N	NEB	National Energy Board [Canada]
	NETS	Network of Employers for Traffic Safety
	NFWF	U.S. National Fish and Wildlife Foundation
	NGLs	Natural gas liquids
	NGP	Northern Gateway Pipeline
	NGV	Natural gas vehicle
	NO _x	Nitrogen oxide
	NOV	Notice of Violation
	NPRI	National Pollutant Release Inventory
	NYSE	New York Stock Exchange
O	ODS	Ozone-Depleting Substances
	OHSMS	Occupational Health and Safety Management System
	OIC	Operations and Integrity Committee
	OPEC	Organization of Petroleum Exporting Countries
	ORM	Operational Risk Management
	OSHA	Occupational Health and Safety Administration
	OTD	Operations Technology Development
P	PAP	Public Awareness Program
	PAR	Progressive Aboriginal Relations [program]
	PCSR	Pipeline Construction Safety Roundtable
	PERG	Parents and Caregivers Employee Resource Group
	PHMSA	Pipeline and Hazardous Materials Safety Administration [U.S.]
	PIP	Public Involvement Program
	PJ	Petajoule
	PJM	Pennsylvania, Jersey, Maryland
	PM	Particulate matter

	PPA	Power purchase agreement
	PRCI	Petroleum Research Council International
	PSM	Process Safety Management
	PT	Part time
	PTAC	Petroleum Technology Alliance Canada
	PTC	Production Tax Credit
	PTO	Paid time off
	PV	Photovoltaic
Q	QA	Quality Assurance
R	R&D	Research and development
	REC	Renewable energy credits
	REP	Regional Engagement Plan
	RFP	Request for Proposal
	RFx	Requests for Information, Proposal, Quote and Bid
	ROC	Renewable Obligation Certificates
S	S&P	Standard & Poor's
	SAPL	Saskatchewan Association of Pipeline Landowners
	SARA	Species at Risk Act
	SCADA	Supervisory control and data acquisition
	SCM	Supply Chain Management
	SDO	Scheduled Day Off
	SDTC	Sustainable Development Technology Canada
	SF ₆	Sulfur hexafluoride
	SGA	Southern Gas Association
	SIA	Strathcona Industrial Association
	SLEA	Sarnia-Lambton Environmental Association
	SO ₂	Sulfur dioxide
	SoC	Statement of Concern
	SRC	Safety and Reliability Committee

	SRM	Supplier Relationship Management [program]
	STD	Short-term disability
	SVP	Senior Vice President
T	t CO2e	Tonne of carbon dioxide equivalent
	TERO	Tribal Employment Resource Ordinance Office
	TOC	Technology and Operations Centre
	TPM	Total particulate matter
	TRIF	Total Recordable Injury Frequency
	TSB	Transportation Safety Board of Canada
	TSR	Total Shareholder Return
	TSX	Toronto Stock Exchange
U	UK	United Kingdom
	UN	United Nations
	UNCSD	United Nations Commission for Sustainable Development
	UNEP	United Nations Environment Programme
	UNFCCC	United Nations Framework Convention on Climate Change
	UNGC	United Nations Global Compact
	UNPRI	United Nations Principles for Responsible Investment
	U.S.	United States of America
	USW	United Steelworkers
V	VIP	Volunteers in Partnership
	VP	Vice President
W	WBSD	World Business Council on Sustainable Development
	WCED	World Commission on Environment and Development

