

***ENBRIDGE***  
***2012***  
***CORPORATE***  
***SOCIAL***  
***RESPONSIBILITY***  
***REPORT***



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Visit [www.enbridge.com](http://www.enbridge.com) to learn more.

# ***ABOUT ENBRIDGE***

Over the past 60 plus years, Enbridge has become a leader in the safe and reliable delivery of energy in North America. We are proud that Corporate Knights has recognized us as one of the Global 100 Most Sustainable Corporations in the World.

**We transport energy**, operating the world's longest, most sophisticated crude oil and liquids transportation system. We have a significant, and growing, position in natural gas gathering, transmission and midstream businesses, and an emerging focus on power transmission.

**We generate energy**, expanding our interests in renewable energy and alternative energy technologies, including wind, solar and geothermal energy, fuel cells and waste heat recovery facilities.

**We distribute energy**, owning and operating Canada's largest natural gas distribution company, and provide distribution services in Ontario, Quebec, New Brunswick and New York State.

Enbridge manages and has a 69.2 per cent overall economic interest in Enbridge Income Fund and a 23.0 per cent overall ownership in Enbridge Energy Partners, L.P.

Enbridge's corporate headquarters are in Calgary, Alberta, and, as at September 30, 2012, we had over 10,000 employees in Canada and the United States. We are ranked as one of the Top 100 Employers to Work for in Canada, and one of Canada's Greenest Employers. Enbridge Inc. common shares trade on the Toronto and New York stock exchanges under the symbol ENB.

For more information about Enbridge, please visit <http://www.enbridge.com/>.

# ***ABOUT THE ENBRIDGE 2012 CORPORATE SOCIAL RESPONSIBILITY REPORT***

Enbridge's 2012 CSR Report was prepared using the Global Reporting Initiative (GRI) G3.1 sustainability reporting guidelines, which serve as a generally accepted framework for reporting on an organization's economic, environmental and social performance. Abbreviations such as EC1, EN3 and PR6 (in this report's Economic, Environment and Product Responsibility sections, respectively) refer to GRI Performance Indicators, which Enbridge addresses in this report. For more information on the GRI, please visit [www.globalreporting.org](http://www.globalreporting.org).

## **Websites and Hyperlinks**

Enbridge's 2012 CSR Report contains references to the websites of Enbridge Inc., certain of its affiliates and the Global Reporting Initiative (GRI) and to certain documents posted on these websites. In addition, the online version of Enbridge's 2012 CSR Report contains hyperlinks to these websites and documents. None of the information contained on, or connected to, these websites or documents is incorporated by reference in or otherwise part of Enbridge's 2012 CSR Report.

# ***FORWARD-LOOKING INFORMATION***

Forward-looking information, or forward-looking statements, have been included in Enbridge's 2012 Corporate Social Responsibility Report to provide the company's shareholders, potential investors and other stakeholders with information about the company and its subsidiaries and affiliates, including management's assessment of Enbridge's 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" 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: expected earnings or adjusted earnings; expected earnings or adjusted earnings per share; 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 costs related to leak remediation and potential insurance recoveries; 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 the climate change issue; and future power consumption by the company and its subsidiaries.

Although Enbridge believes that 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 expected supply and demand for crude oil, natural gas and natural gas liquids; prices of crude oil, natural gas and natural gas liquids; expected exchange rates; inflation; interest rates; the availability and price of labour and pipeline construction materials; operational reliability; customer project 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 demand for renewable energy and alternative energy technologies; and weather. Assumptions regarding the expected supply and demand of crude oil, natural gas and natural gas liquids, 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, 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 or adjusted earnings and associated per share amounts, or estimated future dividends. The most relevant assumptions associated with forward-looking statements on projects under construction, including estimated in-service dates, and expected capital expenditures include: the availability and price of labour and pipeline construction materials; the effects of inflation and foreign exchange rates on labour and material costs; the effects of interest rates on borrowing costs; and the impact of weather and customer and regulatory approvals on construction schedules.

Enbridge's forward-looking statements are subject to risks and uncertainties pertaining to operating performance; changes to regulatory parameters, including those related to GHG emissions; project approval and ongoing support; weather; economic and competitive conditions; exchange rates; interest rates; commodity prices; and supply and demand for commodities. These include, but are not limited to, those risks and uncertainties discussed in this 2012 Corporate Social Responsibility 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 law, Enbridge assumes no obligation to publicly update or revise any forward-looking statements made in this 2012 Corporate Social Responsibility 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.

# AWARDS AND RECOGNITION

## **Corporate Social Responsibility Awards and Recognition**

Over the years, Enbridge has received many CSR-related awards and much recognition. Criteria such as financial health; environmental performance; workplace health, safety and fairness; community relations; and public disclosure were considered in the following awards:

- **Alberta's Top Employers** 2010, 2011, 2012
- **Alberta's Most Respected Corporations (*Alberta Venture*)** – Top three for Financial Performance 2010
- **Best Crisis Management (*IR Magazine Canada Awards*)** 2011
- **Best Utility-Scale Project in North America, Renewable Energy World** (for Enbridge's Sarnia Solar Project) 2010
- **Canada's Greenest Employers** 2010, 2011, 2012
- **Canada's Top 100 Employers** 2010, 2011, 2012
- **Canada's Top Employers for Young People** 2011
- **Canadian Institute of Chartered Accountants Corporate Reporting Award** 2011 – Enbridge was recognized for both its financial and sustainable development reporting
- **Corporate Knights Best 50 Corporate Citizens in Canada** 2010, 2011, 2012
- **Corporate Knights Global 100 Most Sustainable Large Corporations in the World** 2010, 2011, 2012
- **Dow Jones Sustainability Index (North America)** 2012/2013
- **Dow Jones Sustainability Index (World)** 2012/2013
- **Financial Post's Ten Best Companies to Work For** 2010
- **Forbes 100 Most Trustworthy Companies in America** (Enbridge Energy Partners) 2010, 2012
- **FTSE4Good Index** 2010, 2012, 2013
- **Gold Champion Level Reporter** (Canadian Standards Association's GHG Registry) 2009, 2010, 2011
- **Global 500 Carbon Disclosure Leadership List** (Carbon Disclosure Project) 2010, 2011, 2012
- **Intranet Design Annual 2010: The Year's 10 Best Intranets** 2010
- **Jantzi-Sustainalytics 50 Most Responsible Corporations in Canada** 2010
- **Outstanding Corporate and Employee Campaign Award** (United Way/Centraide Central New Brunswick for Enbridge Gas New Brunswick) 2010, 2011



# STRATEGY AND PROFILE

## ORGANIZATIONAL PROFILE

Enbridge Inc. is a leader in energy transportation and distribution in North America. As a transporter of energy, Enbridge operates the world's longest crude oil and liquids transportation system. In 2011, Enbridge delivered an average of approximately 2.3 million barrels per day of crude oil along its Mainline system to customers in Canada and the United States.

Enbridge also has a significant and growing involvement in natural gas gathering, transmission and midstream businesses, and an increasing involvement in power transmission.

As a distributor of energy, Enbridge owns and operates Canada's largest natural gas distribution company and provides distribution services in Ontario, Quebec, New Brunswick and New York State.

As a generator of energy, Enbridge has interests in close to 1,000 megawatts of renewable and alternative energy generating capacity and is expanding its interests in wind and solar energy, geothermal and hybrid fuel cells.

As at September 30, 2012, Enbridge had over 7,500 permanent employees and over 2,500 part-time, temporary and contract employees in Canada and the United States.

## OPERATIONS AND ASSETS

Enbridge's activities are carried out through five business units: Liquids Pipelines; Gas Distribution; Gas Pipelines, Processing and Energy Services; Sponsored Investments; and Corporate.

**Liquids Pipelines** – consists of common carrier and contract crude oil, natural gas liquids (NGLs) and refined products pipelines and terminals in Canada and the United States, including the Enbridge System, the Enbridge Regional Oil Sands System, Southern Lights Pipeline, Spearhead Pipeline, Seaway Crude Pipeline interest and other feeder pipelines.

**Gas Distribution** – consists of natural gas utility operations, the core of which is Enbridge Gas Distribution Inc. (EGD), which serves residential, commercial and industrial customers, primarily in central and eastern Ontario. This business unit also includes natural gas distribution activities in Quebec, New Brunswick and northern New York State.

**Gas Pipelines, Processing and Energy Services** – consists of investments in natural gas pipelines and processing facilities, renewable energy projects, Canadian midstream businesses, Enbridge's energy services businesses and international activities.

Investments in natural gas pipelines include Enbridge's interests in the United States portion of Alliance Pipeline (Alliance Pipeline U.S.), Vector Pipeline, and transmission and gathering pipelines in the Gulf of Mexico. Investments in natural gas processing include Enbridge's interest in Aux Sable, a natural gas fractionation and extraction business, and an interest in the development of Cabin Gas Plant in northeastern British Columbia, and processing facilities connected to the Gulf of Mexico system. The energy services businesses manage Enbridge's volume commitments on Alliance and Vector Pipelines, as well as perform natural gas, NGL and crude oil storage, transport and supply management services, as principal and agent.

**Sponsored Investments** – includes Enbridge's 23.0 per cent ownership interest in Enbridge Energy Partners, L.P. (EEP), Enbridge's 66.7 per cent investment in the United States segment of the Alberta Clipper Project through EEP and Enbridge Energy, Limited Partnership (EELP), and an overall 69.2 per cent economic interest in Enbridge Income Fund (EIF), held both directly, and indirectly through Enbridge Income Fund Holdings Inc. (EIFH). Enbridge manages the day-to-day operations of, and develops and assesses opportunities for each of these investments, including both organic growth and acquisition opportunities.

EEP transports crude oil and other liquid hydrocarbons through common carrier and feeder pipelines and transports, gathers, processes and markets natural gas and NGLs. The primary operations of EIF include a crude oil and liquids pipeline and gathering system, a 50 per cent interest in the Canadian portion of Alliance Pipeline (Alliance

Pipeline Canada) and interests in renewable power generation projects.

**Corporate** – consists of the Enbridge’s investment in Noverco Inc. (Noverco), new business development activities, corporate investments, and financing costs not allocated to the business units.

## **REPORT PARAMETERS**

### **REPORT PROFILE**

Enbridge’s 2012 Corporate Social Responsibility (CSR) Report predominantly focuses on data collected and events that took place in 2011, although some significant events that took place in the first half of 2012 are also covered. Enbridge prepares a CSR Report each year. We published our previous CSR Report, which focused primarily on 2010 data, in October 2011.

Enbridge’s 2012 CSR Report covers only information on the assets that Enbridge operates. The word “Enbridge” refers to the entire company, its subsidiaries and affiliates. Where possible, the data and statistics refer collectively to all of the facilities that Enbridge operates. However, when we report information pertaining to a specific company, business unit or project—for example, Liquids Pipelines or Enbridge Gas Distribution—we note it in the text.

Dollar figures refer to Canadian dollars unless otherwise indicated.

Enbridge’s 2012 CSR Report was prepared using the Global Reporting Initiative (GRI) G3.1 sustainability reporting guidelines. These guidelines are intended to serve as a generally accepted framework for reporting on an organization’s economic, environmental and social performance. They 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 GRI 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.

To ensure that we have provided a balanced and reasonable presentation of our CSR performance, when determining the content for this report, we followed the GRI’s “Reporting Guidance for Defining Content,” which can be summed up in the following steps:

1. Identify the relevant topics
2. Determine the materiality of each topic by taking into account the external and internal factors suggested by the GRI
3. Prioritize the topics based on these factors and on an analysis of stakeholders

In addition to its “Reporting Guidance for Defining Content,” the G3.1 Sustainability Reporting Guidelines include “Reporting Principles for Defining Content.” These principles are: materiality, stakeholder inclusiveness, sustainability context and completeness.

To determine the materiality of the information that we included in our 2012 CSR Report, we took into account the following factors:

- The sustainability interests and topics raised by Enbridge’s stakeholders
- The main concerns and future challenges facing the energy sector
- Relevant laws, regulations, international agreements and voluntary agreements of significance to Enbridge and our stakeholders
- Recognized impacts, risks and opportunities that affect sustainability
- Enbridge’s values, policies, strategies, management systems, goals and targets
- Enbridge’s stakeholders’ interests and expectations
- Significant risks facing Enbridge
- The critical factors that enable Enbridge’s success
- Enbridge’s core competencies and the manner in which they could contribute to sustainable development

With these factors in mind, members of each of Enbridge's CSR Expert Reporting Groups:

- Aboriginal Relations
- Community Investment
- Community & Landowner Relations
- Economic Benefits
- Environment & Climate Change
- Governance
- Health & Safety
- Systems Integrity

met during the spring of 2012 to review which topic areas were most material to Enbridge's 2012 CSR Report, based on stakeholder interest and business impact. Enbridge's CSR Expert Reporting Groups comprise subject-matter experts in various areas of the company.

Enbridge amalgamated the topic areas into three materiality matrices: one for economic, one for environmental and one for social, as follows:

Economic Materiality Matrix				
		Low	Medium	High
Stakeholder Interest	High			<ul style="list-style-type: none"> <li>• Economic benefit to:               <ul style="list-style-type: none"> <li>• Customers</li> <li>• Aboriginal communities</li> <li>• Communities</li> <li>• Shareholders/Investors</li> </ul> </li> </ul>
	Medium		<ul style="list-style-type: none"> <li>• Economic benefit to:               <ul style="list-style-type: none"> <li>• Employees</li> <li>• Governments</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Economic benefit to suppliers</li> <li>• Financial implications of climate change</li> </ul>
	Low			
		Business Impact		

Environmental Materiality Matrix				
		Low	Medium	High
Stakeholder Interest	High		<ul style="list-style-type: none"> <li>• Air emissions</li> <li>• Fines/penalties</li> </ul>	<ul style="list-style-type: none"> <li>• GHG emissions</li> <li>• Energy use</li> <li>• Investing in renewables</li> <li>• Spills and releases/ Prevention and response</li> <li>• Pipeline integrity</li> <li>• Process safety</li> <li>• Emergency response</li> <li>• Public awareness and communication</li> <li>• Compliance with laws and regulations</li> </ul>
	Medium	<ul style="list-style-type: none"> <li>• Water use</li> <li>• Environmental expenditures</li> <li>• Land use</li> </ul>	<ul style="list-style-type: none"> <li>• Biodiversity/Habitat protection</li> <li>• Reclamation</li> <li>• Hazardous waste</li> <li>• Pipeline route selection</li> </ul>	<ul style="list-style-type: none"> <li>• Remediation</li> <li>• Facility maintenance</li> </ul>
	Low	<ul style="list-style-type: none"> <li>• Material use</li> <li>• Water discharges</li> <li>• Non-hazardous waste</li> <li>• Transport</li> </ul>	<ul style="list-style-type: none"> <li>• Facility design</li> </ul>	
		Business Impact		

Social Materiality Matrix				
		Low	Medium	High
Stakeholder Interest	High		<ul style="list-style-type: none"> <li>Employee wellness</li> </ul>	<ul style="list-style-type: none"> <li>Training and development</li> <li>Employee compensation</li> <li>Employee engagement</li> <li>Succession management</li> <li>Injury rates</li> <li>Stakeholder engagement</li> <li>Landowner relations</li> <li>Process safety management</li> <li>Contractor safety management</li> <li>Emergency response</li> <li>Aboriginal rights</li> </ul>
	Medium	<ul style="list-style-type: none"> <li>Career transition services</li> </ul>	<ul style="list-style-type: none"> <li>Diversity</li> <li>Discrimination</li> <li>Pay equity</li> <li>Disease prevention/Industrial hygiene</li> <li>Traditional knowledge</li> </ul>	<ul style="list-style-type: none"> <li>Employee turnover</li> <li>Performance management</li> <li>Recruitment</li> <li>Community development and investment</li> <li>Facility maintenance</li> </ul>
	Low	<ul style="list-style-type: none"> <li>Unions</li> <li>Child labour/Forced labour</li> </ul>	<ul style="list-style-type: none"> <li>Internal stakeholder engagement</li> </ul>	<ul style="list-style-type: none"> <li>Absenteeism</li> </ul>
<b>Business Impact</b>				

The results of these exercises have influenced the structure and content of Enbridge's 2012 CSR Report microsite, as well as the level of detail and analysis the company provides for each topic area. For example, Enbridge has provided the greatest level of detail and analysis for topic areas that the CSR Expert Reporting Groups have determined to have high stakeholder interest and high business impact.

The CSR Expert Reporting Groups review the matrices each year to ensure that the company accounts for shifting levels of stakeholder interest and business impact.

To ensure that the information we included in our 2012 CSR Report met stakeholder inclusiveness guidelines, we applied the following tests suggested by the GRI:

- Enbridge can describe the stakeholders to whom it considers itself accountable
- The report content draws upon the outcomes of stakeholder engagement processes used by Enbridge in its ongoing activities and as required by the legal and institutional framework in which the company operates
- The report content draws upon the outcomes of any stakeholder engagement processes undertaken specifically for the report
- The stakeholder engagement processes that inform decisions about the report are consistent with the scope and boundary of the report

Enbridge's content passed these tests because it engaged the input of key employees through the CSR Expert Reporting Groups that it formed in early 2009.

The mandate of the CSR Expert Reporting Groups is to serve as the main providers of information for Enbridge's CSR Reports and to ensure the accuracy of the information provided. The Groups are also responsible for generating new ideas, discussing issues associated with the information gathering process and resolving these issues.

Enbridge's content also passed the stakeholder pertinence tests based on an exercise that we hired Canadian Business for Social Responsibility (CBSR) to complete several years ago. CBSR is a business-led, non-profit CSR consultancy and peer-to-peer learning organization that counsels its members on how to improve CSR performance. Through this stakeholder mapping exercise, we determined that Enbridge's stakeholders include:

- Associations and civil society groups
- Employees, contractors, unions, Board of Directors
- CSR rating organizations such as the Dow Jones Sustainability Index and Jantzi Research
- Customers
- Environmental and other non-governmental organizations
- Governments and government regulatory bodies in Canada and the U.S.
- Landowners
- Media
- Right-of-way communities, including Aboriginal and Native American communities
- Shareholders (retail and institutional investors)
- Debt holders

To determine the sustainability context of the information we included in our 2012 CSR Report, we applied the tests suggested by the GRI:

- Enbridge presents its understanding of sustainable development and draws on objective and available information as well as on measures of sustainable development for the topics covered in the report
- Enbridge presents its performance with reference to broader sustainable development conditions and goals, as reflected in recognized sectoral, local, regional and/or global publications
- Enbridge presents its performance in a manner that attempts to communicate the magnitude of its impact and contribution in appropriate geographical contexts
- Enbridge's report describes how sustainability topics relate to long-term organizational strategy, risks and opportunities, including supply-chain topics

To determine the completeness of the information we included in our 2012 CSR Report, we applied the tests suggested by the GRI:

- The report was developed taking into account the entire chain of entities upstream and downstream and covers and prioritizes all information that should reasonably be considered material on the basis of the principles of materiality, sustainability context and stakeholder inclusiveness
- The report includes all entities that meet the criteria of being subject to control or significant influence of Enbridge unless otherwise declared
- The information in the report includes all significant actions or events in the reporting period and reasonable estimates of significant future impacts of past events when those impacts are reasonably foreseeable and may become unavoidable or irreversible
- The report does not omit relevant information that would influence or inform stakeholder assessments or decisions, or that would reflect significant economic, environmental and social impacts

Enbridge's CSR Report covers the activities of each of its business units, but focuses on the assets that the company operates.


## GRI CONTENT INDEX

The following table identifies the location of the GRI Standard Disclosures on Enbridge's website, [www.enbridge.com/csr2012](http://www.enbridge.com/csr2012).

GRI Standard Disclosure	Web version (web page)
Strategy and Analysis (1.1 – 1.2)	Strategy & Profile
Organizational Profile (2.1 – 2.10)	Organizational Profile
Report Parameters (3.1 – 3.13)	Report Parameters
Governance, Commitments and Engagement (4.1 – 4.17)	Governance, Commitments and Engagement
Disclosure of Management Approach, per category	Strategy & Profile, Economic Performance, Environmental Performance, Social Performance
Core Performance Indicators	Strategy & Profile, Economic Performance, Environmental Performance, Social Performance

In preparing our 2012 CSR Report, we have addressed all of the GRI G3.1 Performance Indicators. We have also responded to each core G3.1 Indicator with due regard to the G3.1 "Materiality Principle." As a result of having met these requirements, and as per the Report Application Levels grid shown below, Enbridge has self-declared this report to be at the "A" application level. For more information on the GRI application levels, please visit <https://www.globalreporting.org/reporting/reporting-framework-overview/application-level-information/Pages/default.aspx>.

### Report Application Levels

		2011 In Accordance	C	C+	B	B+	A	A+
Mandatory	Self Declared			Report Extremely Assured		Report Extremely Assured		Report Extremely Assured
	Third Party Checked			Report Extremely Assured		Report Extremely Assured		Report Extremely Assured
	GRI Checked			Report Extremely Assured		Report Extremely Assured		Report Extremely Assured

### Data Quality Statement

The information contained in the Enbridge 2012 Corporate Social Responsibility Report was supplied by subject matter experts from each of Enbridge's business units. Where relevant, key information was sourced from Enbridge's 2011 Annual Report. Enbridge's internal auditors reviewed the statistics associated with Enbridge's energy consumption, greenhouse gas emissions, and spills and releases, health and safety performance and human resources statistics.

# **GOVERNANCE, COMMITMENTS AND ENGAGEMENT**

## **GOVERNANCE (ENBRIDGE INC.)**

Enbridge employs a variety of policies, programs and practices to manage corporate governance.

Enbridge Inc.'s common shares are listed on the Toronto Stock Exchange (TSX) and the New York Stock Exchange (NYSE). Both exchanges have corporate governance guidelines or rules that apply to entities listed on their respective exchanges. Canadian securities regulators and the U.S. Securities and Exchange Commission have enacted or propose to enact additional corporate governance requirements.

Enbridge complies with all corporate governance rules now applicable to it and intends to comply with any new or additional corporate governance standards that will apply to it in the future.

## **BOARD OF DIRECTORS**

Enbridge's Board of Directors functions independently of management and is accountable to its shareholders. With the retirement of Patrick D. Daniel as Director/President and CEO on September 30, 2012, Enbridge's Board of Directors comprises 12 Directors, 11 of whom are considered to be independent and one of whom, Al Monaco, serves as Enbridge's President and CEO.

The Enbridge Board of Directors is ultimately responsible for governance at Enbridge and for Enbridge's overall stewardship. The Board has full power to oversee Enbridge's business affairs and management, particularly in key areas such as governance, strategic planning, risk management, succession planning and corporate disclosure.

### ***The Board:***

- reviews and approves the strategic plan and provides guidance and monitors Enbridge's progress;
- monitors Enbridge's risk management programs and helps Enbridge identify principal risks;
- makes sure Enbridge has appropriate internal control and management systems in place to manage money, compliance and risk and that these systems are functioning appropriately;
- approves major projects, plans and initiatives that could materially affect Enbridge;
- approves all of Enbridge's major corporate communications policies, including Enbridge's corporate disclosure guidelines and all corporate disclosure documents; and
- appoints the CEO and other members of senior management, monitors senior management's performance and reviews the succession strategy for all senior management positions every year.

## **BOARD COMMITTEES**

Enbridge's Board has four standing committees:

***Audit, Finance & Risk Committee*** – The principal function of this committee is to review Enbridge's quarterly and annual financial statements and recommend their approval or otherwise to the Board. Committee members, who are required to possess financial knowledge and experience, are also responsible for recommending the appointment of Enbridge's external auditor and for compensating, retaining and overseeing the external auditor. The external auditors report directly to the committee. The committee also supervises internal audit functions and monitors disclosure in the financial statements, communicates directly with both internal and external auditors, has overview responsibility for management reporting on internal controls, and meets with external auditors and internal auditors independently of management to discuss, among other things, their qualifications, independence and objectivity. The committee also recommends the approval of news releases of financial results, reviews all financial information and financial statements, reviews the Management Discussion & Analysis section of Enbridge's quarterly and annual



financial reports and reviews the Annual Information Form. The committee also reviews the issue of equity or debt securities of Enbridge and oversees the filing of prospectuses or related documents with securities regulatory authorities.

The Audit, Finance & Risk Committee, together with the Board, also oversees an annual review of the principal risks to Enbridge, monitors Enbridge's risk management program and reviews risks in conjunction with internal and external auditors.

U.S. securities regulators also impose requirements on the functions of Enbridge's audit committee and Enbridge must comply with NYSE requirements for listed companies.

**Corporate Social Responsibility Committee** – The CSR Committee monitors and oversees recommendations with respect to human rights, stakeholder relations, community investment, and the environment, health and safety policies, practices and procedures of Enbridge and its subsidiaries. Included in its environment, health and safety mandate is the responsibility to: monitor and oversee recommendations regarding risk management guidelines; monitor practices and procedures followed in the conduct of operations to prevent injury to corporate and third-party persons and property, as well as to minimize any adverse impact; monitor and oversee policies, practices and procedures related to documentation of regulatory approvals, compliance and incidents; monitor and oversee emergency response planning and procedures; and review the communication methods used for applicable practices and procedures. The committee oversees an environmental risk management system, monitors its operation, and conducts regular site visits and orientation sessions to personally acquaint members of the committee and the Board with Enbridge's operating staff and facilities.

**Governance Committee** – The Governance Committee is mandated to be responsible for, and to make recommendations to, the Board concerning Enbridge's overall governance. Included in its mandate is the responsibility to define and review the mandates for the various Board committees, recommend the nomination of directors to Board committees, develop Enbridge's approach to governance issues, set corporate governance guidelines for the Board and assume responsibility for Enbridge's response to those guidelines.

The Governance Committee also has a process to monitor the quality of, and recommend changes to, the relationship between and among the Board, its committees and management, including the assessment of the performance of the Board as a whole and its committees, assessment of the Chair of the Board, as well as reviewing the contributions of individual directors.

One of the Governance Committee's objectives is to nominate a balanced mix of members to the Board who have the necessary experience and expertise to make a meaningful contribution in carrying out duties on behalf of the Board. The Governance Committee sets guidelines for recruiting new talent with criteria for relevant expertise, senior management experience or other qualifications, recognizing Enbridge's diversity goal of having more women and visible minorities on the Board.

The Governance Committee is also mandated to review and recommend to the Board the adequacy and form of remuneration of directors, and to ensure that the Board functions independently of management.

**Human Resources & Compensation Committee** – The Human Resources & Compensation Committee is responsible for reviewing and advising the Board on systems and effectiveness relating to employment, succession planning and remuneration of employees and officers.

The committee monitors the performance of senior management, oversees intellectual capital risk to ensure that management programs deal with succession planning and employee retention, and reports to the Board on organizational structure and succession planning matters. The committee reviews and monitors executive development programs, defines the Chief Executive Officer's responsibilities, and approves the Chief Executive Officer's objectives on an annual basis.

## **EXECUTIVE AND DIRECTOR COMPENSATION**

Enbridge has a pay-for-performance philosophy and compensation programs for senior management, including the executive team, that are aligned with corporate and shareholder interests.

To attract and retain top talent, target total compensation is set around the median of the competitive market and a significant portion of total direct compensation is dependent on actual performance measured against short- and long-term performance goals, as approved by the Board.

Short-term incentive compensation for senior management is based on company, business unit and individual performance. Effective in 2011, company performance is measured by an annual earnings per share (EPS) target, as this metric best reflects Enbridge's overall corporate performance on an annual basis. EPS features prominently in the company's quarterly results discussions with external stakeholders and it is a metric that is broadly accepted by

investment analysts and shareholders.

Business unit performance measures encompass a variety of metrics, including safety and system integrity. In addition, workplace health and safety and environmental performance are among the key performance indicators that the Human Resources & Compensation Committee of the Board reviews each year.

Longer-term incentives include performance-based components that create a strong linkage to earnings growth and share price appreciation.

Enbridge compensates its directors (other than the President and CEO) in accordance with its directors' compensation plan. The main objectives of that plan are to attract and retain the most qualified individuals to serve as directors, to compensate directors to reflect the risks and responsibilities they assume when serving on the Board and Board Committees, and to offer directors compensation that is competitive with other comparable public companies. A further objective is to align the interests of directors with those of Enbridge's shareholders.

Enbridge's directors' compensation plan is based on annual retainers, rather than pay-for-performance. Annual retainers are paid in order to meet the directors' compensation objectives and help ensure the directors are unbiased when making decisions and carrying out their duties. While directors may elect to receive the annual retainer in the form of cash, Enbridge shares or Deferred Share Units (DSUs), a minimum portion of the retainer must be received in the form of DSUs. The DSUs serve to align the directors' interests with those of shareholders as the monetary benefit parallels the benefits received by the shareholders and cannot be accessed until directors resign from the Board.

For more information on corporate governance practices at Enbridge Inc., please visit <http://www.enbridge.com/InvestorRelations/CorporateGovernance.aspx>. For information on governance practices associated with Enbridge Income Fund Holdings Inc., please visit <http://www.enbridgeincomefund.com/>; with Enbridge Energy Partners, please visit <http://www.enbridgepartners.com/EEP/>; and with Enbridge Energy Management, please visit <http://enbridgemanagement.com/EEQ/>.

## **COMMITMENTS TO EXTERNAL INITIATIVES**

### **United Nations Principle 15, the “Precautionary Approach.”**

With the goal of establishing a new and equitable global partnership through the creation of new levels of cooperation among states, societies and people, and recognizing the integral and interdependent nature of the Earth, the United Nations adopted 27 principles at its Conference on Environment and Development in Rio de Janeiro in June 1992. Among these was Principle 15, the “Precautionary Approach,” which states that:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

While Enbridge has not formally adopted the precautionary approach, the company has informally done so by developing renewable and alternative energy solutions—in the form of wind, solar and geothermal power, waste heat recovery and integrated fuel cell technology.

Enbridge has also committed to stabilizing its environmental footprint at January 2009 levels in the areas on which the company has the greatest impact: on the trees it removes, the natural habitat it permanently alters, and the energy it uses to power its operations.

To that end, in May 2009, Enbridge announced that it would commit to three “[Neutral Footprint](#)” goals. Enbridge will:

1. Plant a tree for every tree it removes to build new pipelines and facilities
2. Conserve an acre of land for every acre of natural habitat it permanently impacts
3. Generate a kilowatt of renewable power for every kilowatt of power its operations consume

In June 2011, Enbridge created a [Neutral Footprint dashboard](#), which shows where the company stands with regard to these three commitments. Enbridge updates the dashboard quarterly.

**Externally developed economic, environmental and social charters, principles, or other initiatives to which Enbridge subscribes or endorses.**

Enbridge recognizes 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, and in keeping with our commitment to transparency and CSR, in 2002, Enbridge adopted the Voluntary Principles on Security and Human Rights, which deals with responsible corporate action in conflict zones. We have incorporated these principles into our [Statement on Business Conduct](#).

In addition, in 2003, Enbridge became a signatory to the United Nations Global Compact and committed to following its principles. The Compact is an initiative that brings companies together with UN agencies, labour and civil society to support principles in the areas of human rights, labour and the environment. Enbridge has committed to support and advance the Global Compact's principles and to make them part of its strategy, culture and daily operations.

**Memberships in associations and advocacy organizations in which Enbridge has positions in governance bodies, participates in projects or committees, provides substantive funding, or views membership as strategic.**

Enbridge maintains membership or associate status in a number of associations and advocacy organizations, including:

- Alberta Chamber of Commerce
- Alberta Emerald Foundation
- American Association of Oil Pipelines
- American Gas Association
- American Petroleum Institute
- Association for Financial Professionals
- Atlantic Centre for Energy
- Business for Social Responsibility
- 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
- Conference Board of Canada
- Energy Council/Center for Environmental Energy Research
- Energy Council of Canada
- 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 Petroleum Council
- North Dakota Petroleum Council
- Northeast Gas Association
- Ontario Energy Association
- Petroleum Technology Alliance Canada
- Pipeline Research Council International
- Smart Commute Initiative (Toronto)
- Southern Gas Association
- Superior-Douglas Chamber of Commerce
- Texas Association of Business
- Texas Oil & Gas Association
- Texas Pipeline Association
- Texas Taxpayers and Research Association
- 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 (Joliet, IL)
- Wisconsin Manufacturers & Commerce
- Wisconsin Taxpayers Alliance

## ***STAKEHOLDER ENGAGEMENT***

To ensure that a variety of stakeholder views were incorporated into this report, Enbridge engaged the input of key employees (many of whom have direct access to various stakeholders) through the CSR Expert Reporting Groups that Enbridge formed in early 2009.

The mandate of the CSR Expert Reporting Groups is to serve as the main providers of information for Enbridge's CSR reports and to ensure the accuracy of the information provided. The Groups are also responsible for discussing issues associated with the information gathering process and for resolving these issues.

In 2008, we also contracted with Canadian Business for Social Responsibility (CBSR) to lead us through an exercise to help us identify our key stakeholders and to consult with them about Enbridge's CSR performance. CBSR is a business-led, non-profit CSR consultancy and peer-to-peer learning organization that counsels its members on how to improve CSR performance. Through this exercise, we determined that our stakeholders included:

- Associations and civil society groups
- Employees, contractors, unions, Board of Directors
- CSR rating organizations such as the Dow Jones Sustainability Index and Jantzi Research
- Customers (of Enbridge's pipeline and gas distribution businesses)
- Environmental and other non-governmental organizations
- Governments and government regulatory bodies in Canada and the U.S.
- Landowners

- Media
- Right-of-way communities, including Aboriginal and Native American communities
- Shareholders (retail and institutional investors)

As part of the exercise, CCSR interviewed representatives from the following stakeholder groups regarding their perceptions of Enbridge's 2007 CSR Report and of the company's CSR activities in general:

- Enbridge Board of Directors (CSR Committee)
- Saskatchewan Association of Pipeline Landowners Inc. (SAPL)
- Upstream customers (Nexen)
- National Energy Board
- London Benchmarking Group (LBG) Canada
- University of St. Michael's College
- Conference Board of Canada
- Pembina Institute

Enbridge's business units identify and select stakeholders with whom to engage by (a) defining the scope of a project and what impact it could have on other parties that have a direct correlation with the project's geographical vicinity/scope and (b) determining which regulatory bodies have jurisdiction over any proposed projects and what are the regulatory requirements for notification.

When identifying stakeholders with whom to engage in a given project, Enbridge aims to meet or exceed regulatory requirements regarding public consultation. We also aim to be open and transparent in our communication to stakeholders.

Enbridge engages stakeholders proactively and on an ongoing basis.

The company engages certain stakeholders (e.g. landowners, Aboriginal communities) early in the project planning process to ensure specific concerns are addressed so that the company can effectively address and resolve issues and adjust plans wherever necessary. These same stakeholders are often formally engaged later on during the regulatory review process.

Communication with stakeholders continues throughout the project cycle (regulatory review to construction to operation) in order to inform stakeholders and identify opportunities and issues.

Enbridge engages key stakeholders who live along our existing rights-of-way or close to an Enbridge renewable energy facility in both Canada and the U.S. through our Public Awareness Program. In all our stakeholder engagement efforts, including those aimed at Enbridge Gas Distribution customers, we utilize a full range of communication channels, including:

- Direct-mail brochures and letters
- Websites, with specific pages for projects, pipeline public awareness and safety, pipeline integrity, community investment and more
- A sustainability blog for employees
- Social media sites, including Facebook, Twitter and YouTube
- Toll-free telephone information lines
- Advertising
- News releases and media briefings
- Exhibits
- Videos
- Public meetings/open houses and face-to-face meetings with public officials
- Tours
- Community sponsorships and support from Enbridge employees for community events
- Emergency responder exercises
- Outreach programs to excavators

Through our stakeholder engagement activities, Enbridge addresses a broad range of topics and responds to a variety of questions and concerns, including:

- The relevance and importance of CSR in relation to Enbridge's core values (Integrity. Safety. Respect.)
- Construction timelines
- Impact of construction on communities
- Economic opportunities and benefits and compensation
- Environmental impacts of construction and environmental protection measures
- Potential impacts of a project on Aboriginal rights
- Emergency response and safety procedures
- Post-construction pipeline integrity maintenance and right-of-way restoration and maintenance

In the U.S., Enbridge is involved in the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) Pipelines and Informed Planning Alliance program, which is a multi-stakeholder consensus effort to develop best practices for development near pipelines and for assuring that those who host pipelines on their property understand how those pipelines are operated and what pipeline companies do to protect their near neighbours.

# ***OVERALL MANAGEMENT APPROACH TO CORPORATE SOCIAL RESPONSIBILITY***

Enbridge defines CSR as conducting business in a socially responsible and ethical way; protecting the environment and the health and safety of people; supporting human rights; and engaging, respecting and supporting the communities and cultures close to the company's operations.

## ***CSR POLICIES AND VALUES STATEMENT***

Enbridge has adopted a [Corporate Social Responsibility Policy](#) that covers business ethics and transparency; environment, health and safety; stakeholder relations; employee relations; human rights; and community investment. This policy applies to activities undertaken anywhere in the world by, or on behalf of, Enbridge and our subsidiaries and affiliates, whose operations we manage.

Enbridge also conducts business in accordance with our [Statement on Business Conduct](#), which outlines our commitment to specific standards of conduct expected of our directors, officers, employees, consultants and contractors in all countries in which Enbridge conducts business. As well, a variety of other policies and related documents provide direction for specific activities that pertain to CSR. They are:

- [Environment, Health and Safety Policy](#)
- [Aboriginal and Native American Policy](#)
- [Climate Change Policy](#)
- [Voluntary Principles on Security and Human Rights](#)
- [Community Investment Program Criteria and Guidelines](#)

### **Enbridge Values**

Enbridge is building on our foundation of operating excellence by adhering to a strong set of core values—integrity, safety and respect—that reflect what is truly important to us as a company as we interact with communities, the environment, and each other. These values represent a constant guide by which we make our decisions, as a company and as individual employees, every day.

We convey Enbridge's values succinctly and effectively to employees so that they understand what it means to work for Enbridge and how we expect all employees to act when faced with decisions or choices. For new employees, our values provide a strong, clear and simple set of principles to help them integrate into the organization.

Enbridge's value statement is: Enbridge employees demonstrate Integrity, Safety and Respect in support of our Communities, the Environment and Each Other.

## ***HUMAN RIGHTS***

Enbridge believes that we must consistently and rigorously uphold the highest standards of human rights in all of our work.

To that end, we thoroughly assess potential social, economic and environmental impacts of all of our projects through socio-economic and environmental studies during which we consider:

- The biophysical elements of the terrestrial and marine environment, including key receptors that could potentially be affected
- The project's economic impacts, including its effects on the national, provincial and regional economy
- Aboriginal rights and interests, including the current use of lands and resources for traditional purposes by Aboriginal persons
- The safety of project workers, and the safety of the communities in which the project would operate
- Potential human health impacts, including changes in the natural environment that could affect the physical health of people

In evaluating these various areas of human rights, we view them from the perspective of our [Corporate Social Responsibility Policy](#), to which we are ethically and morally bound. Under this policy:

- Enbridge recognizes that governments have the primary responsibility to promote and protect human rights, and that we will work with governments and agencies to support and respect human rights within our sphere of influence
- Enbridge will not tolerate human rights abuses, and will not engage or be complicit in any activity that solicits or encourages human rights abuse
- Enbridge will always strive to build trust, deliver mutual advantage and demonstrate respect for human dignity and rights in all relationships it enters into, including respect for cultures, customs and values of individuals and groups
- In addition, in assessing the various areas of human rights, we look at them through the lens of our status as a signatory to the [United Nations Global Compact](#), and of our adoption of the [Voluntary Principles on Security and Human Rights](#)

The UN Global Compact is an initiative that brings companies together with UN agencies, labour and civil society to support principles in the areas of human rights, labour and the environment. In 2003, Enbridge committed to supporting and advancing the Global Compact's principles and to making them part of our strategy, culture and daily operations.

The Voluntary Principles on Security and Human Rights pertain to responsible corporate action in conflict zones. Enbridge adopted these principles in 2002, and we have incorporated them into our [Statement on Business Conduct](#).

## **COMPLIANCE AND ETHICS (PRINCIPLE 10 OF UN GLOBAL COMPACT)**

Enbridge is committed to working against corruption in all forms, including extortion and bribery. Enbridge's commitment in this regard is derived from one of its core values, *Integrity*.

The value of integrity is embodied in Enbridge's [Statement on Business Conduct](#), which requires employees to make decisions and conduct Enbridge's business in a responsible, honest and ethical manner. Enbridge's Statement on Business Conduct and [Whistleblower Policy](#) require employees to report (either directly or anonymously) any fraudulent activities or potential or actual events that are non-compliant with applicable legal requirements or Enbridge policies. Additionally, Enbridge has established a Compliance Policy that defines clear responsibilities for Enbridge's Vice President & Chief Compliance Officer and the respective business unit compliance officers. Enbridge's compliance officers are charged with overseeing Enbridge's Compliance Program, which is designed to minimize unethical behavior and support and demonstrate Enbridge's commitment to corporate responsibility and good governance.

As part of its Compliance Program, Enbridge undertakes a number of best practices to monitor and improve upon its compliance and ethics culture:

**1. Policies** – Enbridge has established a number of governance policies that are designed to ensure its employees conduct their work activities in accordance with applicable laws. These policies include the [Statement on Business Conduct](#), the [Whistleblower Policy](#) and the Compliance Policy.

**2. [Enbridge Ethics & Conduct Hotline](#)** – Enbridge provides information that is readily available to all employees and contract workers describing the avenues available to raise any ethical or compliance issues directly to the responsible



Compliance Officers or other managers. Additionally, Enbridge maintains an Ethics & Conduct Hotline (the Hotline) where such issues can be raised anonymously through a third-party provider, 24 hours a day, 365 days of the year. Each report received through the Hotline is provided directly to Enbridge's Vice President & Chief Compliance Officer, as well as the responsible business-unit compliance officer, and is investigated to address and resolve any issues raised in the report. In 2011, Enbridge received 34 new hotline reports, of which nine related to human resources issues, 15 related to allegations of misappropriation or misuse of assets, three related to safety issues, two related to financial concerns and five related to customer concerns or complaints.

**3. Tone At the Top** – While Enbridge has had a Chief Compliance Officer and three compliance officers in its primary functional business units since 2009, in early 2012 Enbridge made a change to its management structure that demonstrates an even greater emphasis on compliance and ethics. On April 1, 2012, Enbridge appointed its first stand-alone Vice President & Chief Compliance Officer, whose role is solely dedicated to the oversight of Enbridge's overall state of compliance and enhancing Enbridge's culture of ethics and integrity.

**4. Audit** – In 2011, the role of Enbridge's Audit Services Department was expanded to cover all operational and financial audits. The Audit Services Department plays a key role in monitoring Enbridge's state of compliance and assisting with investigations into any unethical conduct, including allegations of bribery, fraud and corruption. The Audit Services Department is also charged with measuring the administration and effectiveness of the Compliance Program, including the effectiveness and accuracy of internal compliance reporting.

**5. Training** – In 2011, all Enbridge employees received online training in relation to the [Statement on Business Conduct](#). Other training varies by business unit, but considerable training was provided to employees in 2011 and is continuing in 2012 in relation to Fraud Awareness, Ethics for People Leaders, Respectful Workplace and anti-corruption laws. In the Liquids Pipelines business unit, 45 employees with compliance functions were brought together for a full day Compliance Summit to discuss current compliance processes and issues.

**6. Compliance Investigations and Reports** – Enbridge's compliance officers coordinate investigations of material compliance matters, whether they arise directly from employees, through an incident or via the Hotline. All material non-compliance matters are reported by the Vice President & Chief Compliance Officer to the Audit, Finance & Risk Committee of Enbridge's Board of Directors. Additionally, Enbridge has employees with expertise in relation to audits and investigations who are available to assist the company's compliance officers with any investigations into material non-compliance issues.

**7. Non-Retaliation** – Enbridge is committed to the principle that no retaliatory action may be taken against anyone who raises non-compliance issues in good faith. Adhering to the non-retaliation principle is a key component of a strong culture of compliance and it also ensures that employees, contract workers and the public can feel confident that issues will be fairly and impartially reviewed and addressed.

**8. Metrics** – Although metrics vary from one business unit to another, Enbridge's Liquids Pipelines business unit maintains a compliance index metric that ties ethical and compliant conduct to each employee's business unit bonus incentives, which acts as a continuous reminder to employees of the importance placed on ethical behavior.

**9. Anti-Corruption & Compliance/Ethics Affiliations** – Enbridge's compliance officers and other employees participate in a number of organizations that provide training and promote the advancement of ethical conduct in organizations throughout North America. Some of the organizations to which Enbridge or its employees belong include: Society of Corporate Compliance & Ethics (SCCE), Open Compliance & Ethics Group (OCEG), Association of Certified Fraud Examiners (ACFE) and the Corporate Ethics Management Council (Conference Board of Canada).

## **INNOVATION**

As part of our CSR commitment, Enbridge believes that it is our responsibility to be continuously innovative. As the operator of one of the world's largest and most complex energy delivery systems, our job is to deliver the energy North Americans need in the safest, most reliable and most efficient way possible. And, as a company that delivers such an important commodity—energy—we must continually search for innovative ideas and new approaches, both for our existing pipeline business, through innovative approaches to leak detection and prevention, and for the business we are building for the future.

### **Innovative approaches to leak detection and prevention**

We know that moving hydrocarbons will be our core business for a long time to come. Given this reality, we are

committed to continuous improvements to the safety and integrity of our system, and to achieving the goal of zero incidents. To achieve this goal, in addition to our ongoing safety and system integrity improvements, we actively seek out world-class leak detection and risk mitigation technologies in which to invest, and which we can apply to our operations. As part of this work, we:

- Collaborate with universities, private companies and multi-national corporations to support research
- Plan and conduct field trials with industry
- Identify emerging, pre-commercial leak prevention and detection technologies
- Invest in companies to help them commercialize promising new technologies

In the area of collaborating with universities, private companies and multi-national corporations to support research, we provide research funding and in-kind support. For example, we are reviewing 20 proposals from Alberta universities and major international research corporations aimed at developing radical new technologies to help attain continuous, real-time leak detection for even the smallest of leaks. These proposals range from a University of Alberta research project engaged in exploring the use of unmanned aerial vehicles (UAVs) to detect leaks over our pipeline rights-of-way to the development of tiny nanosensor networks that would be affixed to pipelines and that would detect even minute hydrocarbon releases instantaneously.

With respect to planning and conducting field trials with industry, we are working with NYSEARCH, a natural gas research, development and demonstration organization headquartered in New York City. Through Enbridge Gas Distribution, Enbridge is a member of NYSEARCH, and is participating in a field trial that involves Picarro, a Silicon Valley-based company that has developed an ultra-high sensitivity gas “sniffer” that can be mounted on a vehicle and driven around to monitor for gas leaks. The “sniffer” would augment foot patrols and could reduce the time it takes to survey a pipeline right-of-way for leaks.

Another of our field trials involves working with Synodon, an Edmonton-based company that uses a technology that was used on NASA's Terra Polar orbiting satellite. Synodon has adapted the technology for leak detection applications, and is currently testing the technology.

From June 18 to 21, 2012, the two companies mentioned above—Picarro and Synodon—joined Enbridge, Pipeline Research Council International (PRCI), and several other participating companies—Pergam Technical Services, LaSen and New Era Technology—in Mineral Wells, Texas, to test a number of advanced aerial leak detection methods for pipelines. Each company possesses different abilities, and each put their particular technology to the test to determine how they could offer the most sensitive and accurate form of leak detection.

Enbridge and the PRCI ranked each of the technologies based on their ability to detect leaks and determine a leak's concentration and location. A final report is expected to be ready at the end of October 2012. Based on the report's findings, Enbridge will determine how best to improve our leak detection abilities.

In the area of identifying emerging, pre-commercial leak prevention and early detection technologies, Enbridge has been investigating other possible leak detection technologies, including fibre optics, micro electromagnetic sensors and vapour sensing tools.

And we've been investing in various companies to help enable them to commercialize promising new technologies. In August 2012, we invested C\$1.5 million in Syscor Controls & Automation Inc., a small Victoria, B.C.-based company, to help it develop a gas sensing technology for use on above-ground storage tanks (ASTs). Enbridge hopes to use Syscor's technology as a tool to help us identify leaks in our ASTs. Once its technology has been refined, Syscor will make it available to all interested companies, helping to improve the entire oil and gas industry.

### **Innovative approaches to building our future business**

For Enbridge to be a thriving organization in the future, we know that we have to become a leader in renewable and alternative energy generation. To that end, we have been investing heavily in renewable energy. In a matter of 12 years, the value of our renewable power assets have grown to about \$3 billion.

The majority of our renewable and alternative energy investments are in wind and solar energy projects in various locations throughout North America. Together, Enbridge's portion of the wind and solar energy assets in which we have interests have the capacity to produce about 960 megawatts of clean electricity.

But we also invest in other technologies, projects and companies that will contribute to a cleaner energy future. These technologies, projects and companies range from our investments in Morgan Solar (a Canadian start-up that is working on next-generation solar technology) and Hydrogenics (a small company working on developing large-scale renewable electricity storage), to our involvement in geothermal and run-of-river hydro projects.

## **NEUTRAL FOOTPRINT COMMITMENTS**

As part of our ongoing efforts to find innovative ways to improve our business, we have pledged to stabilize our initial footprint through the following "[Neutral Footprint](#)" commitments:

- We will plant a tree for every tree we remove to build new facilities.
- We will conserve an acre of land for every acre of wilderness we permanently impact.
- We will generate a kilowatt of renewable energy for every kilowatt our operations consume.

These commitments were designed to reduce our environmental impact where it is felt most: on the trees we remove, the natural habitat we permanently impact and the energy we consume to power our operations. So far, we have met almost 70 per cent of our "tree for tree" commitment; over 300 per cent of our "acre for acre" commitment; and about 115 per cent of our "kilowatt for kilowatt" commitment (based on our forecasted growth in power consumption to 2015).

By meeting these commitments, Enbridge will stabilize our environmental footprint at January 2009 levels.

## **ENTERPRISE SECURITY**

### **Security Management Standard**

To meet the requirements of the United States Transportation Security Administration (TSA) *Pipeline Security Guidelines* adopted in December 2010, and the Canadian Standards Association *Z246.1-09 Security management for the petroleum and natural gas industry systems* (September 2009), Enbridge's Enterprise Security group has developed a Security Management Standard. This Standard applies to all onshore transmission and distribution pipeline assets for both natural gas and liquids. The Standard brings a risk-based approach to the application of security measures throughout the company and provides criteria that business units use to assess security risks to their personnel and facilities. In addition, it establishes baseline security risk reduction measures that should be implemented at each facility—commensurate to the identified risk.

Enterprise Security provides oversight to the company's business units in the development of their business-specific security programs and policies and in the conduct of physical security assessments of their operations and facilities. In addition, Enterprise Security acts as the enterprise-wide security liaison for enforcement and regulatory agencies in Canada and the U.S. and participates on behalf of the enterprise in various industry and federal government-sponsored security committees and security advisory groups in Canada and the U.S.

### **Foreign Travel Protection Policy**

While traveling to, within or from countries other than Canada and the United States for business purposes, Enbridge employees and contractors may be exposed to greater risks to their personal security. The purpose of the Foreign Travel Protection Policy is to reduce the exposure to personal security risks potentially faced by employees and contractors while traveling to a foreign country on Enbridge business. The policy considers the security of personnel and provides a mechanism by which information can be delivered to the employee about issues affecting their security.

Enterprise Security's responsibilities under this policy include ensuring employees receive the appropriate and necessary pre-departure briefings, facilitation of the requisite security arrangements when necessary, as well as the debriefing of the traveler following travel, as required. The Expatriate Protection Policy mandates that employees and family members be made aware of the security issues that may affect their personal security while residing and working in a foreign country and further, was designed to reduce their exposure to personal security risks. As determined by Enterprise Security, the expatriate employee and family may be subject to additional country-specific security requirements dependent on the location of their assignment.

## **ENBRIDGE'S 2012 CSR REPORT**

The following three sections of this report focus on Enbridge's Economic, Environmental and Social Performance. The Social section is further divided into Labour Practices and Decent Work, Human Rights, Society and Product

Responsibility. Each of the main three sections includes a scorecard highlighting Enbridge's goals, targets and performance in key areas deemed to be of high stakeholder interest and high business impact, as well as information pertaining to the Performance Indicators prescribed by the [Global Reporting Initiative](#) (GRI) G3.1 Sustainability Reporting Guidelines.

# ***ECONOMIC PERFORMANCE***

NOTE: Throughout this Economic Performance chapter, 2010 financial results have been adjusted to account for the 2-for-1 stock split in May 2011

## ***CSR IS INTEGRAL TO HOW WE RUN OUR BUSINESS AND IS AT THE HEART OF OUR ECONOMIC SUCCESS.***

Society needs a secure and reliable supply of energy. We need energy to heat and light our homes, businesses, schools and hospitals. We need energy to move people, goods and information. Energy literally drives economies around the world.

This is where Enbridge fits in.

Enbridge's number one social responsibility is to deliver the energy North Americans need—crude oil and refined products, natural gas, environmentally responsible power—in the safest, most reliable and most efficient way possible.

We transport and deliver this energy through our infrastructure, connecting vital sources of supply with refiners and consumers across the North American continent. In doing so, we're playing a key role in the delivery of secure and reliable energy that supports economic stability and growth.

Enbridge's existing infrastructure extends throughout Canada and the United States. We operate the world's longest, most complex crude oil and liquids pipeline system, shipping more than two million barrels of crude oil and petroleum products every day; and in 2011, we successfully entered the power transmission business.

The company's natural gas gathering and transmission system spans the continent, from northern British Columbia to the ultra-deep water of the Gulf of Mexico, moving over six billion cubic feet of gas daily.

We also deliver clean-burning natural gas to consumers through Canada's largest natural gas distribution company, Enbridge Gas Distribution (EGD), which serves nearly two million customers and is adding approximately 35,000 new customers every year. EGD has been delivering energy to consumers for over 160 years.

We're also investing in renewable energy and alternative technologies to support society's desire for a lower impact energy future. We now have interests in close to 1,000 MW of renewable and alternative energy projects—eight wind farms, four solar farms, a geothermal facility, four waste heat recovery facilities, and a fuel cell power plant—that provide a broad platform from which to grow.

For Enbridge, CSR is also about ensuring the company's financial strength. Enbridge's future growth is predictable. The steady growth of our liquids pipelines, natural gas transportation and distribution, and renewable and alternative energy businesses have and will continue to drive strong earnings growth and even more significant cash flow growth in coming years. The company brought over \$10 billion in projects into service in 2009 and 2010, as at year end 2011 had over \$13 billion of capital to deploy on commercially secured projects in the 2011-2015 period, and had over \$30 billion of additional projects under development. The secured projects provide the company with confidence in being able to achieve a 10 per cent average annual growth rate of adjusted earnings per share from 2010 through the middle of this decade.

Over the past 10 years, Enbridge's total shareholder return (TSR) has increased on average 17 per cent and the company is focused on maintaining this strong track record. In 2011 alone, our TSR reached 40 per cent, paying dividends of \$0.98 a share, or a total of \$759 million to Enbridge Inc. shareholders.

Enbridge also delivers significant and quantifiable direct economic benefits to employees

in the form of compensation, to communities in the form of donations and other investments, to governments in the form of taxes, and to customers in the form of access to markets and enhanced services.

Enbridge invests significantly in hundreds of charitable, non-profit and community organizations every year with the aim of building sustainable communities across our operating regions in Canada and the United States. We believe these investments—in 2011, they reached \$13 million—are an essential part of being a good neighbour and are a contributing factor in maintaining the company's social license to operate.

**GOALS AND PERFORMANCE**

<b>Economic Scorecard Results</b>			
<b>Objectives</b>	<b>2011 Results</b>	<b>2010 Results</b>	<b>Challenges</b>
1. Deliver superior long-term value to Enbridge shareholders as measured by Total Shareholder Return (TSR)	40% TSR in 2011 (for more details, please see Part 1 of the Economic Scorecard Commentary below)	20% TSR (for more details, please see the 2011 CSR report)	Enbridge's value proposition is based on maintaining a reliable business model. However, Enbridge's business activities are subject to various risks. For details about Enbridge's risk profile, please see the section titled "Risks" below, as well as GRI Performance Indicator section "EC2." For additional details on Enbridge's risk management practices and principal risks, please see the Risk Management section of Enbridge Inc.'s 2011 Annual Report.
2. Demonstrate high-quality and sustainable earnings per share growth	11% growth to \$1.48 in adjusted earnings per common share (for more details, please see Part 2 of the Economic Scorecard Commentary below)	13% growth to \$1.33 in adjusted earnings per common share (for more details, please see the 2011 CSR Report)	
3. Payout a high proportion of earnings in the form of a growing dividend stream to Enbridge shareholders	\$0.98 per common share, an increase of 15% from 2010 (for more details, please see Part 3 of the Economic Scorecard Commentary below)	\$0.85 per common share, up 15% from 2009 (for more details, please see the 2011 CSR Report)	
4. Establish a long-term track record of growth in supporting the communities in which Enbridge operates	Invested \$13.0 million in more than 550 charitable, non-profit and community organizations (for more details, please see Part 4 of the Economic Scorecard Commentary below)	Invested \$11.5 million in more than 350 charitable, non-profit and community organizations (for more details, please see the 2011 CSR Report)	

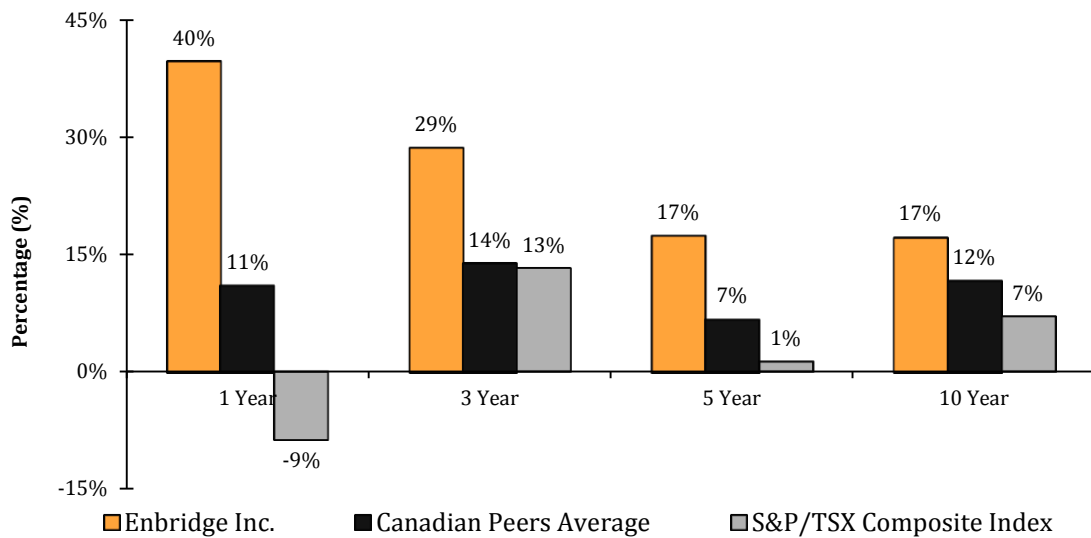
## ECONOMIC SCORECARD COMMENTARY – 2011

### 1. DELIVER SUPERIOR LONG-TERM VALUE TO ENBRIDGE SHAREHOLDERS AS MEASURED BY TOTAL SHAREHOLDER RETURN (TSR)<sup>1</sup>.

During 2011, Enbridge achieved a solid 40 per cent TSR as a result of the company's continued growth prospects, increasing dividend, and its lower risk profile when compared to its Peer Group<sup>2</sup> and the broader market index. Enbridge's Peer Group averaged a TSR performance of 11 per cent during 2011, while the TSX index actually lost ground during 2011. Further, over a longer term horizon (three, five and 10 years), Enbridge has consistently outperformed both the TSX index and the Peer Group as indicated in the chart below.

#### TOTAL SHAREHOLDER RETURN – TSX

As at December 31, 2011



<sup>1</sup> Total Shareholder Return: the total return of a stock to an investor that includes both capital gains and re-invested dividends.

<sup>2</sup> Peer Group: Canadian Utilities, Fortis, TransCanada, TransAlta and Emera.



## 2. DEMONSTRATE HIGH-QUALITY AND SUSTAINABLE EARNINGS PER SHARE GROWTH.

The diversity of Enbridge's businesses and strategic positioning of its assets contribute to the reliability of the company's growth. Adjusted earnings<sup>3</sup> per share (EPS) grew 11 per cent in 2011, and are expected to grow by 10+ per cent per year on average through the middle of the decade. In addition, Enbridge's track record for EPS growth over the last decade has averaged close to 10 per cent per year as indicated in the chart below.

### 10-YEAR ADJUSTED EARNINGS PER SHARE GROWTH



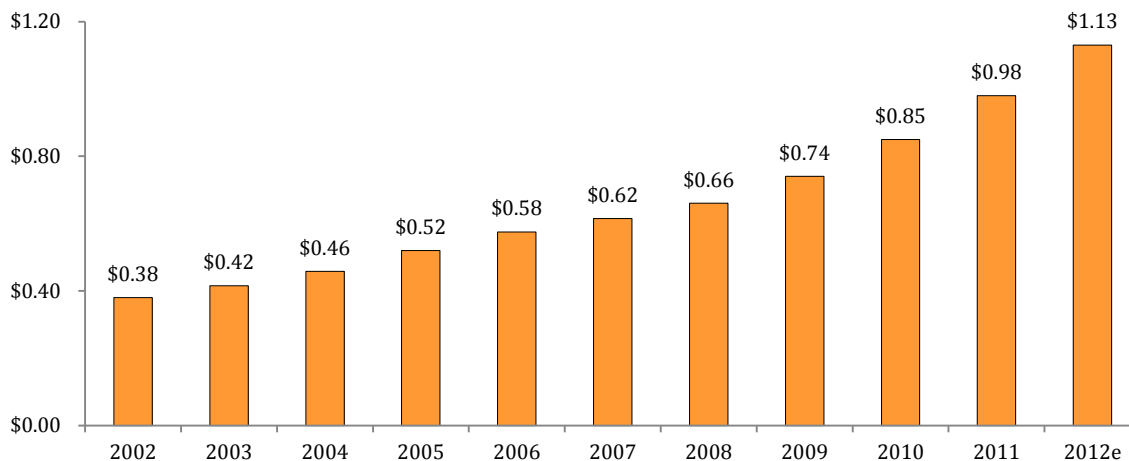
\*2012 earnings per share guidance range: \$1.58 to \$1.74 (prepared under US GAAP).

- Adjusted Earnings: This document contains references to adjusted earnings/(loss), which represent earnings or loss applicable to common shareholders adjusted for non-recurring or non-operating factors on both a consolidated and segmented basis. Management believes that the presentation of adjusted earnings/(loss) provides useful information to investors and shareholders as it provides increased transparency and predictive value. Management uses adjusted earnings/(loss) to set targets, assess performance of the company and set the company's dividend payout target. Adjusted earnings/(loss) and adjusted earnings/(loss) for each of the segments are not measures that have a standardized meaning prescribed by Canadian GAAP and are not considered GAAP measures; therefore, these measures may not be comparable with similar measures presented by other issuers. See the Non-GAAP Reconciliations section on page 76 of the [2011 year end Management Discussion & Analysis](#) for a reconciliation of the GAAP and non-GAAP measures.

**3. PAYOUT A HIGH PROPORTION OF EARNINGS IN THE FORM OF A GROWING DIVIDEND STREAM TO ENBRIDGE SHAREHOLDERS.**

Enbridge's record in this category is unmatched in its sector. The 15 per cent dividend increase the company announced in December 2011 was its 17th consecutive annual increase. Over the last decade, Enbridge's dividend growth has significantly outperformed that of its peers and the company is focused on continuing this performance. It is expected that dividend growth will track or exceed earnings growth through the middle of the decade.

**10-YEAR HISTORICAL DIVIDEND PER SHARE GROWTH**



**4. ESTABLISH A LONG-TERM TRACK RECORD OF GROWTH IN SUPPORTING THE COMMUNITIES IN WHICH ENBRIDGE OPERATES.**

In 2011, Enbridge invested \$13 million in charities, non-profit and community organizations. This investment amount is growing with corporate earnings, and represents approximately 1 per cent of Enbridge's profits.

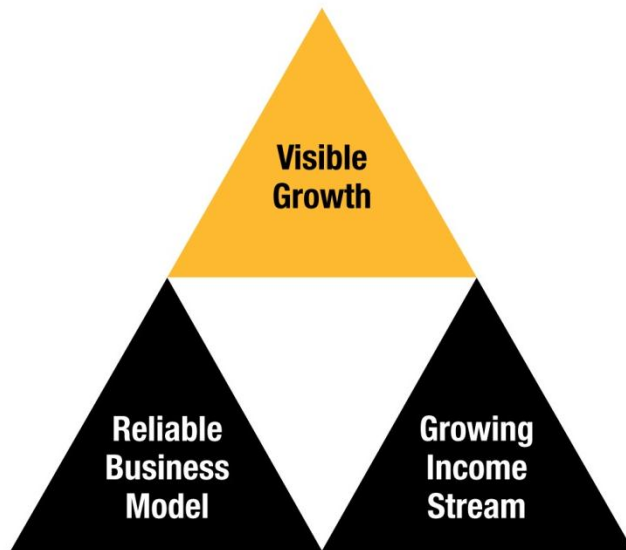
**10-YEAR HISTORICAL COMMUNITY INVESTMENT (\$ MILLIONS)**



## **CORPORATE STRATEGY**

### **Enbridge's Investment Proposition**

Enbridge's unique investment proposition is based on an overarching strategy that brings together three desirable characteristics: Growth, Income and Reliability.



This combination has served the company and its shareholders well. Enbridge's long history of successfully implementing this strategy is evidenced by its sector leading total shareholder return, whether measured on a one-year, 10-year or even a 55-year basis.

Enbridge expects to continue to build on its strong track record of growth through the middle of this decade, with a full slate of potential investment opportunities that fit within the reliable business model that the company's investors have come to count on.

## 1. VISIBLE GROWTH

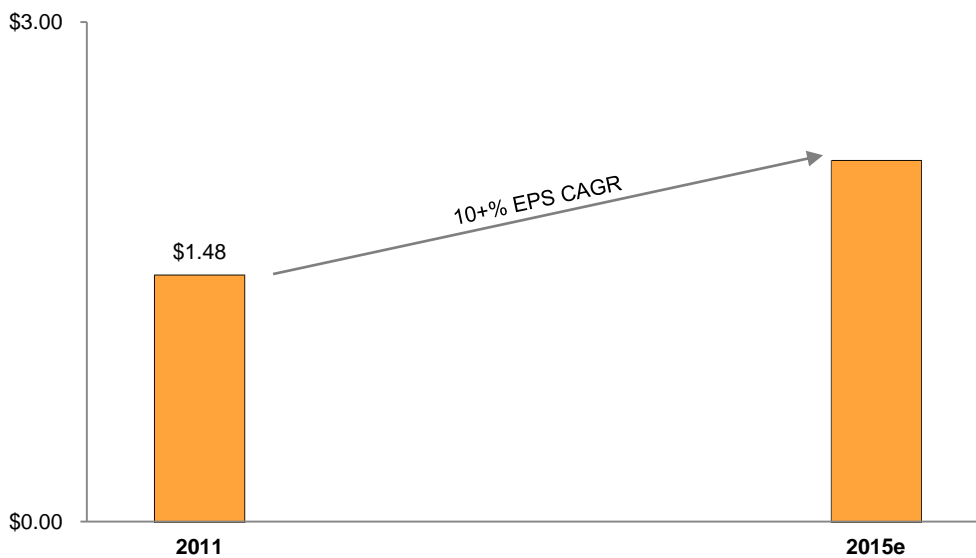
Enbridge's growth is driven by the ongoing need for new energy infrastructure development. In 2011 alone, Enbridge secured \$8 billion in new growth projects across its business units. At year-end, Enbridge had \$13 billion in secured growth projects, all of which are expected to be in service by 2015.

As a result of these new projects, earnings per share have grown steadily over time at an attractive rate. Further, given Enbridge's secured project inventory, we are very confident in achieving a 10+ per cent annual average adjusted EPS growth rate through 2015.

### Earnings Growth

- 25 per cent EPS growth in 2009
- 13 per cent EPS growth in 2010
- 11 per cent EPS growth in 2011

### LONG-TERM EARNINGS PER SHARE GROWTH



CAGR: Compound Annual Growth Rate

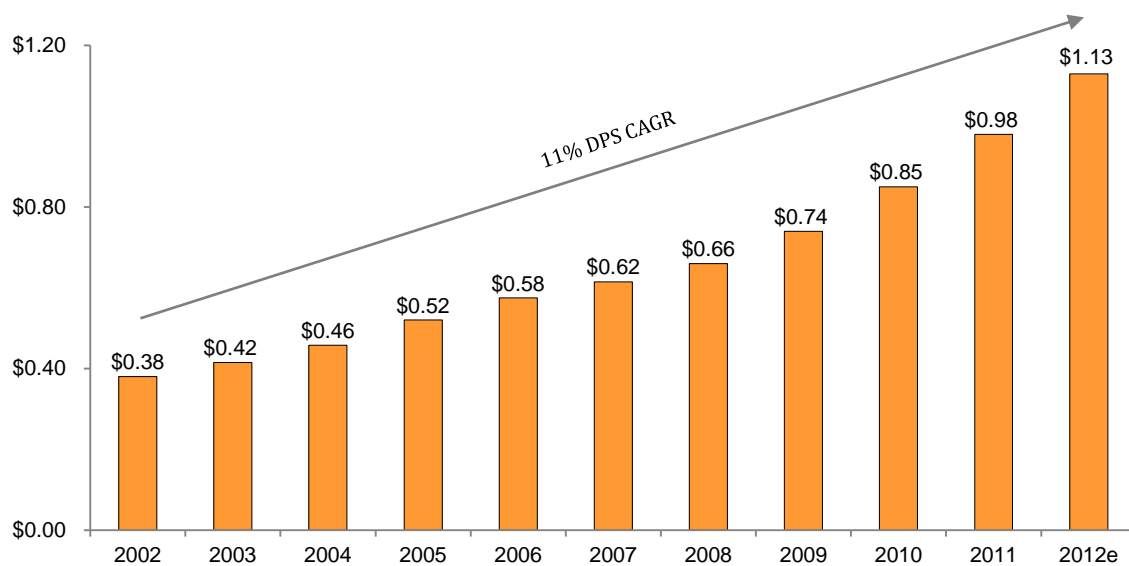
Along with higher EPS, the company's healthy slate of growth projects is expected to drive an even greater growth in its cash flows. Enbridge's ability to generate free cash flow adds further value to its shareholders by providing funding flexibility as well as opportunity for additional distribution increases.

## 2. GROWING INCOME STREAM

At no point in Enbridge's long history has it ever decreased its dividend payment. In fact, the dividend has been increased each of the last 17 years, and over the past decade the dividend has grown on average by 11 per cent. The dividend provides an attractive yield to the investor, and given the expected growth in earnings and free cash flow, Enbridge expects to continue to grow the dividend through the middle of the decade.

- 15 per cent dividend increase in 2010, 2011 and 2012
- Expected continued dividend growth in line with, or exceeding, earnings (10+ per cent per year)

### DIVIDEND PER SHARE GROWTH 2002 – 2012e



DPS CAGR: Dividend per Share Compound Annual Growth Rate

### 3. RELIABLE BUSINESS MODEL

Enbridge looks to consistently structure its business to reliably deliver steady, visible and predictable results. This is evidenced in its contractual arrangements, its risk management frameworks, and its overall philosophy and approach to business. As a result, Enbridge's business model produces adjusted earnings you can count on.

- 90+ per cent of the company's revenues are generated from investment grade counterparties
- Less than 5 per cent of Enbridge's earnings are exposed to commodity price, interest rate and foreign exchange risks

For more information on Enbridge's corporate strategy, industry fundamentals, growth projects, risk management practices and company performance, please see the company's [2011 year-end Management Discussion and Analysis](#).

## ECONOMIC PERFORMANCE INDICATORS

### ECONOMIC PERFORMANCE

#### EC1

*Direct economic value generated and distributed, including revenues, operating costs, employee compensation, donations and other community investments, retained earnings, and payments to capital providers and governments.*

#### SUMMARY TABLE OF DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED

Enbridge Inc.	2011 (\$million)	2010 (\$million)	2009 (\$million)
Revenues	19,402	15,127	12,466
Commodity costs	14,854	11,291	9,011
Operating and administrative expenses	1,720	1,466	1,430
Adjusted earnings <sup>1</sup>	1,110	984	855
Payments to shareholders <sup>2</sup>	759	648	555
Payments to lenders <sup>3</sup>	749	711	656
Total compensation <sup>4</sup>	935	813	786
Donations and other community investments <sup>5</sup>	13	11.5	10
Payments to governments <sup>6</sup>	100	233	325

1. Adjusted earnings is a non-GAAP measure representing earnings attributable to common shareholders adjusted for non-recurring factors.

2. Includes cash dividends and dividends reinvested through the Common Share Dividend Reinvestment and Share Purchase Plan.

3. Includes total interest payments on debt during the year net of capitalized interest.

4. Includes amounts for annual payroll, annual incentive rewards, employee benefits, employee training and development, and employee relocations. At December 31, 2011, Enbridge had 6,922 permanent employees.

5. Includes investments in charitable and not-for-profit organizations.

6. Includes property taxes, business taxes, provincial capital taxes and income taxes paid.

For information pertaining to Enbridge Income Fund Holdings Inc., please visit <http://www.enbridgeincomefund.com/>; to Enbridge Energy Partners, please visit <http://enbridgepartners.com/EEP/>; and to Enbridge Energy Management, please visit <http://enbridgemanagement.com/EEQ/>.

## **DISCUSSION ON DIRECT STAKEHOLDER ECONOMIC VALUE ADDED**

In helping to satisfy society's need for secure supplies of energy through Enbridge's core business of transporting natural gas and petroleum products, the company's activities provide a significant and quantifiable direct economic benefit to a broad group of stakeholders.

### **Shareholders / Lenders**

Enbridge Inc. shareholders realize returns through a combination of capital appreciation and dividends. 2011 was another strong year for Enbridge Inc. share price performance on the Toronto Stock Exchange. Investors holding Enbridge Inc. stock for the entire year realized share price appreciation of 35 per cent. As a result, Enbridge's overall market value increased by \$8 billion to \$30 billion. Furthermore, in 2011, Enbridge paid dividends of \$0.98/common share or a total of \$759 million to Enbridge Inc. shareholders. The combination of compounding dividends and capital gains equated to a total shareholder return of 40 per cent in 2011.

Ongoing support for Enbridge's share price comes in part from indices that provide business rankings based on information about the social, ethical and environmental policies and practices of organizations. These indices are based on the concept that a company's commitment to CSR will sustain and grow long-term shareholder value. As a result, a certain segment of investors choose to direct their investments towards these companies. During the past several years, Enbridge has been included in the following indices:

- Dow Jones Sustainability Index (North America)
- FTSE4Good Index
- Jantzi Social Index (JSI)

Enbridge Inc. lenders realize returns through interest payments on short- and long-term debt and repayment of principal at maturity. Enbridge Inc. once again met all contractual debt obligations for the year. Interest payments made to lenders during 2011 totaled \$749 million.

For information on shareholder/unitholder returns for Enbridge Income Fund Holdings Inc., please visit <http://www.enbridgeincomefund.com/>; for Enbridge Energy Partners, please visit <http://enbridgepartners.com/EEP/>; and for Enbridge Energy Management, please visit <http://enbridgemanagement.com/EEQ/>.

### **Employees**

Enbridge's business operations provide jobs and contracting opportunities in many communities in Canada and the U.S. Headquartered in Calgary, Enbridge has major offices in Edmonton, Toronto and Houston and numerous field offices in our areas of operations. Combined, Enbridge had over 7,500 permanent employees in Canada and the United States. In 2011, Enbridge's payments to employees for salary as well as annual incentive programs totaled approximately \$762 million. The company also provides direct economic benefits to employees through savings plans, retirement/pension plans, training programs, as well as health benefit plans. The value of these totaled \$173 million in 2011.

For more information on Enbridge's employment practices, please refer to the section "Social Performance: Labour Practices and Decent Work" of this report.

### **Community**

Directed by its social vision statement, Enbridge concentrates its investments in focus areas that contribute to enriching its communities. The six areas are: Lifelong Learning; Community Leadership; Natural Legacy; Arts and Culture; School Plus; and Safe Community. For descriptions of these six areas, please see "Society – SO1 – Community Partnerships and Investments – Strategy" in the Social Performance chapter of this report.

By investing in each of these key areas with our dollars, partnerships and human capital, Enbridge is able to support organizations that contribute to the economic and social development of communities near the company's operations. We believe these investments are essential to being a good neighbour and are a contributing factor in maintaining the company's social license to operate.

Enbridge partners with charitable and non-profit organizations in our various geographic regions in Canada and the U.S. that have the skills and expertise to effect change.

In the year ended December 31, 2011, Enbridge's actual enterprise-wide community investment expenditure totaled \$13 million, which the company invested in more than 550 charitable, non-profit, and community organizations. This total represents approximately one per cent of Enbridge's 2011 Canadian pre-tax profit.

Other direct economic community benefits, although more difficult to quantify, arise as a result of new projects in



and around Enbridge's right-of-way communities. These include job creation, skills training, as well as the purchase of goods and services in and around those communities. Please see "EC9" below for recent examples of projects highlighting these direct and indirect economic benefits.

For more information on Enbridge's community investment, please see "Society – SO1 – Community Partnerships and Investments" in the Social Performance chapter of this report.

## **Government**

As a result of our operations within communities across North America, Enbridge pays income, property, business and other required taxes to local, state, provincial and federal governments in Canada and the U.S. These funds are ultimately used in part to fund and operate public services and infrastructure, both locally and nationally. In 2011, Enbridge paid \$100 million in income, property, business and other required taxes in the two countries.

## **Customers**

Enbridge's gas distribution business provides close to 2 million customers in Canada and upper New York State with access to one of the lowest cost, and cleanest burning, fuel sources—natural gas. Accessing this essential service at a lower cost helps families to manage their cost of living.

Ontario-based Enbridge Gas Distribution (EGD) has distributed over \$56 million to customers through the incentive regulation sharing model, which concluded its fourth year in 2011. This agreement has benefited Enbridge's customers and improved returns to shareholders. EGD is one of the fastest growing utilities in North America, adding approximately 35,000 new customers per year. (For more information on incentive regulation, please see page 65 of Enbridge Inc.'s [2011 year-end Management Discussion and Analysis](#).)

EGD also works with its gas distribution customers through its demand-side management (DSM) programs to increase the efficient use of valuable energy resources, thereby further reducing each household's costs, while at the same time reducing environmental impact. Since 1995, EGD has helped customers reduce their natural gas cumulative consumption by about 7.0 billion cubic metres through participation in its DSM programs (the equivalent of enough gas to supply approximately 2.3 million homes<sup>1</sup> for one year) and net energy savings to customers of approximately \$2.1 billion. Through these DSM activities, EGD has helped its customers avoid cumulatively approximately 13.3 million tonnes of carbon dioxide emissions<sup>2</sup>. Measures like these move Enbridge closer to realizing its emission reduction targets, despite the pressures of significant growth in its customer base.

<sup>1</sup> Assumes a typical residential customer uses 3,064 m<sup>3</sup> per year to heat their home and water

<sup>2</sup> Assumes 1.89 kgs of CO<sub>2</sub> are emitted for each m<sup>3</sup> gas that is consumed

Enbridge's activities also provide a direct, yet not so easily quantifiable, economic benefit to its hydrocarbon transportation customers. Every day through our energy transportation systems in Canada and the U.S., we provide our energy producer customers with direct access to markets. Pipelines are the lowest cost and safest transportation solution for large volumes of hydrocarbons. Without this infrastructure, these customers would not be able to achieve the netback pricing that they do for their products. Furthermore, their resulting increased profitability in turn can lead to their growth, which can in turn lead to increased employment and community investment.

## **EC2**

*Financial implications and other risks and opportunities for the organization's activities due to climate change.*

Climate change and the other changes that climate change will trigger challenge Enbridge with the following financial and business risks:

### **1. INCREASED REGULATORY BURDEN RESULTING FROM GOVERNMENTS' RESPONSE TO CLIMATE CHANGE AND THE IMPERATIVE TO REDUCE GHG EMISSIONS**

The GHG-related regulations under which the company will have to operate in the future will most likely conform in a broad sense to the final U.S. regulations.

Regulatory risks to the company include the issue of local gas distribution companies being required to take responsibility for their customers' emissions from the use of natural gas. Under the proposed cap-and-trade system, the company likely will also be managing both the free allocation and purchase of credits on behalf of customers, a function that companies such as Enbridge Gas Distribution have not traditionally been required to do.

Enbridge could also be exposed to increased power costs associated with its operations, if regulatory constraints associated with climate change are imposed on power utilities. The company anticipates that there

will be no competitive disadvantage to Enbridge if regulatory costs are uniform internationally (i.e., if they impact Enbridge's competitors to the same degree).

Costs are difficult to quantify at this time because related policies in North America and elsewhere are in a state of flux.

## **2. THE LONG-TERM DRIVE TOWARD A MORE CARBON CONSTRAINED FUTURE AND LESS RELIANCE ON FOSSIL FUELS**

Over the longer term, as society transforms to a less carbon intensive energy system, both oil and natural gas, as fossil fuels, will become less desirable as energy sources and more expensive due to increased regulation.

Although availability of renewable and alternative energy is growing, oil and natural gas will continue to be a preeminent energy source in the near- and mid-term. This will provide a continuing need for the current Enbridge services.

Increased investment in renewable and alternative energy is expected to provide opportunities for Enbridge in the longer term and contribute to offsetting the risks associated with a carbon-constrained future.

## **3. THE IMPACTS OF INCREASED SEVERE WEATHER EVENTS ON ENBRIDGE'S INFRASTRUCTURE SYSTEM**

The most severe weather events that Enbridge operations experience are hurricanes along the Texas Gulf coast. However, Enbridge systems are part of a broadly based logistics network that connects producers to consumers, where 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.

## **4. INVESTOR RISK**

There is a growing pool of investment capital worldwide that is dedicated to investments in environmentally responsible and sustainable companies. Further, Enbridge is experiencing growing interest in its business from CSR rating services whose reports can influence these investors' perceptions. Enbridge believes that its ability to respond in a timely and transparent manner to requests for information regarding its environmental commitment enhances its corporate reputation. Enbridge's policy is clear on establishing targets to offset impacts and publicly reporting on progress.

## **5. TECHNOLOGY DEVELOPMENTS**

To mitigate risk and capitalize on emerging technologies, Enbridge, through an internal dedicated department, tracks developments and identifies and screens appropriate new technologies. Technologies of interest are generally associated with new and improved energy delivery and efficiency, as well as renewable and alternative low-impact energy generation.

Enbridge has made significant investments with respect to wind power, solar power, geothermal power and fuel cells. Evaluations concerning carbon capture and storage are ongoing.

### **Opportunities arising from climate change**

Enbridge believes that the company is in a good position to take full advantage of many of the opportunities related to the climate change issue, including the following:

- With an increased focus on demand-side management activities and conservation, the company's recognized expertise in this area is expected to provide a good platform for growth and for offering fee-for-service services to current customers and others.
- There will be increased opportunities for select renewable and alternative energy delivery services in the realm of district energy, which will change the way customers will receive energy in the future. Services along these lines may be offered to third parties.
- As Enbridge's customers become more aware and educated about their carbon exposure issues, the company is expected to be in a strong position to be able to help them manage their emissions, thus creating a stronger link with them for further collaborative activities.
- Enbridge has interests in eight wind power projects, four solar farms, four waste heat recovery facilities, one geothermal facility and one fuel cell. Together, Enbridge's interests have a combined capacity of approximately 960 megawatts, which is enough electricity to meet the power requirements of 290,500

homes, while also avoiding over 1.4 million tonnes of greenhouse gas emissions each year. Enbridge expects future wind and solar opportunities to come through expanding its existing operations, as well as developing new greenfield projects near Enbridge operations throughout North America, particularly where operating synergies can be applied.

- In 2008, Enbridge officially launched the world's first hybrid fuel cell power plant that is designed for gas utility pressure reduction stations. The plant harvests pipeline energy that would otherwise be wasted and the fuel cell operates without burning any fuel to produce about 2.2 megawatts of environmentally preferred, near zero-emissions electricity—enough to serve about 1,700 homes. Enbridge has exclusive North American distribution rights for the hybrid fuel cell technology. Enbridge plans to replicate the plant throughout its distribution network in Ontario and market the hybrid fuel cell to other natural gas pipeline companies in North America.
- Enbridge is one of five participants in the Saskatchewan Aquistore carbon capture and sequestration project, which is managed by the Petroleum Technology Research Centre. This initiative is expected to play a major role in advancing industry and government's knowledge of CO<sub>2</sub> capture and sequestration.

### **EC3**

#### ***Coverage of the organization's defined benefit plan obligations.***

Enbridge maintains pension plans, which provide defined benefit and/or defined contribution pension benefits and other post-employment benefits other than pensions to eligible retirees.

Pension costs and obligations for the defined benefit pension plans are determined using the projected unit credit method. This method involves actuarial calculations using several assumptions, including discount rates, expected rates of return on plan assets, health-care cost trend rates, projected salary increases, retirement age, mortality, and termination rates. These assumptions are determined by Enbridge management and are reviewed annually by the company's actuary. Actual results that differ from assumptions are amortized over future periods and, therefore, could materially affect the expense recognized and the recorded obligation in future periods.

The company remains able to pay the current benefit obligations using cash from operations. Please see [Note 27](#) to Enbridge's Consolidated Financial Statements for the year ended December 31, 2011, which appears on pages 169-171 of the 2011 Annual Report, for disclosure of the difference between the actual and the expected results for the past two years.

Funding in 2012 will be approximately \$106 million.

### **EC4**

#### ***Significant financial assistance received from government.***

Enbridge sells the power that it produces from its Ontario renewable energy projects (listed in the table below) to the Ontario Power Authority (OPA) under long-term—generally, 20-year—Power Purchase Agreements. The contracted power prices per MWh for these projects are currently higher than the market rates for the Ontario wholesale electricity market, and are generally comparable to the prices paid by the OPA under their new Feed-in Tariff (FIT) program. For more information on the FIT program, please visit their website at [fit.powerauthority.on.ca](http://fit.powerauthority.on.ca).

Enbridge also receives incentives for energy production over a 10-year period for three projects under the Government of Canada's ecoENERGY for Renewable Power program. Under the program, the Sarnia Solar project receives \$5 per MWh for energy production, while the Enbridge Ontario Wind and Talbot Wind projects receive \$10 per MWh.

In the U.S., the Cedar Point wind project qualified for the U.S. Department of the Treasury 1603 grant program, under which the project received a cash grant of up to 30 per cent of the project capital costs upon completion of the project. This will also be the case for the Silver State North Solar facility in Nevada that was brought into service in May 2012.

## ENBRIDGE'S RENEWABLE ENERGY PROJECTS

Canada	Output	Capital Cost	Status
Amherstburg Solar	15 MW	\$0.07 billion	Operating
Enbridge Ontario Wind	190 MW	\$0.5 billion	Operating
Greenwich Wind	100 MW	\$0.3 billion	Operating
Lac Alfred Wind	150 MW (net)	\$0.3 billion (net)	Under-construction
Sarnia Solar – Phase 1	20 MW	\$0.1 billion	Operating
Sarnia Solar – Phase II	60 MW	\$0.3 billion	Operating
Talbot Wind	100 MW	\$0.3 billion	Operating
Tilbury Solar	5 MW	\$0.02 billion	Operating
<b>Total</b>	<b>640 MW</b>	<b>\$1.9 billion</b>	

United States	Output	Capital Cost (USD)	Status
Cedar Point Wind	250 MW	\$0.5 billion	Operating
Neal Hot Springs Geothermal Project	22 MW (net)	\$0.1 billion (net)	Under-construction
Silver State North Solar	50 MW	\$0.2 billion	Operating
<b>Total</b>	<b>322 MW</b>	<b>\$0.8 billion</b>	

Enbridge is a consortium member of Project Aquistore, a carbon capture and storage research project led by the Petroleum Technology Research Centre in Saskatchewan. Project Aquistore has received \$5 million from the Government of Canada through the Sustainable Technology Development Corporation as well a \$5 million commitment from the Government of Saskatchewan through the Go Green Fund. Project Aquistore has also applied for \$9 million from NRCan through the ecoEnergy Technology Initiative (ecoETI).

Enbridge receives no other financial assistance from governments other than as described above.

## MARKET PRESENCE

### EC5

*Range of ratios of standard entry-level wages by gender compared to local minimum wage at significant locations of operation.*

Enbridge's remuneration policies are company-wide policies, and there is no significant variation by location. Salary levels are determined using an objective and equitable process that considers the internal value of the role, market rates of pay, as well as employee skill and competency. Enbridge utilizes an objective performance management system that permits top performers to achieve higher-than-average increases in any given year.

### Average salary ratio male to female by job ladder level (%)

Level 1	102.8
Level 2	102.6
Level 3	101.6
Level 4	102.8
Level 5	102.0
Level 6	104.7
Level 7	100.8

## Minimum wage versus Enbridge start rates

Region	Minimum Wage	Enbridge Entry-level Minimum Wage	Enbridge Entry-level Maximum Wage	Ratio of Standard Minimum Wage to Enbridge Entry-level Wage
Ontario	\$10.25			
Toronto		\$17.83	\$26.74	173.95% - 260.88%
Alberta	\$9.40			
Calgary		\$20.52	\$28.97	218.30% - 308.19%
Edmonton		\$14.72	\$20.79	156.60% - 221.17%
Texas	\$7.25			
Houston		\$ 14.12	\$19.93	194.76% - 274.90%

### EC6

*Policy, practices and proportion of spending on locally based suppliers at significant locations of operation.*

Enbridge's [CSR Policy](#) states that "Enbridge will strive to provide employment and economic opportunities in the communities where we operate."

While Enbridge does not have a formal policy regarding buying from locally-based suppliers and it does not formally track its locally-based expenditures, the company can say that, in practice, it meets the majority of its needs through local suppliers.

The company has a clearly defined management and governance structure for all major projects and in that regard strategic relationships have been developed with suppliers and contractors.

For example, over the last four to five years, Enbridge Major Projects has sourced finished pipe worth approximately \$1.5 billion from Canadian-located manufacturing facilities. This has had positive impacts on local businesses and the people they employ. At any given time during Enbridge's pipe production, these manufacturers could employ approximately 700 employees in their facilities working directly on Enbridge's pipeline manufacturing needs. Additionally, there would be a number of businesses and workers that would be positively impacted indirectly by this local pipe production.

Furthermore, as part of its [Aboriginal and Native American Policy](#), Enbridge commits to offering sole-sourced contracting opportunities to qualified Aboriginal and Native American suppliers and contractors where appropriate, and encourages joint venture opportunities between Aboriginal/Native American businesses and non-Aboriginal/Native American businesses when it builds capacity and supports mutual business interests.

### EC7

*Procedures for local hiring and proportion of senior management hired from the local community at locations of significant operation.*

Overall, Enbridge does not have a formal policy regarding hiring locally, but in practice most of the people that the company hires are, in fact, hired locally.

Through our [Aboriginal and Native American Policy](#), we commit to implementing measures to enable Aboriginals and Native Americans to become part of our permanent workforce at a level that is representative of regional demographics and encompasses a wide spectrum of career levels. For information on our approach to Aboriginal economic development, please refer to the section "Social Performance: Society – SO1 – Aboriginal & Native American Relations" of this report.

In Canada, Aboriginal people are a designated group under the Employment Equity Act. Enbridge Liquids Pipelines falls under this act and as such, this group comes under the diversity mandate with specific hiring targets over three years, as well as programs and activities to support Aboriginal inclusion in our workforce. Liquids Pipelines has hired a Manager, Diversity and formed a Diversity Steering Committee, and initiatives are under way to examine current Aboriginal workplace recruitment and retention activities, with the view to increasing Aboriginal workplace participation to represent regional population demographics.

## **INDIRECT ECONOMIC IMPACTS**

### **EC8**

*Development and impact of infrastructure investments and services provided primarily for public benefit through commercial, in-kind, or pro bono engagement.*

Energy is the great enabler and is fundamental to almost everything people do. Yet, in developing countries, access to and affordability of energy can be prohibitive and has a very real impact on the quality and length of life of people in those countries.

Enbridge, through the energy4everyone Foundation (e4e), is highlighting and tackling energy poverty by improving access to energy for targeted communities in Africa and Latin America; and demonstrating to people in developed nations the significant positive impact and value of energy in addressing poverty.

With a vision of empowering people and communities to improve their own lives by providing energy to everyone, e4e seeks to implement practical and sustainable solutions to improve access to energy for communities in need.

e4e designs each of its projects for triple bottom line results—Economic (savings from a more efficient technology, improvement of income level and productive time savings); Environmental (reduction of greenhouse gases, savings of wood fuel and reduced deforestation); and Social (improved access to health, education and means of communication).

Enbridge has established an Employee Volunteer Assignment to give our employees the opportunity not only to implement an e4e project, but also to promote a better understanding of e4e, the energy challenges faced by communities in need, and how e4e sponsored projects are designed to offer sustainable, long-term solutions to communities in need. Each Enbridge employee who has participated as an e4e volunteer was responsible for their own transportation to and from the project site (for example, Peru) and used a week of their personal vacation time

For more information on energy4everyone and the projects in which it is currently engaged, please visit e4e's Facebook page at <http://www.facebook.com/energy4everyone#!/energy4everyone>.

### **EC9**

*Understanding and describing significant indirect economic impacts, including the extent of impacts.*

Pipeline construction is one way that Enbridge generates positive direct economic benefits.

However, the company's pipeline projects also provide significant related indirect economic benefits to stakeholders, such as surrounding communities. For example, it is estimated that in the U.S. in 2009, the construction of the Alberta Clipper and Southern Lights projects created more than 3,000 temporary construction-related jobs. The workers hired for these jobs earned family-supporting wages and benefits and made purchases estimated to total more than \$60 million at lodging facilities, restaurants, gasoline service stations, laundry facilities, convenience stores and other retail establishments, all of which provided an economic boost to communities along the pipeline right-of-way.

Furthermore, Enbridge works extensively with many local vendors, consultants and contractors on all areas of project planning—from environmental inspectors to car dealers for fleet vehicles.

Enbridge's Northern Gateway Pipelines project is another excellent example of a project that will contribute significant direct and indirect economic benefits to the communities along our right-of-way and other stakeholders across the country.

For example, in 2011, Northern Gateway developed an Education, Training and Employment Strategy as a mechanism to help local community members develop the essential and transferable skills necessary to work in the growing pipeline and construction sectors. As part of the overall strategy, Northern Gateway launched a \$1.5-million Education and Training Fund to support flexible community-based training specific to the pipeline and construction sector. Northern Gateway is working with local Aboriginal and non-Aboriginal communities, as well as training providers, to design custom education and training-to-employment programs, and utilizes the fund to cover shortfall costs not funded through existing federal and provincial programs. As part of this initiative, Northern Gateway contributed \$80,000 to the Trade Winds to Success program to use towards trades training for members of six Aboriginal groups in proximity to the proposed Project corridor. Northern Gateway will continue to actively engage in workforce planning initiatives in both Alberta and British Columbia as a mechanism to deal with present and anticipated skilled labour shortages in the pipeline and construction sector.

For further details, please refer to the [Northern Gateway website](http://csr.enbridge.com/northerngateway2010/), including its stand-alone CSR report (<http://csr.enbridge.com/northerngateway2010/>).

For more information on the direct economic benefits that Enbridge generates, please see EC1 above.



# ***ENVIRONMENTAL PERFORMANCE***

## ***WE'RE COMMITTED TO CONDUCTING OUR BUSINESS IN AN ENVIRONMENTALLY SUSTAINABLE WAY.***

Enbridge operates the largest and most complex liquids pipeline system in the world. We recognize that this comes with great responsibilities, and we make the safety and integrity of our pipeline system our highest priority.

Over the past 10 years, Enbridge has delivered almost 12 billion barrels of crude oil, and more than 99.999 per cent of that product safely arrived at its destination. Safety has always been at the heart of our operations, which is why the recent spill incidents we've experienced have only served to heighten our resolve to prevent all spills. In 2011 alone, we invested approximately \$400 million in a wide range of pipeline and facility integrity programs and initiatives to ensure continued improvement. That investment will increase to \$800 million in 2012. Our objective is to be the industry leader in the protection of our workers, the public and the environment.

Enbridge is also resolved to lead the way in developing renewable and alternative energy technologies that have less impact on the environment. Enbridge is involved in eight wind power projects, four solar farms, four waste heat recovery facilities, one geothermal facility and an integrated fuel cell. Enbridge's share in these assets equals a capacity of close to 1,000 megawatts, or enough electricity to supply the equivalent of almost 300,000 homes. Enbridge's renewable and alternative energy investments also result in the avoidance of over 1.4 million tonnes of greenhouse gas emissions each year.

For its part, Enbridge Gas Distribution is working with customers through its demand-side management (DSM) programs to increase the efficient use of valuable energy resources, thereby lowering each household's energy costs, while at the same time reducing environmental impact. Since 1995, EGD has helped customers reduce their natural gas cumulative consumption by about 7.0 billion cubic metres through participation in its DSM programs (the equivalent of enough gas to supply approximately 2.3 million homes for one year) and net energy savings to customers of approximately \$2.1 billion. Through these DSM activities, EGD has helped its customers avoid over 13.3 million tonnes of carbon dioxide emissions.

Enbridge has also formally committed to stabilizing its own environmental footprint through our Neutral Footprint initiative. As of 2009, we're counteracting our environmental impacts within five years of their occurrence—planting a tree for every tree we remove; conserving an acre of natural habitat for every acre we permanently impact; and generating a kilowatt of renewable energy for every kilowatt of power our operations consume. This strategic approach to CSR benefits all of Enbridge's stakeholders and society at large.



GOALS AND PERFORMANCE

<i>Environmental Scorecard Results</i>				
Objectives	2011 Results	2010 Results	Details available in GRI Performance Indicator Section	Challenges
Reduce Canadian absolute direct GHG emissions to 20% below 1990 levels by 2010	Enbridge was able to confirm that the target was met and will set future targets for reducing direct emissions from its assets once it has fully completed an emissions inventory and once there is greater clarity regarding the regulatory framework(s) emerging across the North American jurisdictions where the company has operations.	21% reduction from 1990 levels	EN18	Increased demand for energy  Operational growth  Diversity of operations
Develop enterprise-wide carbon data and GHG management strategies	Continued implementation of Emissions Data Management System, which we now aim to have operational before the end of 2012 in Canada and before the end of 2013 in the U.S.	Implementation under way. Emissions Data Management System will be operational by Q1 2012.	EN18	Operational differences between jurisdictions company-wide growth  Design and installation difficulties of the Emissions Data Management System, resulting in implementation delays
Help customers use energy wisely through demand-side management programs	Saved about 77 million cubic metres of natural gas (enough to supply about 25,000 homes with natural gas for a year). Since its inception in 1995, these programs have helped our customers avoid the emission of over 13 million tonnes of carbon dioxide.	Saved about 65 million cubic metres of natural gas (enough to supply about 21,000 homes with natural gas for a year)	EN26/EN27	Enbridge can encourage customer efficiency but cannot enforce it
Invest in renewable and alternative energy technologies	Completed 250-MW Cedar Point Wind Energy Project in Colorado  Completed 99-MW Greenwich Wind Project in Ontario  Acquired 50% interest in 300-MW Lac Alfred Wind Project in Quebec  Completed 15-MW Amherstburg II Solar Project  Acquired 5-MW Tilbury Solar Project	Achieved commercial operation of 80-megawatt (MW) Sarnia Solar Project  Completed 99-MW Talbot Wind Project  Acquired majority interest in 99-MW Greenwich Wind Energy Project in Ontario  Invested in 250-MW Cedar Point Wind Energy Project in Colorado  Invested in 35-MW (22-MW net) Neal Hot Springs Geothermal Project in Oregon (to be completed in 2012)	EN6	Identifying opportunities and applying technologies  Competitive rates of return for renewable and alternative energy projects

Objectives	2011 Results	2010 Results	Details available in GRI Performance Indicator Section	Challenges
Lead climate change solutions	Investments in renewable and alternative electricity generation (see above) and new emerging technologies—carbon capture and storage; bitumen extraction; solar power; run-of-river hydro; compressed natural gas storage; waste heat recovery; geothermal power; fuel cells; hydrogen production. (For a description of the above, please see EN6)	In June 2010, announced participation in the development of Project Pioneer, Canada's first fully-integrated carbon capture and storage project involving retrofitting a coal-fired electricity plant. (Please see EN18 for a 2011 update)	EN18	Uncertainty surrounding proposed GHG regulations and legislation. High costs associated with implementing climate change technologies
Zero releases  Minimize environmental impacts should releases occur	94 reportable spills, leaks and releases totaling approximately 2,366 barrels, of which 82 had a volume of 10 barrels or less and two were significant (greater than 100 barrels). Liquids Pipelines' spill volume in 2011 of 2,284 barrels represents that business unit's lowest annual spill volume of the past 10 years.	91 reportable spills, leaks and releases totaling approximately 34,258 barrels, of which 78 had a volume of less than 10 barrels and seven were significant (greater than 100 barrels). In July 2010, Enbridge experienced the most serious environmental incident in its long history—the leak of approximately 20,000 barrels of crude oil on its Line 6B pipeline near Marshall, Michigan.	EN23-25	While Enbridge's pipeline and system integrity initiatives contribute to reducing the risk of spills, leaks and releases, these measures cannot completely eliminate the risk. Therefore, Enbridge has comprehensive spill preparedness and response and environmental mitigation plans in place to respond rapidly and completely if a spill does occur.
Ensure no net increase to Enbridge's environmental footprint as a result of new projects in operation between 2009 and 2015. <sup>1</sup> Enbridge's Neutral Footprint commitments: tree for a tree; acre for an acre; kilowatt for a kilowatt	From the start of January 2009 through to the end of the second quarter of 2012: <ul style="list-style-type: none"> <li>• 545,000 trees removed and 375,000 tree seedlings planted; and</li> <li>• approximately 1,700 acres of natural habitat disturbed and 5,260 acres conserved (surplus will be applied to future projects)</li> <li>• By the end of 2011, we were forecasting that our power consumption will grow by 2,668 GWh by 2015, while power generated from our renewable energy assets (both existing and under construction) will be 3,080 GWh.</li> </ul>	From the start of January 2009 through to the end of the second quarter of 2011: just over half a million trees removed and 250,000 tree seedlings planted; 1,008 acres of natural habitat disturbed and 2,484 acres conserved (surplus of 1,476 acres will be applied to future project impacts) Enbridge's annual electricity consumption forecast to increase by 1,852 gigawatt hours (GWh). Enbridge's existing renewable power generating facilities and those under construction will produce approximately 2,327 GWh	EN6 re electricity consumption; and EN11-EN15 re land impacts	Identification of comparable areas for conservation Development of appropriate partnerships for tree planting The need to increase investments in demand-side management programs that help customers use energy wisely The need to increase investments in renewable and alternative energy technologies

<sup>1</sup> Enbridge announced this objective, called Neutral Footprint, on May 6, 2009, at the company's Annual General Meeting of shareholders.

## **ENVIRONMENTAL PERFORMANCE INDICATORS**

### **MATERIALS**

#### **EN1**

*Materials used by weight or volume.*

#### **EN2**

*Percentage of materials used that are recycled input materials.*

Across the Enbridge organization, pipe and paper are the two most commonly used materials.

#### **Pipe**

The most significant purchase Enbridge makes is steel pipe, with which we construct our pipelines. 93.6 per cent of the pipe that Enbridge's primary supplier, Evraz Inc. NA, manufactures for the company is made from recycled steel. In 2011, Enbridge purchased 63,490 tonnes of pipe from Evraz. This equates to 59,427 tonnes of recycled steel being used.

Enbridge Gas Distribution (EGD) purchased approximately 1,530 tonnes of steel pipe and 918 tonnes of polyethylene pipe in 2011. The recycled content of its steel pipe ranges from 25 to 100 per cent. Regarding polyethylene pipe, 51 per cent of total pipe (above NPS 2 in size) purchased includes up to 30 per cent recycled material.

#### **Paper**

In 2011:

- Enbridge offices in Calgary used approximately 39 tonnes of printing/photocopying paper with 25 tonnes having 30 per cent recycled content. Enbridge's Calgary office recycled approximately 30 tonnes of paper in 2010.
- Liquids Pipelines' Edmonton offices used approximately 78 tonnes of paper, with 69 tonnes having 30 per cent recycled content.
- Gas Transportation used approximately 49 tonnes of paper.
- EGD used approximately 35 tonnes of paper, with 30 per cent recycled content. This is down from 39 tonnes in 2010 and 42 tonnes in 2009.

## **ENERGY**

#### **EN3**

*Direct energy consumption by primary energy source.*

#### **EN4**

*Indirect energy consumption by primary source.*

## **ENBRIDGE'S IMPACTS**

Enbridge's Liquids Pipelines systems in Canada and the U.S. primarily use electric pumps to move product through its pipelines, while the company's natural gas gathering, transmission and distribution systems use natural gas as fuel for the compressors that move the gas along their pipelines. Enbridge's gas distribution systems in Ontario, Quebec, New Brunswick and New York state are powered by electricity and natural gas. The company uses diesel fuel and natural gas to drive pumps in remote locations along the Enbridge Norman Wells Pipeline system in the Northwest Territories.

#### **Direct energy consumption**

The table below summarizes direct energy consumption associated with operations of Liquids Pipelines (Canada), Liquids Pipelines (U.S.), Vector Pipeline (U.S.), and Enbridge Gas Distribution (EGD). There are minor variances from previous CSR reports due to accounting/measurement refinements. All units in these tables are in gigajoules (GJ).

<b>Liquids Pipelines (Canada) (GJ)</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Stationary equipment – natural gas	83,300	74,033	84,661	103,040
Stationary equipment – propane, diesel	44,535	43,179	35,745	29,140
Mobile sources – all fuel types	48,492	63,103	57,205	59,183
<b>Total</b>	<b>176,327</b>	<b>180,315</b>	<b>177,611</b>	<b>191,363</b>

Table note: The above data includes natural gas energy used at Enbridge Inc.'s office in Edmonton.

<b>Liquids Pipelines (U.S.) (GJ)</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Stationary equipment – natural gas	79,252	52,237	0	133,887
Stationary equipment – liquid fuels	82	64	32	100
Mobile sources - all fuel types	42,401	40,585	38,352	36,033
<b>Total</b>	<b>121,735</b>	<b>92,886</b>	<b>38,384</b>	<b>170,020</b>

<b>Vector Pipeline (U.S.) (GJ)</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
Stationary equipment – natural gas	6,165,554	6,071,251	5,295,566	4,875,194
Stationary equipment – liquid fuels	0	0	0	0
Mobile sources – all fuel types	1,425	1,580	1,364	1,216
<b>Total</b>	<b>6,166,979</b>	<b>6,072,831</b>	<b>5,296,930</b>	<b>4,876,410</b>

Table note: natural gas use for 2008 has been calculated based on the 2009 fuel-use rate per HP-hour.

<b>Gas Transportation (GJ)</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>
Mobile sources – gasoline	95,200	86,457	137,184
Stationary equipment – diesel fuel	524,867	414,190	153,048
<b>Total</b>	<b>620,067</b>	<b>500,647</b>	<b>290,232</b>

Table note: Collection of this data was initiated in 2009.

<b>Enbridge Gas Distribution (GJ)</b>	<b>2011</b>	<b>2010</b>	<b>2009</b>	<b>2008</b>
<b>Buildings and Operations</b>				
Natural gas combustion	657,359	540,795	480,362	482,328
<b>Fleet and Equipment</b>				
Diesel vehicles	49,073	50,195	46,154	40,302
Gasoline vehicles	53,520	53,499	55,844	64,500
NGV (natural gas vehicles)	45,860	50,847	44,534	49,015
<b>Total</b>	<b>805,812</b>	<b>695,336</b>	<b>626,894</b>	<b>636,145</b>

<b>Renewable electricity generation (GJ)</b>	<b>2011</b>
Stationary equipment – natural gas	24,786
Stationary equipment – liquid fuels	410
Mobile sources – all fuel types	907
<b>Total</b>	<b>26,103</b>

Table note: This is the first time Enbridge has reported direct energy consumption associated with the operations of its renewable energy assets.

Corporate (GJ)	2011
Stationary equipment – natural gas	16,797
Stationary equipment – liquid fuels	0
Mobile sources – all fuel types	24,466

Total	41,263
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Table note: In previous CSR reports, energy data for Enbridge's Corporate offices were included in the data of the Liquids Pipelines business unit.

### Indirect energy consumption

The table below summarizes indirect energy consumption associated with operations of Liquids Pipelines (Canada), Liquids Pipelines (U.S.), and Enbridge Gas Distribution. Data on electricity consumption on the Vector Pipeline (U.S.) system has not been compiled but it is comparatively minor relative to the direct energy use on this natural gas transmission pipeline operation. All units in these tables are in gigajoules (GJ).

Liquids Pipelines (Canada) (GJ)	2011	2010	2009	2008
Electricity	6,612,792	7,247,633	7,243,904	6,952,055

Table note: The above data includes the electricity used in Enbridge's Edmonton and Calgary offices.

Liquids Pipelines (U.S.) (GJ)	2011	2010	2009	2008
Electricity	7,351,434	7,591,274	7,576,462	8,065,406

Gas Transportation (GJ)	2011	2010	2009	2008
Electricity	1,968,522	601,758	665,399	-

Enbridge Gas Distribution (GJ)	2011	2010	2009	2008
<b>Buildings and Operations</b>				
Electricity	58,724	71,825	73,261	69,394

Renewable electricity generation (GJ)	2011
Electricity	10,345

Corporate (GJ)	2011
Electricity	9,145

## EN5

*Energy saved due to conservation and efficiency improvements.*

Enbridge strives to reduce energy use through efficiency improvements and conservation efforts.

### Liquids Pipelines

As products in Enbridge's pipelines and power contracts change, we continually review natural flow rates for our liquids pipelines. The flow rates are designed to optimize pipeline operating pressures to match equipment and the types of products transported. By applying these rates to the pipeline, Enbridge works to optimize the operating performance of the system, thus lowering power costs and reducing maintenance. In addition, Enbridge has introduced additives in the pipeline to reduce friction of liquids products and optimize flow.

Indirect emissions from operations are due mainly to the electricity used at pump stations on the liquids pipelines system. There are both operating-cost and GHG-emission-reduction benefits when pumping operations are optimized and when more energy-efficient equipment is used. However, it is difficult to baseline and isolate these savings from other factors such as changing pipeline hydraulics, and therefore this report does not track reductions associated with these capacity increases.

### Gas Transportation

Gas Transportation (GT) purchased three FLIR GasFind infrared cameras in 2011 for use in detecting leaks at

operating facilities. These cameras are capable of producing real-time images of fugitive emissions leaking from process equipment. The cameras are being used to conduct periodic surveys at facilities to identify leaks and other maintenance issues during routine operations, and to verify the integrity of initial construction and repairs at facilities. The ease of use and rapid-scan functionality of the cameras allow for a greater frequency of leak detection surveys at facilities, resulting in more rapid detection of leaking components for repair and reduced gas loss due to fugitive leaks from GT's facilities.

## Enbridge Gas Distribution

Enbridge Gas Distribution (EGD) has been proactive in reducing its direct energy consumption by reducing its electricity and gas requirements to run its operations throughout its franchise areas. These actions have resulted in dramatically reducing EGD's gas and electricity usage, including the reduction of the EGD head office's 2011 electrical consumption by 82 per cent from the 1990 base. For example, EGD reduced its purchase of electricity for December 2011 to just 4,099 kWh from 1,064,578 kWh in 1990. This is attributable to reduction measures listed below and self-generation of electricity through its fuel cell/ turbo expander. (Enbridge launched the world's first integrated energy recovery and fuel cell power plant at EGD's head office in Toronto in 2008.) Considering the fact that EGD's head office building in Toronto maintains a data centre and process space, the ongoing savings are significant.

Actions taken to reduce direct energy consumption at EGD's head office building include:

- reusing the generator waste heat from the standby generator to provide necessary heat for the fuel cell power plant's turbo-expander system;
- improving controls to optimize the use of gas/electricity;
- adding a third chiller and fan coil units to reduce the power requirement for the data centre and allowing free cooling of the centre during the winter months;
- replacing the meter shop HVAC and process equipment to minimize energy use by installing hot water coils and improving the controls in this continuous operation; and
- installing new HVAC equipment, UPS and electrical redundancy, including efficient IT equipment and VM (virtual machine) servers requiring less power than previously.

Leading by example, EGD designed and commenced construction in July 2011 of a new 100,000-square-foot Technology Centre utilizing many of these technologies to target a 78 per cent gas reduction and a 68 per cent electricity reduction. The centre is designed to achieve a LEED<sup>1</sup> Gold rating when built and after evaluation.

In addition, EGD continues to implement energy efficiency measures in its operations. For example, line heater energy efficiency efforts implemented since 2000 are saving, on average, about 142,000 GJ per year.

## EN6

*Initiatives to provide energy-efficient or renewable energy based products and services, and reductions in energy requirements as a result of these initiatives.*

The public's focus on conservation and climate change continues to motivate governments to increase their emphasis on energy efficiency and renewable and alternative energy initiatives, including wind, water, biomass, biogas, solar, waste heat, fuel cells and geothermal energy generation.

Consistent with our vision of being a leading energy delivery company, Enbridge is investing substantially in low-environmental-impact energy sources—both renewable and alternative—that help to reduce greenhouse gas emissions and address the issue of global climate change.

Since 2000, we have steadily increased our investments in clean energy projects. In just 12 years, our renewable energy assets have grown from virtually nothing to almost \$3 billion.

The majority of Enbridge's renewable energy investments are in wind and solar energy projects. However, the company also invests in other technologies, projects and companies that will achieve returns similar to those realized by Enbridge's oil and gas transportation and delivery operations, and that will contribute to a cleaner energy future.

In May 2009, Enbridge announced an ambitious plan to stabilize Enbridge's environmental footprint. The company's Neutral Footprint Initiative is designed to reduce Enbridge's environmental impact where it is felt most: on the trees the company removes, the natural habitat Enbridge permanently alters, and the energy the company uses to power its operations. As part of this Neutral Footprint Initiative, Enbridge has committed to generating a kilowatt hour of renewable energy for every kilowatt hour of power the company's operations consume. Please see below in this EN6 section for more information on the Kilowatt for a Kilowatt aspect of the Neutral Footprint Initiative and the EN11-15 section for more information on the Tree for a Tree and Acre for an Acre aspects of the initiative.

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<sup>1</sup> Leadership in Energy and Environmental Design (LEED) is an internationally recognized mark of excellence, providing building owners and operators with a framework for identifying and implementing practical and measurable green building design, construction, operations and maintenance solutions. LEED certification provides independent, third-party verification that a building was designed and built using strategies aimed at achieving high performance in key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

## Renewable and Alternative Energy

Enbridge's renewable and alternative energy portfolio is diversified and growing. The company's interests in wind, solar, geothermal, waste heat and integrated fuel cells generating capacity now total close to 1,000 MW. Enbridge's interests in alternative and renewable generation, in operation and under construction, have the capacity to supply the equivalent of more than 290,500 homes. Enbridge's renewable and alternative energy investments also result in the avoidance of over 1.4 million tonnes of greenhouse gas emissions each year.

The following table provides an overview of Enbridge's current renewable and alternative energy investments. More details about these are provided below the table:

### RENEWABLE ENERGY

100 per cent owned and operated by Enbridge and its affiliates, except where less than full ownership/operatorship is indicated.

Project Name	Type	Generating capacity	Ownership	Location	In-service date
SunBridge	wind	11 MW	Enbridge Income Fund (50%)*	Gull Lake, Saskatchewan	2002
Magrath	wind	30 MW	Enbridge Income Fund (33%)*	Magrath, Alberta	2004
Chin Chute	wind	30 MW	Enbridge Income Fund (33%)*	Taber, Alberta	2006
Ontario Wind Project	wind	190 MW	Enbridge Income Fund	Bruce County, Ontario	2009
Talbot	wind	99 MW	Enbridge Income Fund	Chatham, Ontario	2010
Greenwich	wind	99 MW	Enbridge Inc. (90%)	Dorian, Ontario	2011
Cedar Point	wind	250 MW	Enbridge Inc.	Cedar Point, Colorado	2011
Lac Alfred	wind	308 MW	Enbridge Inc. (50%)	Amqui, Quebec	2012/2013
Sarnia Solar Project	solar	80 MW	Enbridge Income Fund	Sarnia, Ontario	2009 (20 MW) 2010 (60 MW)
Tilbury Solar Project	solar	5 MW	Enbridge Inc.	Tilbury, Ontario	2010
Amherstburg II Solar Project	solar	15 MW	Enbridge Inc.	Amherstburg, Ontario	2011
Silver State North Solar Project	solar	50 MW	Enbridge Inc.	Primm, Nevada	2012
Neal Hot Springs	geothermal	22 MW	Enbridge Inc. (20%)	Malheur County, Oregon	2012

### ALTERNATIVE ENERGY

100 per cent owned and operated by Enbridge and its affiliates, except where less than full ownership/operatorship is indicated.

Project Name	Type	Generating capacity	Ownership	Location	In-service date
NRGreen Power	waste heat recovery	20 MW	Enbridge Income Fund (50%)*	Saskatchewan	2008
NRGreen Power	waste heat recovery	14 MW	Enbridge Income Fund (50%)*	Alberta	2013
Enbridge Hybrid Fuel Cell	fuel cells	2.2 MW	Enbridge Inc.	Toronto, Ontario	2008

\*Enbridge Inc. owns 27.4 per cent of Enbridge Income Fund ordinary trust units, but holds a 69.2 per cent economic interest in the Fund assets due to its holdings in Enbridge Income Fund Holdings Inc. and ownership of ECT Preferred Units.

## RENEWABLE ENERGY

### Wind Power

Enbridge currently has interests in wind farms in Alberta (2), Saskatchewan (1), Ontario (3), Quebec (1) and Colorado (1), which, once all completed, will have a combined total capacity of about 1,017 MW (709 MW of that capacity was operational in 2011). Enbridge's share in these assets equals approximately 800 MW.

In 2011, Enbridge:

- completed the 99-MW Talbot Wind Project and the 99-MW Greenwich Wind Energy Project, both in Ontario, and the 250-MW Cedar Point Wind Energy Project in Colorado; and
- acquired 50 per cent interest in the 308-MW Lac Alfred Wind Project, which is expected to start delivering emissions-free energy to the Quebec grid by the end of 2012. This marks Enbridge's entry into the growing Quebec wind energy market, which is the second largest in Canada.

Wind-generated electricity is the fastest-growing sector of electricity generation in North America, as substantial technological advances and feed-in tariffs that offer a premium for wind power have enabled such projects to become economically attractive investments.

Enbridge expects future wind opportunities to come through expanding its existing operations and developing



new greenfield projects throughout North America.

Today, Enbridge's wind power investments have the capacity to supply 250,300 homes and avoid the emission of approximately 1.2 million tonnes of CO<sub>2</sub> per year.

### **Solar Power**

Enbridge believes that solar energy represents meaningful opportunities for long-term growth. The company currently has interests in solar farms in Ontario (3) and Nevada (1) with a combined total capacity of about 150 MW.

The company first entered into solar energy in a significant way in 2009 with its investment in the 80-MW Sarnia Solar facility, one of the largest photovoltaic solar energy facilities in North America.

In early 2011, Enbridge acquired two new solar energy projects in Ontario from First Solar, a leading manufacturer of photovoltaic solar panels. The Tilbury Solar Project and the Amherstburg II Solar Project have a combined generating capacity of 20 MW.

In March 2012, Enbridge acquired a 100 per cent interest in the 50-MW Silver State North Solar Project near Las Vegas, Nevada, and starting in May 2012 the output from this utility-scale facility is being sold to NV Energy under a 25-year power purchase agreement.

Today, Enbridge's solar power investments have the capacity to supply 25,000 homes and avoid the emission of approximately 92,000 tonnes of CO<sub>2</sub> per year.

### **Geothermal Power**

In mid-2010, Enbridge invested in the 35-MW (22-MW net) Neal Hot Springs Geothermal Project. The project, which is located in Oregon's Malheur County, is being developed by U.S. Geothermal Inc., which will also construct and operate the facility. Scheduled to be operational in autumn 2012, it will deliver electricity to the Idaho Power grid under a 25-year power purchase agreement. Geothermal energy is energy recovered from the heat of the earth's interior. The annual yield for the project will be about 293,000 MWh, which is enough to power about 3,500 homes.

### **Run-of-river hydro**

With Coastal Hydropower Corporation, Enbridge has invested in the Wasdell Falls Run-of-River Hydroelectricity Project on Ontario's Severn River north of Toronto. The project generates hydroelectricity using highly efficient low-head turbines (VLH). This project has a low impact on its surroundings. Without substantial alterations to rivers and canals, it directs water through a slow-moving turbine that then returns the water to the river.

### **Morgan Solar**

In 2011, Enbridge invested in next-generation solar technology through a \$9.8-million investment in Morgan Solar, a Canadian start-up. The investment is intended to help Morgan Solar commercialize a new line of concentrating photovoltaic (PV) panels, which use plastic lenses to boost solar cells' power output. The technology provides an innovative means of generating solar power more efficiently and less expensively and with a lower environmental footprint.

### **Hydrogenics**

In 2012, Enbridge entered into a partnership with Hydrogenics Corp. to develop large-scale electricity storage. The two companies will jointly develop a 1-megawatt, power-to-gas energy storage project in Ontario to prove the technology at a utility scale.

Hydrogenics' water electrolysis technology will convert surplus renewable energy into hydrogen gas, and Enbridge's expertise in the ownership and operation of natural gas pipelines will enable the partnership to offer seasonal electricity storage capability to the electricity sector.

The technology could be particularly advantageous in markets with large amounts of renewable energy from intermittent sources such as wind. By converting the electricity to gas and storing it in the vast natural gas pipeline networks, more renewable energy can be stored for long periods, increasing the amount of clean energy that is available for consumers.

### **Renewable Natural Gas/Biogas**

Enbridge and other gas pipeline companies are evaluating business opportunities linked to developing renewable natural gas supplies for pipelines.

These opportunities include the potential for new pricing structures that could encourage investments that add pipeline-quality biogas from landfills and other renewable sources to the province's natural gas distribution system.

## **ALTERNATIVE ENERGY TECHNOLOGIES**

### **Waste Heat Recovery**

Enbridge Income Fund has a 50 per cent investment in NRGreen Power, which operates four non-regulated waste heat recovery facilities located in Saskatchewan along the Alliance Pipeline. (Enbridge Inc. has a 69.2 per cent economic interest in Enbridge Income Fund.) These four facilities combined produce approximately 20 MW of power. In 2011, NRGreen announced plans to build a fifth facility at Alliance's Windfall Compressor Station near Whitecourt, Alberta, that will deliver up to 14 MW of electricity and is expected to be in service in late 2013.

NRGreen generates electricity by harnessing the waste heat produced by Alliance Canada's gas turbines at its compressor stations and using it to produce electricity. The four facilities that are currently operational plus the new facility will together generate enough energy to meet the power needs of approximately 34,000 homes and avoid the emission of approximately 253,300 tonnes of CO<sub>2</sub> per year.

### **Fuel Cells**

Enbridge launched the world's first integrated energy recovery and fuel cell power plant at Enbridge Gas Distribution's head office in Toronto in 2008.

The power plant is designed for gas utility pressure reduction stations, converting unused pipeline energy, a byproduct of distributing natural gas to customers, into electricity. Our Toronto plant generates 2.2 MW of clean electricity, or enough to serve up to 1,700 homes.

### **Genalta Power Inc.**

In 2012, Enbridge invested in Genalta Power, a privately held Canadian corporation that owns and operates independent power plants that produce and sell environmentally friendly electricity from waste energy sources. Genalta works with site owners to provide: base-load green energy; increased plant efficiencies; operating cost reductions; greenhouse credits and emission reductions; and long-term sustainable energy. Genalta capitalizes on opportunities in the independent power market by developing dependable, cost-effective and environmentally responsible power generation facilities.

## **ENBRIDGE'S NEUTRAL FOOTPRINT INITIATIVE – KILOWATT FOR A KILOWATT**

As part of our Neutral Footprint Initiative, Enbridge has committed to generating a kilowatt hour of renewable energy for every kilowatt hour of additional power its operations consume above 2008 levels (January 1, 2009, being the start date for applying the company's neutral footprint commitment). The company will fulfill this commitment within five years of the additional power consumption.

Each year, Enbridge will compile the forecasted power consumption for Enbridge's company-wide operations. Any net increase in power consumption will be counterbalanced by the company's investments in economically viable renewable energy production. Enbridge will address growth in its electricity consumption on a five-year rolling basis consistent with the long-range planning horizon.

Enbridge's investments in new renewable power generation will, at a minimum, be proportional to the growth in electricity consumption by its operations, beginning January 1, 2009. Because Enbridge's electricity consumption fluctuates from year to year, we base this commitment on our long-term consumption forecast. By mid-2012, we were forecasting that our power consumption will grow by 2,668 GWh by 2015, while power generated from our renewable energy assets (both existing and under construction) will be 3,080 GWh. For the current status of our Kilowatt for Kilowatt commitment, please see our [Neutral Footprint dashboard](#).

## **EN7**

*Initiatives to reduce indirect energy consumption and reductions achieved.*

### **Organization-wide**

At the end of 2011, Enbridge had 24 active TelePresence video conference rooms. These installations increase efficiency in the organization by making it easier for employees to meet virtually face-to-face. This reduces travel and increases productivity. In 2011, Enbridge estimates that this resulted in over 1,820 fewer trips between the company's offices in Canada and the United States. This avoided 2.8 million kilometres (about 1.7 million miles) of air travel, which resulted in about 116 tonnes of CO<sub>2</sub> emissions being avoided. These estimates are based on just one third of the actual usage of the video conference facilities.

## **Liquids Pipelines**

Liquids Pipelines has various energy savings initiatives in place, including the following:

### ***Edmonton office***

- installed energy-efficient lighting
- battery recycling program
- motion sensors installed in new meeting rooms to turn out lights when inactive
- in 2009, in order to reduce waste, we have created “water bottle free zones” in our Calgary and Edmonton offices. Instead of using plastic water bottles, water chillers have been installed
  - locker room renovations to promote health and wellness and walking and cycling to work
  - toner cartridges are recycled

### ***Calgary office***

- battery recycling program
- printers/copiers use 30 per cent recycled paper and are set to default to 2-sided printing
- light/motion sensors installed to control lighting
- washroom renovations included low-flush toilets and sinks and hands-free flush and sinks for less water use
- Styrofoam-free kitchens
- new carpet tiles are made of recyclable materials
- locker rooms to promote health and wellness and walking and cycling to work
- low-flow showerheads

### ***Superior office***

- light/motion sensors installed to control lighting
- restrooms have low-flush toilets and sinks
- Styrofoam-free kitchens

## **Gas Transportation**

GT has various energy savings initiatives in place, including the following:

### ***Houston Office***

- battery recycling program
- paper recycling program
- printers and copiers set to default to 2-sided printing
- light/motion sensors to control lighting
- Styrofoam-free kitchen initiative
- toner cartridges are recycled
- aluminum cans recycled

### ***Springtown Office***

- aluminum cans recycled
- paper recycling program
- toner cartridges are recycled

## **Enbridge Gas Distribution**

Actions taken to reduce indirect energy consumption at EGD’s head office building in Toronto include:

- operating Energy Recovery the Direct FuelCell®-Generation (DFC®-ERG) Power Plant and turbo expander to generate up to 2.2. megawatts of green power for use in the building;
- completion of the “2N Project” to provide a second distribution grid connection for redundancy of the data centre and tying the fuel cell into the building as a direct source of the building power;

- producing building power requirements from the standby generator for use in the building; and
- setting back all lighting/HVAC/workstation power.

## **WATER**

### **EN8**

*Total water withdrawal by source.*

### **EN9**

*Water sources significantly affected by withdrawal of water.*

### **EN10**

*Percentage and total volume of water recycled and reused.*

Enbridge does not use water to transport liquid hydrocarbons or natural gas. Therefore, the company's operations use only a small amount of water.

During new pipeline construction, Enbridge tries to avoid crossing waterways and wetlands. However, when we must cross them, any disturbances we cause during construction are temporary because we fully restore these areas to their previous states and use a variety of measures to minimize our impacts.

For example, in some instances when our pipelines have to cross water, we employ horizontal directional drilling to bore under water bodies and install thicker walled pipe. Other measures we take include trenching and encasing the pipe in concrete. We also time construction to cause the least impact—for example, during winter when water flow is slow or frozen and biodiversity is seasonally low.

When construction is completed, we conduct hydrostatic testing before the line becomes operational. This involves filling a section of the new line with water, generally withdrawn locally from the environment, and pressuring that section to check and confirm its functionality. In doing so, we follow company policy and regulatory standards and criteria, which include testing the water before releasing it back into the same watershed it came from.

When a pipeline is operational, Enbridge's pipeline integrity programs regularly assess the line both internally, with in-line sensing devices (smart pigs) and externally, with sensing devices and test excavations.

#### **Surface water**

Enbridge has established standards and procedures for managing water runoff from its facilities and during pipeline construction. The company has many controls in place and implements others as required by the project or relevant regulatory body. The controls used include berms and containment areas to prevent offsite contamination at facilities, as well as inspection and controlled discharge procedures.

#### **Groundwater**

In 2011, Liquids Pipelines continued its system-wide groundwater monitoring program. This program provides regular monitoring of Enbridge facilities to proactively identify potential impacts to groundwater, allowing the company to identify potential issues and maintain compliance with regulatory requirements. In 2011, the company expanded its network by adding groundwater monitoring networks at several U.S. facilities including Bartlett, North Dakota; Ladysmith, Wisconsin; Forest, Missouri; Manhattan, Illinois; and Cushing, Oklahoma.

Liquids Pipelines also continued its remediation efforts to manage groundwater contamination associated with Enbridge's Hardisty Caverns. Prior to Enbridge's acquisition of the facility, the clay liner used to contain the brine in cavern operations leaked. Enbridge operates 10 deep recovery wells to extract the contaminated groundwater either for reuse in the brine pond as makeup water, or for disposal in an onsite disposal well. The recovery wells will serve two purposes: (1) to slowly clean the groundwater by removing the contaminated water; and (2) to hydraulically contain the site, stopping further migration of the brine contamination. It is anticipated that all deep recovery wells will be installed by the end of 2012.

In 2011, Enbridge continued operation of a groundwater remediation system at its Metiskow (Saskatchewan) station. This system is required to treat groundwater contamination identified at the site. It involves groundwater recovery, treatment and reinjection systems that are designed to contain and treat groundwater contamination.

Enbridge also continued to operate a groundwater recovery and treatment system at the site of a February 2007 leak near Exeland, Wisconsin. This system is successfully recovering groundwater from the site and preventing migration to a local creek. By mid-2011, the extent of groundwater impact had been reduced by 50 per cent.

## **BIODIVERSITY**

### **EN11**

*Location and size of land owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas.*

### **EN12**

*Description of significant impacts of activities, products and services on biodiversity in protected areas and areas of high biodiversity value outside protected areas.*

### **EN13**

*Habitats protected or restored.*

### **EN14**

*Strategies, current actions and future plans for managing impacts on biodiversity.*

### **EN15**

*Number of IUCN Red List species and national conservation list species with habitats in areas affected by operations, by level of extinction risk.*

Enbridge views biodiversity conservation as an important part of responsible environmental management and routinely incorporates ways to avoid and conserve wildlife habitat into its project planning and maintenance activities.

Moreover, in May 2009, Enbridge announced an ambitious plan to stabilize the company's environmental footprint. Our Neutral Footprint Initiative is designed to reduce Enbridge's environmental impact where it is felt most: on the trees the company removes, the natural habitat Enbridge permanently alters, and the energy the company uses to power its operations. As part of this Neutral Footprint Initiative, Enbridge has committed to planting a tree for every merchantable tree the company removes and helping to conserve an acre (or hectare) of natural habitat for every acre (or hectare) the company permanently impacts. Please see below for more information on the Tree for a Tree and Acre for an Acre aspects of the Neutral Footprint Initiative.

#### **Enbridge's Approach**

Enbridge always conducts detailed environmental impact assessments for our new pipeline projects, not only to comply with regulations, but also to meet our own requirements, which often exceed regulatory requirements. These assessments include reviewing potential routing alternatives to avoid, minimize, or mitigate our impact on sensitive areas.

After consulting with natural resource management agencies, Enbridge may, for example, determine that alignment changes to a pipeline could eliminate or greatly reduce short- and long-term construction impacts. Historically, such measures have enabled Enbridge to protect old-growth forests and avoid disturbing sensitive wetlands and endangered species habitats.

Enbridge also evaluates water-crossings on a case-by-case basis to minimize impacts to rivers and streams. The company incorporates environmental construction procedures into all projects and provides related training or guidelines to employees and contractors.

#### **Mapping pipelines for species at risk**

In Canada, Enbridge's Liquids Pipelines business is regulated under the Species at Risk Act (SARA), which aims to protect wildlife species and conserve biological diversity. We first mapped our Canadian mainline system in 2004, using digital mapping technology, to identify areas along parts of our right-of-way where there may be species at risk. In 2011, we continued to update this system to ensure the company is working with the most accurate and effective data. This enables environment staff to identify sensitive wildlife habitat at specific locations before we undertake projects or pipeline maintenance activities.

In the U.S., Enbridge's mainline segments have digital data regarding threatened or endangered species that are protected under the Endangered Species Act. As well, when Enbridge undertakes major construction or maintenance activities, it incorporates appropriate avoidance measures or restrictions. In preparation for an expansion, Enbridge also surveys the area and takes appropriate measures to limit impact.

### ***Managing vegetation***

Vegetation management activities at our facilities and on our pipeline rights-of-way focus on using the most environmentally-appropriate and economical ways of keeping our rights-of-way clear for inspection. Our vegetation management plans and procedures stipulate that the visible results and perceived impacts of vegetation management activities on adjacent landowners and the general public must be considered when those activities are being planned and implemented.

### ***Protecting soils and waterways***

We are committed to protecting the environmental integrity of soils and waterways in and around our operations, and we have led the development of best practices in preserving agricultural land. As part of this work, we are implementing practices that limit the long-term impact on cultivated lands when developing projects.

### ***Protecting sensitive habitats***

For projects, Enbridge conducts exhaustive analysis of various routing alternatives to determine whether these alternatives would avoid or minimize impacts to natural resources, reduce or eliminate engineering and constructability concerns, and avoid or minimize conflicts with existing or proposed residential and agricultural lands. The alternative analysis focuses on minimizing the length of the pipeline to the extent practicable, while also minimizing the environmental impacts to specific resources. At times, a pipeline route will traverse distinct natural communities. Therefore, Enbridge conducts surveys of the entire project route to identify sensitive natural and cultural resources such as wetlands, water bodies and plant/animal populations. Enbridge utilizes the survey results to identify areas requiring alternative construction techniques, timing restrictions to minimize impacts during breeding or spawning seasons for certain sensitive species, or route variations to minimize or avoid impacts to sensitive plant species. Certain features cannot be avoided and as such stringent conditions from regulators are applied and specific mitigation is set out and approved by various regulatory agencies.

Where sensitive habitats have been identified, Enbridge implements situation-specific operational plans and protocols to minimize impacts to sensitive species. Examples of this include measures to protect Boreal Caribou populations in the Northwest Territories and Alberta, moose habitat along the Athabasca Pipeline system, and the Karner Blue butterfly in Wisconsin. We restrict maintenance activities and implement special precautions to ensure our operations have minimal impact on these species.

Enbridge Gas Distribution implements either environmental screening or environmental assessment (depending on project scope) to identify any features that may be impacted by construction or maintenance activities and puts into place mitigation measures to protect them. The company uses horizontal directional drilling when crossing beneath watercourses, and before doing so always obtains permits from respective conservation authorities and provincial ministries as required. It further ensures protection of watercourses through regular pipe inspections. In 2011, Enbridge Gas Distribution did not conduct any activities in protected areas or areas of high biodiversity; and, apart from an easement on the western edge of Springwater Provincial Park, which is located near Midhurst, Ontario, Enbridge Gas Distribution does not have any pipe installed in environmentally sensitive areas.

In the U.S., some of Gas Transportation's pipelines are located in lakes/navigable waterways and within high bio-diverse land areas. Gas Transportation undertakes all activities in such a way as to ensure that it minimizes impacts and complies with regulations.

### **Enbridge's Neutral Footprint Initiative**

As part of our Neutral Footprint Initiative, Enbridge has committed to:

- planting a tree for every merchantable tree the company removes; and
- helping to conserve an acre (or hectare) of land for every acre (or hectare) of natural habitat the company permanently impacts.

These measures will be implemented within five years of the impact occurring.

### ***Tree for a Tree***

Enbridge will plant a tree for every merchantable tree we remove to construct or expand our facilities or rights-of-way. The trees Enbridge counts and therefore replaces will be of adequate size to be considered "merchantable timber" as defined by the relevant local regulator.

Enbridge will replace trees from either forested or non-forested land (such as brush/scrub, prairie, grassland, alpine, rangeland, meadows, pasture or cultivated land). The company will plant them in such a way that it takes into account the following priority considerations:

1. Enbridge will plant trees to meet regulatory commitments and approval conditions.

2. Enbridge will plant trees to maintain slope stability, control erosion and meet reclamation guidelines and aesthetic requirements.
3. Enbridge will plant trees to meet the needs of local communities.

Enbridge will not always replace trees in the immediate area of impact, but will take into account land availability, local desire and consent. From the start of January 2009 through to the end of the second quarter of 2012, Enbridge had removed approximately 545,000 trees and had planted 375,000 tree seedlings. (Planting numbers lag removal numbers because in northern regions trees are removed during the winter season when the ground is frozen and seedlings are planted during the spring and summer.)

**Acre for an Acre**

Enbridge will help conserve an acre of natural habitat for every acre that it permanently impacts. The natural habitat Enbridge conserves could be forested land, wetlands or native prairie.

Enbridge will conserve the land while working with the Nature Conservancy of Canada (see below) and other organizations. As such, their guidelines and recommendations will determine how and where the land is conserved, and will ensure that it is of high ecological value.

The land Enbridge conserves may not be in the same area or region as the land that is impacted, and may not be “like for like.” Rather, Enbridge and our partners will make conservation decisions based on biological value and availability.

This commitment does not replace or negate Enbridge’s regulatory obligations to reclaim land when it is decommissioning an asset.

Since the beginning of 2009 through to the end of the second quarter of 2012, approximately 1,700 acres (approximately 690 hectares) of natural habitat have been disturbed and Enbridge has contributed to conserving over 5,260 acres (approximately 2,100 hectares). The surplus will be applied to future projects.

*Nature Conservancy of Canada / The Conservation Fund* – In early 2010, Enbridge invested \$2.5 million in support of the Nature Conservancy of Canada’s work to preserve and protect important and sensitive natural habitats across Canada. Through this investment, some of the best remaining wildlife habitat in Canada is being conserved. The investment is particularly significant at this time because, thanks to matching funds from sources including the Government of Canada’s Natural Areas Conservation Program, our contribution of \$2.5 million will trigger a conservation impact of more than \$10 million.

Similarly, in the United States in late 2011, Enbridge invested US\$3 million in The Conservation Fund, which partners with community, government and corporate organizations to help them fulfill their conservation priorities. This partnership will allow us to meet our acre-for-an-acre commitment in the U.S.

**EMISSIONS, EFFLUENTS AND WASTE**

**GHG EMISSIONS**

**EN16**

*Total direct and indirect GHG emissions by weight.*

**EN17**

*Other relevant indirect GHG emissions by weight.*

**Note regarding the tables below:**

The term “direct” emissions refers to emissions (fugitive, combustion, vented) that result from activities associated with company-owned facilities and from company-owned vehicles and are also sometimes referred to as Scope 1 emissions.

The term “indirect” emissions refer to emissions from purchased electricity where the emissions occur at facilities owned by a third party and are sometimes referred to as Scope 2 emissions.

## Liquids Pipelines

The tables below summarize total direct (Scope 1) and indirect (Scope 2) GHG emissions associated with Enbridge's Liquids Pipelines operations in Canada and the U.S. The emissions are measured by tonnes of carbon dioxide equivalent (t CO<sub>2</sub>e). In addition, estimated Scope 1 GHG emissions for Vector Pipeline Ltd., which is operated by the U.S. Liquids business unit, are provided in a separate table below.

Scope 1 (t CO <sub>2</sub> e)	2011	2010	2009	2008
Liquids Pipelines – Canada	12,388	12,367	11,971	12,693
Liquids Pipelines – U.S. <sup>1</sup>	7,282	5,758	2,980	9,639
<b>Total</b>	<b>19,670</b>	<b>18,125</b>	<b>14,951</b>	<b>22,332</b>

<sup>1</sup> The Scope 1 estimates for the U.S. subsidiaries include vehicle emissions and fugitives (CH<sub>4</sub> and CO<sub>2</sub>) from terminal operations. Line heater, fire pump, and emergency generator combustion-related GHG emissions are also included for Enbridge Energy, Limited Partnership. Currently, the Scope 1 inventory does not include emissions from space heating, water heating, and other small combustion sources; however, these sources are minor in terms of U.S. Liquids' total Scope 1 and 2 emissions profile.

Scope 2 (t CO <sub>2</sub> e)	2011	2010	2009	2008
Liquids Pipelines – Canada	1,114,698	1,138,296	1,103,801	1,041,923
Liquids Pipelines – U.S.	1,573,849	1,630,793	1,624,746	1,726,446
<b>Total</b>	<b>2,688,547</b>	<b>2,769,089</b>	<b>2,728,547</b>	<b>2,768,369</b>

Scope 1 (t CO <sub>2</sub> e)	2011	2010	2009	2008
Vector Pipeline L.P.	383,391	377,010	337,586	316,213

Table notes: The Scope 1 estimate for Vector Pipelines includes stationary combustion (primarily the gas-fired compressor turbines), vehicles and system vented and fugitive emissions. Some vented and fugitive source estimates are based on default industry (INGAA) emission factors. Scope 2 emissions for Vector Pipeline have not been estimated at this time, but would be comparatively minor relative to the company's Scope 1 emissions profile.

## Gas Transportation

Gas Transportation implemented a greenhouse gas database in 2010 to calculate CO<sub>2</sub>e emissions. GT's estimated emissions for 2011 were:

**Scope 1 – Direct** – 2,175,400 tonnes of carbon dioxide equivalent (t CO<sub>2</sub>e), compared with 1,020,388 tonnes in 2010. GT's Scope 1 estimate for 2011 combines combustion data calculations and estimates based on 2008 emissions data extrapolated to GT facilities extant in 2011. The GHG numbers in this CSR Report will not be the same as those reported by GT to the U.S. Environmental Protection Agency (U.S. EPA) in September 2012 for two main reasons: (1) the numbers in this report reflect emissions from all GT facilities, whereas the U.S. EPA only requires submissions from facilities that exceed reporting thresholds; and (2) the calculation method used for this report likely is different than that required by the U.S. EPA, which had not finalized its methodology at the time GT made these calculations

**Scope 2 – Indirect** – 311,846 t CO<sub>2</sub>e, compared with 95,327 t CO<sub>2</sub>e in 2010. The increase in GT's Scope 2 emissions in 2011 over previous years reflects GT's improved electricity consumption database, implementation of which began in the first half of 2011.



Scope 1 (t CO <sub>2</sub> e)	2011	2010	2009	2008
Gas Transportation	2,175,400	1,020,388	1,077,900	2,445,000
Scope 2 (t CO <sub>2</sub> e)	2011	2010	2009	2008
Gas Transportation	311,846	95,327	135,000	168,000

### Enbridge Gas Distribution

Enbridge Gas Distribution also operates three smaller gas distribution companies in New Brunswick (Enbridge Gas New Brunswick), Quebec (Gazifère) and upper New York state (St. Lawrence Gas). Each of these companies' emissions is about 1 per cent of those of Enbridge Gas Distribution. However, Enbridge continues to track these emissions by tonnes of carbon dioxide equivalent (t CO<sub>2</sub>e).

Scope 1 – Direct Emissions (t CO <sub>2</sub> e)	2011	2010	2009	2008
Enbridge Gas Distribution	269,524	319,486	315,806	313,845

Table note: The net reduction in GHG emissions for the Enbridge Gas Distribution business units in 2011 over prior years reflects a variety of factors including the introduction of a new quantification method for buried pipe fugitive emissions, which resulted in a substantial reduction in the GHG emissions estimated for this source. Prior years' data (i.e. for the period from 1990 to 2010) have not been restated on a similar basis to reflect this new method and are therefore not fully comparable to the 2011 data.

Scope 2 – Indirect Emissions (t CO <sub>2</sub> e)	2011	2010	2009	2008
Enbridge Gas Distribution	2,164	2,616	2,653	3,773

### Renewable electricity generation

The following summarizes total direct (Scope 1) and indirect (Scope 2) GHG emissions associated with Enbridge's renewable electricity generation business unit.

Scope 1 (t CO <sub>2</sub> e)	2011
Renewable electricity generation	1,340

Scope 2 (t CO <sub>2</sub> e)	2011
Renewable electricity generation	892

Table note: This is the first time Enbridge has reported GHG emissions associated with the operations of its renewable electricity generation assets.

### Transportation sources

The following summarizes total direct (Scope 1) and indirect (Scope 2) GHG emissions associated with Enbridge's airplanes and ground transportation.

Scope 1 (t CO <sub>2</sub> e)	2011
Transportation sources	2,509

Table note: In previous CSR reports, emissions data for the company's corporate jet and mobile sources were included in the data of Enbridge's Liquids Pipelines business unit.

## EN18

*Initiatives to reduce GHG emissions and reductions achieved.*

### Enbridge's position on climate change and carbon pricing

Enbridge's Climate Change Policy recognizes that climate change is a critical global issue. We also acknowledge that dealing with climate change is a shared responsibility with implications for citizens, governments and business. Enbridge is committed to being part of a collaborative solution. We recognize that meaningful GHG reductions will require governments to collaborate with both industry and the consuming public to establish clear, realistic GHG emissions objectives, public policies and effective regulations.

Through public policies, a defined price for CO<sub>2</sub> emissions should be established and compliance options should focus on promoting both near-term reductions and the advancement of technology for larger future reductions.

With respect to a cap-and-trade system versus a carbon tax, both approaches could establish a carbon price. The former results in emissions certainty, whereas a tax creates price certainty. Enbridge recognizes that the two market instruments are not mutually exclusive. However, given that the operational infrastructure required for a cap-and-trade system does not currently exist and that taxation schemes are well established, it is very likely that a carbon tax would be significantly less expensive, as well as being more transparent to administer.

### **Our Targets**

As part of our commitment to conduct business in an environmentally sustainable way, we set targets to lower our Canadian direct greenhouse gas emissions.

In 2005, Enbridge achieved its corporate target to reduce its Canadian direct GHG emissions by 15 per cent below 1990 levels. The company actually achieved an 18 per cent reduction.

Enbridge subsequently set a new reduction target for the 2010 inventory year of 20 per cent below 1990 levels and in 2011 we determined that we had achieved a 21 per cent reduction below 1990 levels, primarily through upgrading facilities and equipment. We achieved these reductions at the same time as increasing pipeline throughput by 47 per cent.

Enbridge continues to evolve its Carbon Management Strategy that will include further actions to reduce its own direct emissions. As the majority of the company's direct emissions emanate from its Canadian Gas Distribution and Services and U.S. Gas Transportation business units, the company is focused on finding ways to reduce those emissions.

Enbridge will set future targets for reducing direct emissions from its assets once it has fully completed an emissions inventory and once there is greater clarity regarding the regulatory framework(s) emerging across the North American jurisdictions where the company has operations.

With regards to completing an emissions inventory, Enbridge is designing and installing an emissions data management system. We anticipate that Phase 1, covering GHG emissions, will be operational in the fourth quarter of 2012. We expect Phase 2, which will manage criteria air contaminant emissions data, to be operational by the third quarter of 2013. The system will facilitate compliance with emissions reporting requirements in both Canada and the United States.

### **Enbridge Gas Distribution's GHG Reduction Initiatives**

Since the early 1990s, Enbridge Gas Distribution (EGD) in Ontario has undertaken many initiatives to reduce GHG emissions from its natural gas distribution operations. The largest of these initiatives is the multi-year, multi-million dollar cast iron replacement program, which is scheduled for completion in 2012. In 2011, EGD replaced 70 kilometres (43 miles) of cast iron mains, reducing annual GHG emissions by an estimated 4,800 tonnes of carbon dioxide equivalent (t CO<sub>2</sub>e). This cast iron pipe program has delivered an estimated cumulative reduction in annual emissions of 115,000 t CO<sub>2</sub>e. EGD has also replaced the high-bleed pneumatic devices that vent natural gas to the atmosphere as part of their normal operating procedure with devices that are low or no bleed, and reduced the venting associated with odorant pumps. These efforts have reduced annual GHG emissions levels from pneumatic equipment by 16,800 t CO<sub>2</sub>e, a 96 per cent decrease over 1990 levels.

Ongoing efforts to save energy and reduce GHG emissions from line heater fuel use—for example, the installation of new heater technologies and application of improved temperature control strategies—also continue to yield reductions. The most recent three-year average of line heater GHG emissions is 7,400 t CO<sub>2</sub>e below 2000 levels, which represents a 69 per cent reduction in emissions. This significant reduction is attributed in part to these efficiency efforts and in part to external variables such as lower natural gas transmission system delivery pressures.

EGD's management of GHG emissions from its operations extends to many other activities that are more difficult to quantify. For example, emissions from third-party damages are reduced through public awareness campaigns, the "Ontario One Call" service and installation of excess flow valves on all new service line installations. Also, newer station designs now incorporate more welded connections, reducing the number of threaded or flanged connections where fugitive emissions can occur.

Approximately 95 per cent of EGD's light-duty fleet vehicles, as well as six of its heavy-duty dump trucks, run on natural gas, reducing EGD's GHG emissions compared to operating them on gasoline and diesel. Also, through aggressive energy-efficiency upgrades, energy use and GHG emissions at EGD's Toronto-area, five-story headquarters are now lower than in 1977 when the building was only two stories high.

### **Carbon Dioxide Sequestration**

Carbon capture and sequestration (CCS) involves capturing carbon dioxide (CO<sub>2</sub>) from large industrial sources before it is emitted into the atmosphere. Once captured, CO<sub>2</sub> can be safely and permanently stored in deep geological formations or injected into mature oil reservoirs to enhance oil recovery.

Enbridge has been involved in several initiatives in Canada that have been investigating the feasibility of the long-term commercial sequestration of CO<sub>2</sub> in deep saline aquifers.

CO<sub>2</sub> capture, pipelining and sequestration developments are widely considered to be one of the most immediate, feasible and meaningful ways to reduce greenhouse gas emissions on a large scale and address the challenges posed by climate change.

These initiatives could play a major role in advancing industry and government's knowledge of CO<sub>2</sub> capture and sequestration.

#### ***Project Aquistore (Saskatchewan)***

Enbridge is participating in Project Aquistore, a collaborative effort among government, industry and research institutions to demonstrate that storage of CO<sub>2</sub> in deep geologic formations is a safe, effective solution for greenhouse gas emissions reduction.

This integrated carbon capture, transportation, injection and storage project will see CO<sub>2</sub> captured from a source in southeast Saskatchewan. This is targeted to begin in 2014. Approximately 500 to 1,000 tonnes per day will be transported via pipeline for injection into a nearby deep saline formation at 2,000 to 3,000 metres in depth. Results of the project will be available for the benefit of future CCS projects, government policy and regulation development, and for large stationary industries to consider geological storage as an option for mitigating greenhouse gas emissions.

The project proponent is Petroleum Technology Research Centre and contributing partners include Sustainable Development Technology Canada, CCRL, SaskEnergy, Enbridge, the Government of Saskatchewan, SaskPower and Schlumberger.

#### ***Project Pioneer (Alberta)***

In April 2012, Project Pioneer's industry partners announced they will not proceed with this CCS project, which was to have been Canada's first fully-integrated carbon capture and storage project involving retro-fitting a coal-fired electricity generating plant.

Project Pioneer was a joint effort by TransAlta Corporation, Capital Power L.P., Enbridge Inc., and the federal and provincial governments to demonstrate the commercial-scale viability of CCS technology.

The first step and an essential part of the project was to prove the technical and economic feasibility of CCS through a front end engineering and design (FEED) study before making any major capital commitments.

Following the conclusion of the FEED study, the industry partners determined that, although the technology works and capital costs were in-line with expectations, the market for carbon sales and the price of emissions reductions were insufficient to allow the project to proceed.

Enbridge brought to Project Pioneer expertise in the design and construction of pipeline infrastructure, as well as extensive knowledge in CO<sub>2</sub> sequestration.

#### ***CO<sub>2</sub> Slurry Project (Alberta)***

The CO<sub>2</sub> Slurry Pipeline Project is an industry consortium initiative being led by Enbridge to build a CO<sub>2</sub> slurry pipeline in Alberta.

In March 2010, the Government of Alberta announced that it had awarded Enbridge funding of \$1 million for the "CO<sub>2</sub> Slurry Pipeline Research Initiative" under the government's Clean Air and Climate Change: Technology and Innovation Program.

The "CO<sub>2</sub> Slurry Pipeline Research Initiative" represents Phase 1 of the three-phase CO<sub>2</sub> Slurry Pipeline Project. Phase 1 has involved demonstrating proof of the concept, as well as demonstrating the technical viability of a long-distance CO<sub>2</sub> slurry pipeline for transporting petroleum coke, sulphur and other solids, such as limestone. A report on the results and recommendations regarding Phase 1 is expected before the end of 2012.

By providing a useful purpose for CO<sub>2</sub>, companies such as oil sands producers can offset some of the costs associated with capturing and storing it. They can also create new markets for products (such as sulphur, petroleum coke and limestone) that are in demand throughout the world, but that have been stranded from their markets due to a lack of suitable transportation infrastructure. In addition, a slurry pipeline will help industry benefit the environment. CO<sub>2</sub> that would otherwise be emitted into the atmosphere would be used to transport goods. Once that objective has been met, the CO<sub>2</sub> would then be pipelined to sites where it could be used for enhanced oil recovery, or to areas where it could be permanently sequestered in deep saline aquifers.

## **OZONE DEPLETING SUBSTANCES**

### **EN19**

#### *Emissions of ozone-depleting substances by weight.*

While Enbridge continues to use halocarbon-containing equipment (in some vehicles, drinking water fountains, refrigeration and air conditioning systems), the company no longer has any infrastructure containing a significant quantity of ozone depleting substances. Enbridge had no reportable releases in 2011.

Liquids Pipelines has an ozone-depleting Substances Environmental Management Plan in place for its Canadian operations. The plan includes phase-out of halon-containing fire extinguishing equipment and a commitment to find alternatives to minimize Enbridge's use of other ozone-depleting substances. Enbridge reviews the plan every three years and updates it as necessary to reflect changes in the company's inventory and changes in applicable legislation. The plan was updated in 2011.

Enbridge Gas Distribution does not have ozone-depleting substances in its fire suppressant equipment and reported zero emissions of ozone-depleting substances in 2011.

## **EMISSIONS**

### **EN20**

#### *NO, SO and other significant air emissions by type and weight.*

#### **Enbridge's Impacts**

The major air emissions released by Enbridge facilities include methane, carbon monoxide, nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs). Other contaminants released, but in much smaller quantities, include sulphur dioxide (SO<sub>2</sub>), hydrogen sulphide and particulate matter and hazardous air pollutants such as hexane.

We work to keep air emissions from our operations below regulated limits. In some cases, we have exceeded regulatory requirements and have installed environmentally friendly technologies in our facilities that reduce air contaminant emissions. The largest source of VOC emissions from Enbridge's Liquids Pipelines operations is from tank storage.

#### **Reporting Criteria Air Contaminants**

Criteria air contaminants (CAC) are a group of common air pollutants released from sources, including incineration, industrial production, fuel combustion and transportation vehicles. Enbridge has established programs that define its roles, responsibilities and timelines for reporting its CAC emissions to various government agencies in Canada and the U.S.

In Canada, Liquids Pipelines and Enbridge Gas Distribution track and report annual CAC emissions under the National Pollutant Release Inventory. The air contaminants covered under the regulation include NO<sub>x</sub>, SO<sub>2</sub>, VOCs, carbon monoxide and particulate matter. In the U.S., Enbridge Liquids Pipelines monitors and reports on CAC emissions in compliance with state and federal regulations.

#### **Liquids Pipelines**

With the completion of the first phase of Enbridge Liquids Pipelines' contract tankage project in Hardisty, Alberta, in 2009, Enbridge and other industry partners established an ambient air monitoring network to monitor the air quality in the area. 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, Enbridge conducts semi-annual head space air sampling on each storage tank to ensure emission-control devices are functioning.

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

In the U.S., Enbridge tracks and reports to the Environmental Protection Agency's Toxic Release Inventory and to state regulators on VOC emissions for Liquids Pipelines terminals.

Liquids Pipelines 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 Transportation

Enbridge's Gas Transportation business unit is continually looking for opportunities to upgrade its gas facilities and pipelines in ways that contribute to operating, environmental and safety goals. One example is acid gas injection, which uses advanced technology to compress acid gas, primarily hydrogen sulphide and carbon dioxide, and inject the gases into suitable underground reservoirs, thereby avoiding emissions to the atmosphere.

Enbridge opened its second acid gas injection well near the Aker Treating Plant in 2006. In 2011, the facility injected 45,434 tonnes of carbon dioxide and avoided 304 tonnes of sulphur dioxide that would have resulted from a traditional gas treating facility.

The following criteria pollutant emissions were reported by the Gas Transportation facilities that are required to provide emission inventories:

Gas Transportation (tonnes)	2011	2010	2009	2008
CO	1,816	2,085	2,299	2,965
NO <sub>x</sub>	3,094	3,266	3,745	4,131
VOCs	1,405	1,811	1,044	1,208
SO <sub>2</sub>	311	764	648	1,329

## Enbridge Gas Distribution

In Canada, Enbridge Gas Distribution (EGD) reports annual criteria air contaminant emissions under the National Pollutant Release Inventory (NPRI). The air contaminants covered under the regulation include NO<sub>x</sub>, SO<sub>2</sub>, VOCs, carbon monoxide and particulate matter. EGD reports on three locations—Chatham and Corunna, both of which are natural gas compressor stations; and Seckerton, which is an oil battery. Emissions are calculated using emission factors or site/equipment specific data.

Enbridge Gas Distribution (tonnes)	2011	2010	2009	2008
CO	152	86	123	139
NO <sub>2</sub>	323	246	199	214
VOCs	22	15	9	12

## EFFLUENTS

### EN21

*Total water discharge by quality and destination.*

Enbridge's operations use only a small amount of water, as the company does not use it to transport liquid hydrocarbons or natural gas.

Enbridge occasionally acquires and discharges water to hydrostatically test the integrity of new or existing pipelines and tanks. Since existing pipeline sections have transported liquid petroleum or natural gas, the company analyzes and treats this test water, as needed, before returning it to the environment. Water returned to source meets discharge criteria established by local regulatory.

Please see the "Water" section (EN8) in this report for more information.

## **WASTE**

### **EN22**

*Total weight of waste by type and disposal method.*

Enbridge's operations produce mostly non-hazardous wastes consisting of paper, scrap metals, package materials and construction-related materials. Typically, Enbridge's operations generate only limited amounts of hazardous wastes.

Enbridge promotes consistent waste management practices across the company's businesses.

Overall, Enbridge makes every effort to reduce and minimize its waste volumes, regardless of hazard classification, through measurement and management programs at its various facilities. The company also tries to find beneficial ways to reuse waste by-products.

The development of waste management tracking and training programs helps employees not only meet regulations, but more effectively recover waste.

Following are some examples of Enbridge's waste management and minimization practices:

- Liquids Pipelines' operations in the U.S. provide employees across all of its operating areas site-specific guidance to help ensure sound waste management handling and disposal.
- Liquids Pipelines' Edmonton Facilities Operations team has:
  - Implemented a garbage-bag reduction program in all downtown Edmonton buildings, and to lessen the number of garbage bags thrown away each day by the cleaners, we have asked them to dump the garbage instead and only replace the bags if there is wet garbage.
  - Implemented a blue-bag recycling program in the Enbridge Place and Enbridge Tower buildings.
  - Switched out standard products offered for kitchen and cleaning (e.g., dish soap, cloths, wipes) with only green alternatives and we are expanding this into other areas such as pens, folders, etc. where possible.)
  - Implemented a TeraCycle program—recycling pens to be up cycled into products for resale.
  - Begun providing dishware and flatware for all newly renovated floors to discourage use of disposable products such as paper cups and plates, plastic cutlery, etc.
- Enbridge Gas Distribution reports liquid and solid hazardous waste and liquid industrial non-hazardous waste to the Ontario Ministry of the Environment's Hazardous Waste Information Network. These registerable wastes are generated through operation of EGD's facilities, as well as through its field operations.

## **SPILLS AND RELEASES**

### **EN23**

*Total number and volume of significant spills.*

### **EN24**

*Weight of transported, imported, exported, or treated waste deemed hazardous under the terms of the Basel Convention Annex I, II, III and VIII, and percentage of transported waste shipped internationally.*

### **EN25**

*Identity, size, protected status and biodiversity value of water bodies and related habitats significantly affected by the reporting organization's discharges of water and runoff.*

As the operator of one of the world's largest and most complex energy delivery systems, our job is to deliver the energy North Americans need in the safest, most reliable and most efficient way possible. For us, doing our job well is the basis of corporate social responsibility. It is also our ongoing commitment to each and every one of our stakeholders.

Enbridge's goal is—and will always be—to prevent all spills, leaks and releases from our energy transportation and distribution systems. No spill will ever be acceptable to us and we are more determined than ever to meet our

goal of zero incidents. The safety and integrity of our operations remains our highest priority.

The vast majority of the spills that Enbridge does experience:

- are small (less than 10 barrels each);
- occur at Enbridge facilities such as pump stations and terminals and are completely contained within those facilities and never leave the site; and
- are discovered very soon after they occur, which allows for rapid response and clean-up and results in low or no environmental impact.

Also, spills are infrequent relative to the volume of liquids products that Enbridge transports. Typically, Enbridge safely delivers over 99.999 per cent of the volume it ships in any given year. For example:

- Over the past 10 years, Enbridge's Liquids Pipelines business unit has delivered almost 12 billion barrels of crude oil and liquids with a safe delivery record of 99.999 per cent.
- In 2011, Liquids Pipelines transported over 1.6 billion barrels of crude oil and liquids and recorded 58 reportable spills representing a total of 2,284 barrels. In other words, Liquids Pipelines safely delivered 99.9999 per cent of the substantial volume it shipped in 2011, which is consistent with Liquids Pipelines' safe-delivery performance in prior years. Of those 58 spills, 49 of them, or approximately 85 per cent, had a volume of 10 barrels or less; 50 of them, or approximately 86 per cent, occurred at Enbridge facilities; and eight of them, or approximately 14 per cent, occurred on Enbridge rights-of-way. Liquids Pipelines' spill volume in 2011 of 2,284 barrels represents this business unit's lowest annual spill volume of the past 10 years.

With that said, no incident is acceptable to us. We have always, and we will continue to, go to great lengths to investigate and understand every release incident and apply what we learn to ensure continued improvement.

### **Spill Prevention**

We implement rigorous measures during design, construction and operation of our pipelines to prevent spills from occurring. These measures include avoidance of environmentally sensitive areas, meeting all special design requirements for areas such as road, river and creek crossings, and investing heavily in pipeline safety and integrity programs. While these measures contribute to reducing the risk of a release, they cannot eliminate it.

In order to address these residual risks, we have comprehensive spill response and environmental mitigation plans in place to respond rapidly and completely if spills do occur. No matter what the size or location of the spill, we take every incident very seriously and treat it as a top priority.

### **Responding to Spills**

When Enbridge experiences a spill, the company's highest priority is the safety and protection of people and the environment and the rapid response and thorough containment and clean-up in such a way as to minimize the impacts. Following are the typical steps that Enbridge takes in responding to an oil spill:

- Containment is the first order of business as Enbridge works to address the environmental impact. Simply put, the smaller the area that is touched by the oil, the less damage is done and the easier it is to clean up.
- As it contains the oil, Enbridge works to capture it and safely remove it from the environment. As it removes the oil, Enbridge is very careful to keep it from spreading to uncontaminated vegetation, water or soil.
- For the vast majority of spills, whether they are large or small, Enbridge recovers a high percentage of the oil and injects it back into the pipeline.
- Water, soil and vegetation that have come into contact with oil is typically removed and disposed of at an appropriate waste disposal facility. As affected water, soil and vegetation are removed, Enbridge is very careful not to spread the oil to uncontaminated areas. The company establishes what needs to be removed based on a comprehensive clean-up plan, environmental testing and monitoring, physical inspection and guidance from government regulators.
- Enbridge works closely with wildlife experts to minimize impacts on wildlife and assist and rehabilitate animals that have come in contact with oil.

We develop plans for remediation and reclamation with the input of affected stakeholders and environmental regulators. Our goal is to address the requirements of all regulators and stakeholders and to restore the area as closely as possible to its pre-spill condition or to a state that is acceptable to the local community.

Each release occurrence is investigated to determine a root cause and findings are incorporated into the company's Integrity Management programs.

For a detailed report on Enbridge's ongoing initiatives to mitigate the environmental impacts of our services, including

pipeline and system integrity initiatives, spill mitigation, and spill preparedness and response measures, please see “Products and Services – EN26/EN27 – Pipeline and System Integrity” below.

## **ENBRIDGE’S PERFORMANCE – 2011 REPORTABLE SPILLS**

In this section, we report 2011 spills firstly on a company-wide basis and secondly by three of our business units—Liquids Pipelines; Gas Transportation; and Enbridge Gas Distribution.

### **Definitions**

Technically, a reportable spill, leak or release is one that is large or significant enough that the company is required to formally notify a regulatory agency. (Enbridge uses the terms “spills,” “leaks” and “releases” interchangeably.) Despite this technical definition, as part of our efforts to continually improve our operations, we record and address even small releases that we are not required to report to regulators.

### **Notes regarding the tables in this section:**

- “Onsite” refers to spills that occurred at Enbridge facilities. Most onsite spills are completely contained within the company’s facilities and are quickly cleaned up with minimal or no environmental impact.
- “Offsite” refers to spills that occurred on Enbridge rights-of-way.
- A reportable spill, leak or release is one that meets the requirements for formal notification to a regulator.

## **2011 REPORTABLE SPILLS – COMPANY-WIDE**

Enbridge company-wide had a total of 94 reportable spills, leaks and releases in 2011 totaling approximately 2,366 barrels (Liquids Pipelines: 2,283.5 barrels; Gas Transportation: 47.07 barrels; Enbridge Gas Distribution: 35 barrels). Of the 94 spills:

- 82 of them or approximately 87 per cent had a volume of 10 barrels or less;
- 53 of them or approximately 56 per cent occurred at Enbridge facilities (“onsite”); and
- 41 of them or approximately 44 per cent occurred on Enbridge rights-of-way (“offsite”).

### **2011 REPORTABLE SPILLS, LEAKS AND RELEASES – COMPANY-WIDE**

	0-1 bbls	2-10 bbls	11-100 bbls	>100 bbls
Onsite	26	17	9	1
Offsite	30	9	1	1
Sub-total	56	26	10	2
<b>Total</b>	<b>94</b>			

### **REPORTABLE SPILLS, LEAKS AND RELEASES (COMPANY-WIDE) – FIVE-YEAR CONSOLIDATED DATA**

Year	Total Number of Spills	Total Spills Volume (bbls)
2011	94	2,366
2010	91	34,258
2009	103	8,441
2008	92 <sup>1</sup>	2,842
2007	65	13,772

<sup>1</sup> Adjusted down from the 93 spills reported in Enbridge’s 2009 CSR Report because one Enbridge Gas Distribution planned and permitted release of water in 2008 was incorrectly counted as a spill.

## **2011 REPORTABLE SPILLS – LIQUIDS PIPELINES**

In 2011, Liquids Pipelines transported over 1.6 billion barrels of crude oil and liquids on its systems in Canada and the U.S. and recorded 58 reportable liquid spills, leaks or releases totaling approximately 2,284 barrels—the business unit’s lowest annual spill volume of the past 10 years. In the U.S. in 2011, Enbridge had zero PHMSA\*-reportable spills (spills above 5 barrels) from its onshore liquids pipelines, including valve sites. (\*PHMSA: Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation)



Of Liquids Pipelines' 58 spills:

- 49 of them or approximately 85 per cent had a volume of 10 barrels or less;
- 50 of them or approximately 86 per cent occurred at Enbridge facilities ("onsite"); and
- 8 of them or approximately 14 per cent occurred on Enbridge rights-of-way ("offsite").

Please see below for reports on Liquids Pipelines' significant spills in 2011 and the first half of 2012, as well as an update on Enbridge's response to the leak in July 2010 of approximately 20,000 barrels of crude oil on Enbridge's Line 6B pipeline near Marshall, Michigan.

#### LIQUIDS PIPELINES – 2011 REPORTABLE SPILLS BY VOLUME AND LOCATION

	0-1 bbls	2-10 bbls	11-100 bbls	> 100 bbls
Onsite	26	16	7	1
Offsite	3	4	0	1
Sub-total	29	20	7	2
<b>Total</b>	<b>58</b>			

#### LIQUIDS PIPELINES – VOLUME OF TOTAL REPORTABLE SPILLS

Year	Total Number of Spills	Total Spills Volume (bbls)
2011	58	2,283.5
2010	80	34,122
2009	89	8,353
2008	80	2,681
2007	59	13,756 <sup>1</sup>

<sup>1</sup> Total Spills Volume in 2007 has been adjusted upward from the 11,956 barrels reported in the 2009 CSR Report because a volume correction for one spill that occurred in 2007, which was included in the 2008 CSR Report, was inadvertently omitted in the 2009 CSR Report.

## REPORTABLE SPILLS HISTORY – LIQUIDS PIPELINES

Over the past 10 years, Enbridge's Liquids Pipelines business unit has delivered almost 12 billion barrels of crude oil and liquids with a safety record of 99.9992 per cent. Most of Liquids Pipelines' spills are less than a barrel and occur inside pump stations ("onsite") where any spilled oil is readily contained and recovered without entering the natural environment.

LIQUIDS PIPELINES – VOLUME OF TOTAL REPORTABLE SPILLS COMPARED WITH TOTAL DELIVERY VOLUME – 2002 TO 2011					
Year	Total Number of Spills (Onsite / Offsite) <sup>1</sup>	Total Spills Volume (barrels) (Onsite / Offsite) <sup>1</sup>	Total Annual Delivery Volume (barrels)	Percentage of Annual Delivery Volume Safely Delivered (%)	Percentage of Annual Delivery Volume Safely Delivered (%) excluding Onsite <sup>1</sup> Spill Volumes
2011	58 (50 / 8)	2,284 (637 / 1,646)	1,641,262,240	99.9999	99.9999
2010	80 (61 / 19)	34,122 (2,710 / 31,412)	1,487,709,454	99.9977	99.9998
2009	89 (83 / 6)	8,353 (6,524 / 1,829)	1,333,947,614	99.9994	99.9995
2008	80 (72 / 8)	2,681 (2,587 / 94)	1,256,268,675	99.9998	99.9998
2007	59 (52 / 7)	13,756 (902 / 12,854)	1,199,657,322	99.9989	99.9999
2006	62 (54 / 8)	5,434 (3,177 / 2,258)	1,198,602,588	99.9995	99.9997
2005	70 (63 / 7)	9,825 (9,448 / 377)	1,060,531,358	99.9991	99.9991
2004	64 (45 / 19)	3,114 (318 / 2,796)	1,123,230,798	99.9997	99.9999
2003	58 (41 / 17)	6,377 (6,142 / 235)	867,686,223	99.9993	99.9993
2002	46 (38 / 8)	14,680 (7,944 / 6,734)	733,440,396	99.9980	99.9989
<b>TOTAL</b>	<b>666 (559 / 107)</b>	<b>100,626 (40,389 / 60,237)</b>	<b>11,902,336,668</b>	<b>99.9992 (average over 10 years)</b>	<b>99.9997 (average over 10 years)</b>

<sup>1</sup> "Onsite" refers to spills that occurred at Enbridge facilities. Most onsite spills are completely contained within the company's facilities and are quickly cleaned up with minimal or no environmental impact. "Offsite" refers to spills that occurred on Enbridge rights-of-way.

## **ENBRIDGE'S LIQUIDS PIPELINES SPILLS PERFORMANCE COMPARED WITH CANADA AND U.S. PIPELINE INDUSTRY**

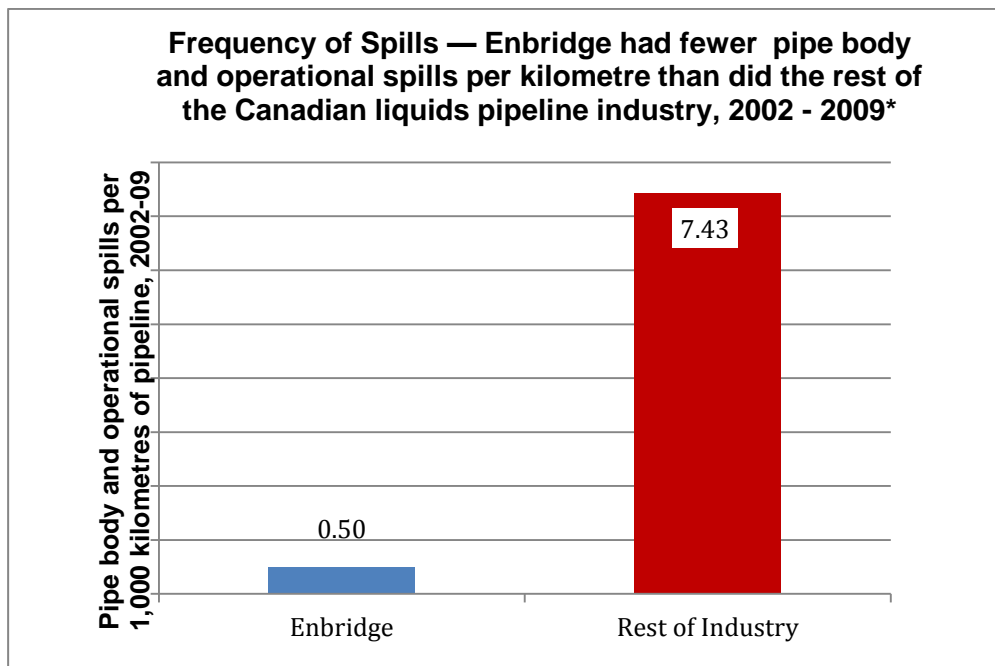
### **Canada (2002-2009)**

Comparing Enbridge's Liquids Pipelines performance to that of the rest of the Canadian pipeline industry, in the period 2002 to 2009:

#### Frequency of Spills Comparisons

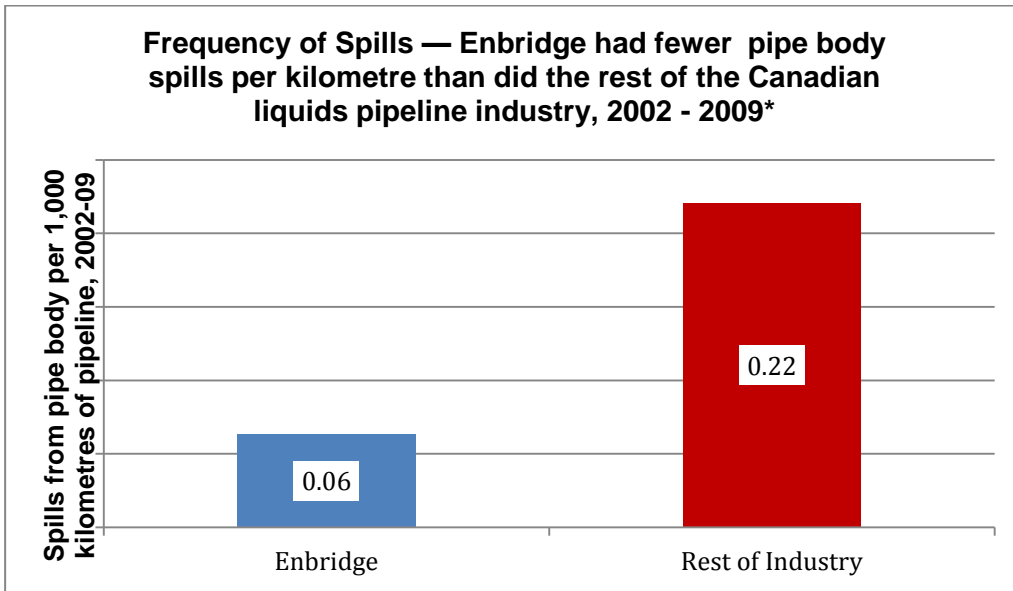
- Enbridge experienced 0.5 spills (including pipe body and operational spills) per 1,000 kilometres of pipeline, compared with an average of 7.43 spills (including pipe body and operational spills) per 1,000 kilometres of pipeline for the rest of the liquids pipeline industry in Canada. In other words, Enbridge's pipe body and operational spill frequency was approximately 93 per cent better than that of the rest of the industry.

[Note: A "pipe body" spill is a spill that originates from the body of the pipe. An "operational spill" is a spill that originates from a pipeline component such as a flange, valve, pump or storage tank.]



\* These data pertain to pipe body AND operational spills (spills that originate from pipeline components such as flanges, valves, pumps or storage tanks). The data include spills of 1.5 m<sup>3</sup> (9.43 barrels) or more. "Frequency of Spills" refers to the number of events. This comparison is based on data that Enbridge and other liquids pipeline operators submitted to Canada's Transportation Safety Board (TSB). The data for the industry as a whole are available through Canada's National Energy Board (NEB). At the time of publishing this report, data were available only up to and including 2009. The data pertain only to the liquids pipelines in Canada that are federally regulated (i.e. the liquids pipelines that cross provincial or national boundaries). In Enbridge's case, the data pertain to our Enbridge Pipelines Inc., Westspur, Southern Lights and Norman Wells pipelines. This bar graph shows the relationship between Enbridge's pipe body and operational spill frequency ratio and that of the rest of the federally-regulated Canadian liquids pipeline industry.

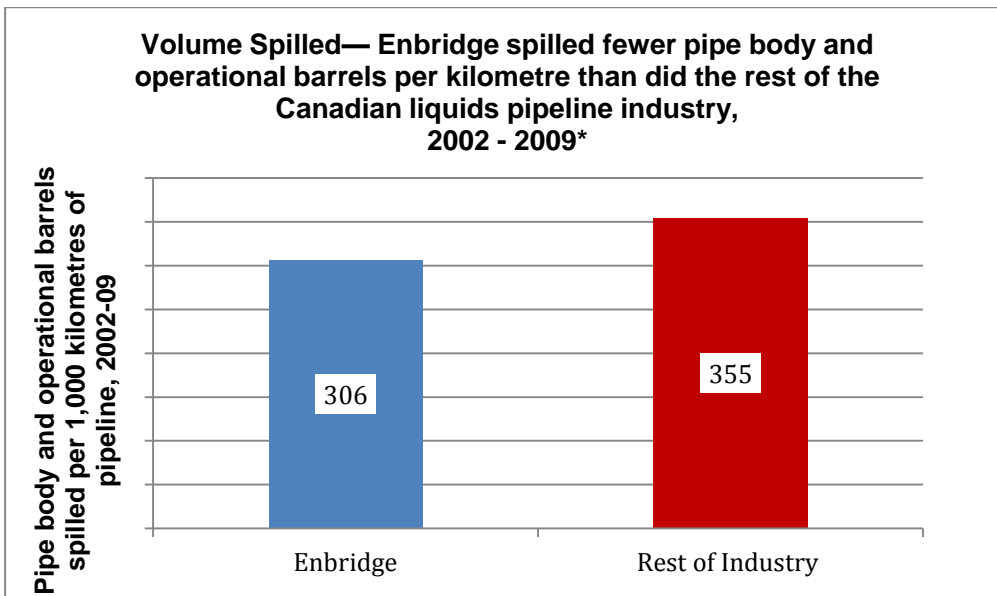
- Enbridge experienced 0.06 spills (including only pipe body spills) per 1,000 kilometres of pipeline, compared with an average of 0.22 spills (including only pipe body spills) per 1,000 kilometres of pipeline for the rest of the liquids pipeline industry in Canada. In other words, Enbridge's pipe body spill frequency was about 70 per cent better than that of the rest of the industry.



\* These data pertain to pipe body spills only. Operational spills (spills that originate from pipeline components such as flanges, valves, pumps or storage tanks) are excluded from the data. The data include spills of 1.5 m<sup>3</sup> (9.43 barrels) or more. "Frequency of Spills" refers to the number of events. This comparison is based on data that Enbridge and other liquids pipeline operators submitted to Canada's Transportation Safety Board (TSB). The data for the industry as a whole are available through Canada's National Energy Board (NEB). At the time of publishing this report, data from the NEB were available only up to and including 2009. The data pertain only to the liquids pipelines in Canada that are federally regulated (i.e. the liquids pipelines that cross provincial or national boundaries). In Enbridge's case, the data pertain to our Enbridge Pipelines Inc., Westspur, Southern Lights and Norman Wells pipelines. This bar graph shows the relationship between Enbridge's pipe body spill frequency ratio and that of the rest of the federally-regulated Canadian liquids pipeline industry.

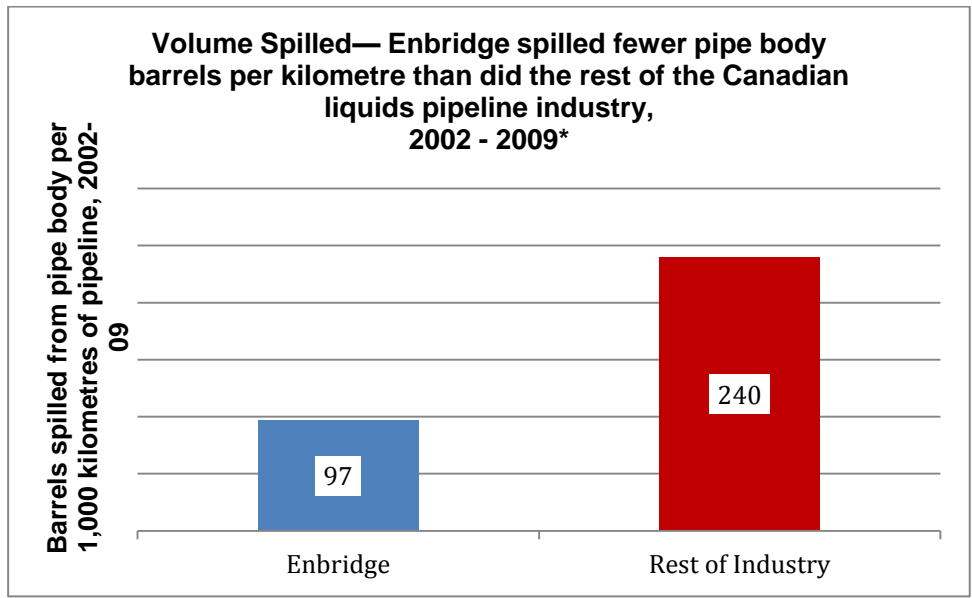
**Volume Spilled Comparisons**

- Enbridge spilled 306 barrels of liquids (including both pipe body and operational spills) per 1,000 kilometres of pipeline, compared with an average of 355 barrels of liquids (including both pipe body and operational spills) per 1,000 kilometres of pipeline for the rest of the Canadian liquids pipeline industry. In other words, Enbridge's pipe body and operational spill volume was about 14 per cent better than that of the rest of the industry.



\* These data pertain to pipe body AND operational spills (spills that originate from pipeline components such as flanges, valves, pumps or storage tanks). The data include spills of 1.5 m<sup>3</sup> (9.43 barrels) or more. "Frequency of Spills" refers to the number of events. This comparison is based on data that Enbridge and other liquids pipeline operators submitted to Canada's Transportation Safety Board (TSB). The data for the industry as a whole are available through Canada's National Energy Board (NEB). At the time of publishing this report, data were available only up to 2009. The data pertain only to the liquids pipelines in Canada that are federally regulated (i.e. the liquids pipelines that cross provincial or national boundaries). In Enbridge's case, the data pertain to our Enbridge Pipelines Inc., Westspur, Southern Lights and Norman Wells pipelines. This bar graph shows the relationship between Enbridge's pipe body and operational spill frequency ratio and that of the rest of the federally regulated Canadian liquids pipeline industry.

- Enbridge spilled 97 barrels of liquids (including only pipe body spills) per 1,000 kilometres of pipeline, compared with an average of 240 barrels of liquids (including only pipe body spills) per 1,000 kilometres of pipeline for the rest of the Canadian liquids pipeline industry. In other words, Enbridge's pipe body spill volume was about 60 per cent better than that of the rest of the industry.



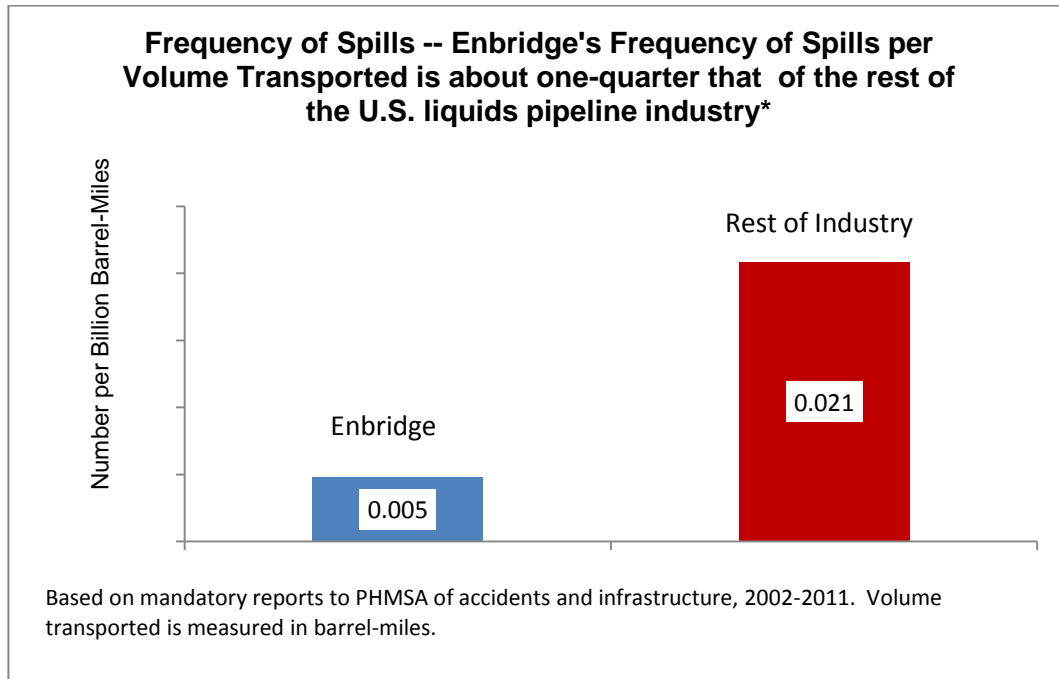
\* These data pertain to pipe body spills only. Operational spills (spills that originate from pipeline components such as flanges, valves, pumps or storage tanks) are excluded from the data. The data include spills of 1.5 m<sup>3</sup> (9.43 barrels) or more. "Frequency of Spills" refers to the number of events. This comparison is based on data that Enbridge and other liquids pipeline operators submitted to Canada's Transportation Safety Board (TSB). The data for the industry as a whole are available through Canada's National Energy Board (NEB). At the time of publishing this report, data from the NEB were available only up to and including 2009. The data pertain only to the liquids pipelines in Canada that are federally regulated (i.e. the liquids pipelines that cross provincial or national boundaries). In Enbridge's case, the data pertain to our Enbridge Pipelines Inc., Westspur, Southern Lights and Norman Wells pipelines. This bar graph shows the relationship between Enbridge's pipe body spill frequency ratio and that of the rest of the federally-regulated Canadian liquids pipeline industry.

**U.S. (2002-2011)**

Comparing Enbridge's Liquids Pipelines performance in the U.S. to that of the rest of the U.S. pipeline industry, in the period 2002 to 2011:

**Frequency of Spills Comparison**

- Enbridge experienced 0.005 spills per billion barrel-miles, compared with an average 0.021 spills per billion barrel-miles for the rest of industry. In other words, Enbridge's spill frequency was about 75 per cent better than that of the rest of the industry.
- While Enbridge compares favourably in terms of spill frequency to the rest of the U.S. liquids pipeline industry, it is important to note that the entire industry is improving. The number of annual spills that the U.S. liquids pipeline industry (onshore) experienced along their rights-of-way over the three-year period of 2008 to 2010 was 60 per cent less than the number that the industry experienced over the three-year period of 1999 to 2001. (Source: U.S. pipeline industry's voluntary Pipeline Performance Tracking System)

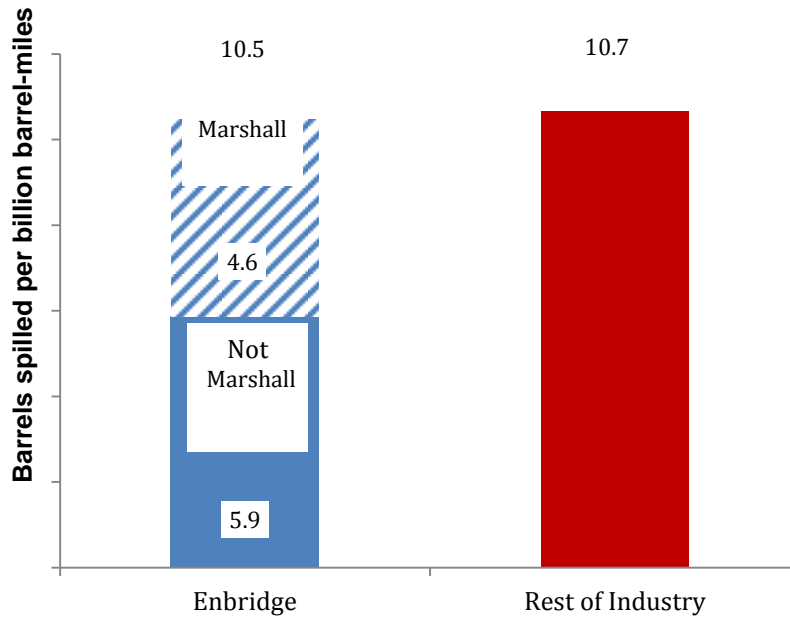


\* Spills from onshore pipelines, including valve sites. Spills that took place within stations or terminals on company property are excluded from the data. The data include spills of five barrels or more, or those involving a release to water, death, injury, fire explosion or damages exceeding US \$50,000; for smaller spills, operators were not required to specify the part of the system, such as onshore pipelines, including valve sites until 2010. "Frequency of Spills" is the number of events. "Volume Transported" refers to the total amount of petroleum liquids shipped in the U.S. between 2002 and 2011 in billion barrel-mile units. This bar graph shows the relationship between Enbridge's spill frequency per volume transported and that of the rest of the U.S. liquids pipeline industry. This comparison is based on data available through PHMSA's databases for its mandatory accident and mileage reports from operators (Forms 7000-1 and 7000-1.1).

#### Volume Spilled Comparison

- When the spill volumes associated with Enbridge's 2010 Marshall spill are included, Enbridge's spill volume between 2002 and 2011 was comparable to that of the rest of the U.S. liquids pipeline industry. When the Marshall spill volumes are excluded, Enbridge's spill volume during the same period was about 45 per cent better than the average spill volume of the rest of the U.S. industry.
- It is important to also note that the entire industry is improving. The number of barrels of liquids spilled by the U.S. liquids pipeline industry along their rights-of-way over the three-year period of 2008 to 2010 was 35 per cent less than the number of barrels spilled over the three-year period of 1999 to 2001. (Source: U.S. pipeline industry's voluntary Pipeline Performance Tracking System)

**Volume Spilled -- Including the 2010 Marshall spill, Enbridge's Volume Released per Volume Transported was about the same as the rest of the U.S. liquids pipeline industry, 2002 - 2011. Excluding the Marshall spill, it was about 45 per cent better.**



Based on mandatory reports to PHMSA of accidents and infrastructure, 2002-2011. Volume transported is measured in barrel-miles.

\* Spills from onshore pipelines, including valve sites. Spills that took place within stations or terminals on company property are excluded from the data. The data include spills of five barrels or more, or those involving a spill to water, death, injury, fire explosion or damages exceeding US \$50,000; for smaller spills, operators were not required to specify the part of the system, such as onshore pipelines, including valve sites until 2010. "Volume Spilled" is the number of barrels spilled. "Volume Transported" refers to the total amount of petroleum liquids shipped in the U.S. between 2002 and 2011 in billion barrel-mile units. The resulting bar graph shows the relationship between Enbridge's spill ratio and that of the industry. This comparison is based on the data available through U.S. Department of Transportation databases for its mandatory accident and mileage reports from operators (Forms 7000-1 and 7000-1.1).

## **SPILL COSTS – LIQUIDS PIPELINES – JULY 2010 TO JUNE 2012**

Note: Enbridge defines “significant spill” as any release greater than 100 barrels or that entails clean-up costs of \$1,000,000 or more.

### **Significant Spill in 2011**

Life-to-date costs incurred by Enbridge as a result of the one significant product leak that occurred across its entire Canada and U.S. liquids pipelines system in 2011 (the Norman Wells Pipeline leak; please see below for a report), total approximately \$40 million. This total includes internal and external costs relating to spill response, repair, clean-up and remediation activities.

### **Line 6B Spill (near Marshall, Michigan) – July 2010**

On July 26, 2010, a leak of approximately 20,000 barrels of crude oil occurred on Line 6B on Enbridge Energy Partners, L.P.’s (EEP) subsidiary’s Lakehead System near Marshall, Michigan. (Please see “Significant Spills Summary – Liquids Pipelines” below for more details).

During the second quarter of 2012, cleanup of the areas affected by the Line 6B release had been substantially completed, which allowed the Kalamazoo River and Morrow Lake to be re-opened for recreational use. EEP will continue to perform necessary remediation, restoration and monitoring of the areas affected by the Line 6B crude oil release. EEP expects to make payments for additional costs associated with submerged oil and sheen monitoring and recovery operations, including remediation and restoration of the area, air and groundwater monitoring, scientific studies and hydrodynamic modeling, along with legal, professional and regulatory costs through future periods. All the initiatives that EEP will undertake in the monitoring and restoration phase are intended to restore the crude oil release area to the satisfaction of the appropriate regulatory authorities.

On July 2, 2012, EEP received a Notice of Probable Violation (NOPV) from the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) related to the Line 6B crude oil release, which indicated a US\$3.7 million civil penalty. EEP agreed to pay the penalty proposed by PHMSA. EEP has included the amount of the penalty in its total estimated cost for the Line 6B crude oil release. In addition, on July 10, 2012, the U.S. National Transportation Safety Board (NTSB) presented the results of its investigation into the Line 6B crude oil release and subsequently posted its final report on July 26, 2012.

As a result of additional work needed as noted above and the civil penalty assessed by PHMSA, EEP has revised the total estimate for costs to US\$785 million (\$131 million after-tax attributable to Enbridge) for this incident, before insurance recoveries, and excluding fines and penalties which may be imposed by federal, state and local government agencies, other than the PHMSA civil penalty described above, as of June 30, 2012, an increase of US\$20 million from March 31, 2012. Expected losses associated with the Line 6B crude oil release include those costs that are considered probable and that could be reasonably estimated at June 30, 2012. Despite the efforts EEP has made to ensure the reasonableness of its estimates, there continues to be the potential for EEP to incur additional costs in connection with this crude oil release due to variations in any or all of the cost categories, including modified or revised requirements from regulatory agencies, in addition to fines and penalties and expenditures associated with litigation and settlement of claims.

### **Line 6A Incident (in Romeoville, Illinois) – September 2010**

On September 9, 2010, a leak of approximately 9,000 barrels of crude oil occurred on Line 6A on EEP’s Lakehead System in Romeoville, Illinois (please see “Significant Spills Summary – Liquids Pipelines” below for more details).

As at December 31, 2010, EEP estimated that before insurance recoveries, and not including fines and penalties, costs for emergency response, environmental remediation and cleanup activities associated with the Line 6A crude oil release would be approximately US\$45 million, excluding lost revenue of approximately US\$3 million.

As at December 31, 2011, EEP revised its cost estimate for this crude oil release to US\$48 million, before insurance recoveries and excluding fines and penalties. The US\$3 million increase was based on a refinement of future costs based on additional information.

EEP included those costs it considered probable and that it could reasonably estimate for purposes of determining its expected losses associated with the Line 6A crude oil release. The estimates do not include consideration of any unasserted claims associated with the release that later may become evident, nor has EEP considered any potential recoveries from third-parties that may later be determined to have contributed to the release. EEP is pursuing recovery of the costs associated with the Line 6A crude oil release from third parties; however, there can be no assurance that any such recovery will be obtained.



### **Future Costs and Liabilities**

Future costs associated with monitoring and rehabilitating affected areas are determined only after clean-up and assessment, which is often a multi-seasonal process. Liabilities such as fines and penalties are only determined subsequent to investigations and legal and regulatory processes. Therefore, total costs and liabilities cannot yet be determined for spills that occurred in 2010, 2011 and 2012.

## **SIGNIFICANT SPILLS SUMMARY – LIQUIDS PIPELINES – JULY 2010 TO JULY 2012**

### **Near Marshall, Michigan**

On July 26, 2010, a release of crude oil on Line 6B of Enbridge Energy Partners, L.P.'s (EEP) subsidiary's Lakehead system was reported near Marshall, Michigan. The company estimates that 3,180 m<sup>3</sup> (20,000 barrels) of crude oil leaked at the site, and of that an estimated 1,271 m<sup>3</sup> (8,000 barrels) reached Talmadge Creek, a tributary that feeds the Kalamazoo River. The released crude oil affected approximately 38 miles (61 kilometres) of area along the Talmadge Creek and Kalamazoo River waterways between Marshall and downstream of Battle Creek, Michigan. A multi-agency effort led by the U.S. Environmental Protection Agency (EPA), the Michigan Department of Environmental Quality (MDEQ), and other federal, state and local agencies are guiding the clean-up and remediation efforts.

The removal and replacement of the pipeline segment that failed was completed in 2010 under the supervision of the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA), which required Enbridge to perform specific tasks to ensure the safety of the pipeline before returning it to service. These steps were completed, and the pipeline was safely returned to service on September 27, 2010.

Enbridge and EEP conducted a detailed internal investigation of this incident in the weeks following the crude oil release and have made many enhancements to their processes, procedures and training as a result of the findings of their investigation, including in the company's Edmonton control centre. Incident prevention, detection and response have also been enhanced. On July 26, 2012, the U.S. National Transportation Safety Board (NTSB) released its report on its investigation into the Line 6B crude oil release. Enbridge and EEP committed to carefully examining the findings in the NTSB report and make further adjustments as necessary to the enhancements they have already made since the incident.

The Line 6B release was unprecedented for Enbridge and the company has taken full responsibility for the incident since the beginning, pledging that we would address the impacts of the release on the natural environment and would address the financial and other needs of individuals and businesses in the community.

During the winter and early spring of 2012, EEP continued to work closely with Michigan state and U.S. Environmental Protection Agency (U.S. EPA) officials on the final work in the Kalamazoo River. During this period, EEP completed the remediation of a number of smaller Kalamazoo River overbank sites, as well as the affected areas along Talmadge Creek.

On April 18, 2012, EEP announced that cleanup, under the direction of the U.S. EPA, had progressed to the point that a section of the Kalamazoo River had been opened for recreational use. The first section opened from the access site near Perrin Dam (Marshall Public Works building) to Saylor's Landing. Saylor's Landing is one of five new public river access sites that Enbridge has built for the community.

Then, on June 21, 2012, EEP announced that the Kalamazoo River and Morrow Lake were open for recreational use.

Even with the river open, EEP will continue to perform activities related to cleanup under the direction of the U.S. EPA and the MDEQ.

As part of the Corrective Action Order on Line 6B, PHMSA also directed Enbridge to replace a section of the pipeline located beneath the St. Clair River, which forms the border between Michigan and Ontario. A dent in that section had been confirmed during a 2009 in-line inspection. While the dent was most likely there since installation in the late 1960s, following the Marshall leak the public tolerance for any risk on Enbridge's system was understandably low and scrutiny by elected and regulatory officials was very high. Enbridge completed the repair in June 2011, well before the September 2011 PHMSA deadline.

For more detailed and up-to-date information about Enbridge's response to the Line 6B leak, please visit <http://response.enbridgeus.com/response/>.

### **In Romeoville, Illinois**

On September 9, 2010, a crude oil release from Line 6A of EEP's Lakehead System was reported in an industrial area of Romeoville, Illinois. The pipeline was shut down within minutes of the company being notified of the leak and the section of the pipeline where the leak occurred was isolated. Oil was released onto a roadway and then into a

storm water retention pond. Approximately 300 personnel and contractors were deployed to clean up and remediate the affected areas. Approximately 1,431 m<sup>3</sup> (9,000 barrels) of crude oil were released, of which approximately 222 m<sup>3</sup> (1,400 barrels) were removed from the pipeline as part of the repair. Excavation and replacement of the pipeline segment were completed and the pipeline was returned to service on September 17, 2010. The company has fulfilled its obligations under the clean-up and remediation order from the U.S. Environmental Protection Agency and is continuing to pursue final remediation obligations with the Illinois Environmental Protection Agency. The cause of the crude oil release is being investigated by the U.S. National Transportation Safety Board.

#### ***Near Wrigley, Northwest Territories***

On May 9, 2011, a leak occurred on Enbridge's Norman Wells Pipeline approximately 50 kilometres south of Wrigley and 150 kilometres south of Willowlake River in the Northwest Territories. The leak was reported to the Northwest Territories 24-hour Spill Report Line and Enbridge's emergency response plans were activated. It is estimated that 258.8 m<sup>3</sup> (1,628 barrels) of crude oil was released.

The site is located in a remote area with significant access restrictions, and the leak received substantial attention from regulators and local First Nations.

Enbridge implemented an aggressive response and remediation plan for the site, with the goal of removing all contamination and returning the site as close as possible to its pre-spill condition in a timely manner.

Excavation of all contaminated soils from the site was completed in late November 2011. These soils were staged at the leak site or an off-site staging area until highway and ice-road conditions would allow for transport to approved waste handling facilities for final disposal in January-April 2012.

The majority of site restoration work had been completed by spring 2012, with final restoration scheduled for completion during summer 2012.

In accordance with plans submitted to the National Energy Board, Enbridge will be monitoring groundwater in and around the former excavation area to confirm the successful removal of the groundwater impacts.

Monitoring of surface water, groundwater and reclamation success will continue until established goals have been achieved.

#### ***Near New Lenox, Illinois***

On March 3, 2012, two third-party vehicles left the end of a public road (T-intersection) within an industrial area and struck an above ground pig sending trap within an Enbridge fenced facility on Line 14/64 near New Lenox, Illinois.

A drain line on the bottom of the pig sending trap severed, and a release of crude oil and fire occurred.

Enbridge detected a pressure anomaly on Line 14/64, and the line was immediately shutdown and isolated by closing valves.

Local emergency responders notified Enbridge of the fire at its facility and the fire was subsequently extinguished.

The collision resulted in two fatalities at the scene; both were occupants of the third-party vehicles. To date, the status of any other occupants of the vehicles has not been confirmed.

An estimated 238.5 m<sup>3</sup> (1,500 barrels) of crude oil were released from the pig sending trap; of that amount, more than 190.8 m<sup>3</sup> (1,200 barrels) were estimated to have been consumed during the fire. The remainder of oil was contained within Enbridge property and clean-up activities were conducted with the oversight of the United States and Illinois Environmental Protection Agencies.

Sampling conducted after excavation activities were complete verified that the cleanup was a success. Community air monitoring identified no concerns. Enbridge anticipates having regulatory closure later in 2012.

An investigation of the incident was conducted by the local police department, and Enbridge is conducting an internal investigation.

#### ***Near Elk Point, Alberta***

On June 18, 2012, approximately 230 m<sup>3</sup> (1,446 barrels) of crude oil leaked at Enbridge's Elk Point Pump Station on Line 19 (Athabasca Pipeline) near the town of Elk Point, Alberta.

At approximately 5:41 a.m. MST on June 18, Enbridge's monitoring system detected a drop in pressure indicating a possible oil release on Line 19. At 5:51 a.m. MST, the Enbridge pipeline control centre initiated a shutdown of the line and isolation of Elk Point Pump Station. Enbridge immediately contacted local emergency response organizations and notified civic authorities and regulatory agencies. The area was secured and clean-up operations began immediately. There was no risk to public health or safety. No water or wildlife was impacted.

The release was largely contained within the pumping station site. Approximately 200 m<sup>3</sup> (1,258 barrels) were contained on the Enbridge site and approximately 30 m<sup>3</sup> (188 barrels) was released on an adjacent landowner's field.

Line 19 was safely restarted on the afternoon on June 18. However, the line was again shut down the afternoon of June 19 on the order of Alberta's Energy Resources Conservation Board (ERCB) as the ERCB and Enbridge continued their investigation. With the approval of the ERCB, Line 19 was safely restarted at approximately 23:30

MST on June 19, while the Elk Point Pump Station remained isolated and shut down pending investigation and completion of clean up and repairs. The cause of the release appeared to be a failure of a flange gasket in the pumping station. The flange gasket was replaced, all other gaskets were tested and station piping was fully inspected.

After receiving approval from the ERCB, Enbridge safely restarted the Elk Point Pump Station on June 24, and normal operations resumed.

Site cleanup was conducted in compliance with all applicable government regulations and Enbridge's own stringent standards for safety and the environment. All contaminated soil has been removed from onsite and offsite areas and disposed of at an approved waste management facility. A groundwater and surface water monitoring program has been implemented to confirm the absence of impacts to groundwater and surface water in the area of the release.

**Near Grand Marsh, Wisconsin**

On July 27, 2012, EEP reported a release of crude oil from Line 14 on its Lakehead System near Grand Marsh, Wisconsin.

Within minutes of detecting a pressure drop on the line, operators at the Enbridge Pipelines Control Centre shut down and isolated the line. Enbridge emergency crews were promptly deployed to the site.

The oil was contained in a field. The initial estimate of the volume released was approximately 190.8 m<sup>3</sup> (1,200 barrels). No one was injured. Enbridge's immediate focus was to keep its workers and the public safe as it worked to remove the oil and clean up the site. Enbridge notified and worked with emergency officials and the appropriate regulators.

On July 30, 2012, the Pipelines and Hazardous Materials Safety Administration (PHMSA) issued a Corrective Action Order with conditions to return Line 14 to service, and on August 1, 2012, PHMSA issued an amendment to the Corrective Action Order with additional restart conditions. Enbridge submitted the Restart Plan to PHMSA on August 1 and the Lakehead Plan to PHMSA on August 2. The Lakehead Plan describes improvements that will be made in operational areas on the Lakehead System along with other initiatives, many of which were already under way. PHMSA approved the amended return to service plan on August 6, 2012, and Enbridge safely restarted Line 14 on August 7, 2012.

At the time of preparing this report, the cause of the release had not been determined and was being investigated. The Wisconsin Department of Natural Resources had approved the Cleanup Plan and Enbridge was conducting cleanup and site restoration in compliance with all government regulations and our own stringent safety and environmental standards. Although there had been no groundwater impact, we were monitoring nearby drinking wells as a precaution.

**2011 REPORTABLE RELEASES – GAS TRANSPORTATION**

In 2011, Gas Transportation had 11 reportable releases totaling 47.07 barrels in its pipelines division and had no reportable releases in its trucking division. Nine of the 11 spills were categorized as offsite (totaling 5.07 barrels) and the remaining two spills (totaling 42 barrels) were contained onsite. Eight of the 11 spills involved one barrel or less.

Gas Transportation trucking (DPI) delivered approximately 59.95 million barrels in 2011; pipelines in Gas Transportation delivered 33.08 million barrels in 2011.

**Note to the following two tables:**

- Unless otherwise noted, data covers natural gas transmission, gathering, processing and trucking operations of Enbridge Energy Partners, L.P. and Enbridge Offshore operated by Enbridge Inc.
- Number of spills includes liquid spills from gas transmission and the limited number of liquids pipelines that are included in Enbridge's Gas Transportation Business.
- 1 barrel = 0.159 cubic metres or 42 United States gallons (all liquid products).

**GAS TRANSPORTATION – 2011 REPORTABLE SPILLS BY VOLUME AND LOCATION**

	0-1 bbls	2-10 bbls	11-100 bbls	> 100 bbls
Onsite	0	0	2	0
Offsite	8	1	0	0
Sub-total	8	1	2	0
<b>Total</b>	<b>11</b>			

## GAS TRANSPORTATION – VOLUME OF TOTAL REPORTABLE SPILLS

Year	Total Number of Spills	Total Spills Volume (bbls)
2011	11	47
2010	7	35
2009	13	88
2008	9	159
2007	4	10

## 2011 REPORTABLE SPILLS – ENBRIDGE GAS DISTRIBUTION

Enbridge Gas Distribution experienced 25 reportable spills in 2011, totaling 35 barrels, including gas, oil and other substances.

EGD reported all the spills to the Spills Action Centre of the Ontario Ministry of Environment and all impacted areas were restored in a timely manner, with no further actions required.

One reportable spill occurred when a contractor was digging to expose a valve and hit it, resulting in a release of 150 gallons of brine into the excavation. The spill was contained in the excavation and a vacuum truck was used to recover the brine.

Another reportable spill occurred when a faulty compressor leaked oil into a pipeline during a pipeline cleaning operation. The cleaning pigs exiting the pipeline pushed approximately one gallon of oil into an excavation. All impacted soil was removed from the excavation for proper disposal.

The remaining 23 spills are attributed to bentonite frac-outs as a result of horizontal directional drilling (HDD) activity.

## ENBRIDGE GAS DISTRIBUTION – 2011 REPORTABLE SPILLS BY VOLUME AND LOCATION OF SPILL

	0-1 bbls	2-10 bbls	11-100 bbls	> 100 bbls
Onsite	0	1	0	0
Offsite	19	4	1	0
Sub-total	19	5	1	0
<b>Total</b>	<b>25</b>			

## ENBRIDGE GAS DISTRIBUTION – VOLUME OF TOTAL REPORTABLE SPILLS

Year	Total Number of Spills	Total Spills Volume (bbls)
2011	25	35
2010	4	101
2009	1	0.02
2008 <sup>1</sup>	3	2
2007	2	6

<sup>1</sup> 2008 totals were adjusted down from those reported in Enbridge's 2009 CSR Report because a planned and permitted release of water by EGD in 2008 was incorrectly counted as a spill.

## Monitoring and remediating past actions

Throughout Enbridge's Canadian and U.S. systems, Enbridge conducts programs to assess historic leak sites. Some of these sites have been in existence for more than 50 years and, in many instances, the contamination has resulted from practices that were the standard of the day but are no longer acceptable. Enbridge assesses historic release locations systematically and takes further actions where warranted.

Some examples include:

- Liquids Pipelines continued to work on delineating, monitoring and/or remediating historic leak sites with work occurring at various locations along the pipeline system. A number of leak sites were successfully "closed" in 2011 and early 2012, meaning that Enbridge had remediated the sites to the satisfaction of the landowners and appropriate regulatory agencies. Examples include: May 2011 leak at Terrebonne Station, Quebec; Glenavon, Saskatchewan Regional Bioremediation Facility; September 2009 leak near Odessa, Saskatchewan; and April 2007 leak near Glenavon, Saskatchewan.

- Gas Transportation's plant in Springtown, Texas, treats and processes gas and its plant in Harmony, Mississippi, which is no longer in operation, previously treated and processed gas. Past operations at these plants, before Enbridge ownership, released hydrocarbons, which have been detected in local groundwater. Regarding the contamination at the Springtown plant, Enbridge concluded remediation activities and received a "No Further Action" determination from the Texas Railroad Commission. In Mississippi, Enbridge is currently working with state agencies to aggressively remediate soil and groundwater contamination. An in-situ air sparging/soil vapour extraction system was installed in 2010 to aid in remediation of groundwater contamination. While ongoing monitoring indicates that the company's efforts are having a positive effect, it will continue to monitor this progress under the supervision of the state and will take any necessary actions should the situation change.

## **EN26**

*Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation.*

## **EN27**

*Percentage of products sold and their packaging materials that are reclaimed by category. [Note: Not relevant to Enbridge]*

## **PIPELINE AND FACILITY INTEGRITY**

According to the Association of Oil Pipelines (AOPL), pipelines are the safest and most efficient method of transporting fuels. Replacing even a modest-size pipeline, which might transport 150,000 barrels per day, would require 750 tanker-truck loads a day, which equates to a load delivered every two minutes around the clock. Replacing the same pipeline with a railway train of tank cars carrying 2,000 barrels each would require a 75-car train to arrive and be unloaded every day.

Pipelines also have the least amount of releases of any transportation mode. Liquids pipeline spills along rights-of-way have decreased over the past decade, in terms of both the number of spills and the amount of product spilled, so that today ruptures on pipelines are rare. According to the Canadian Energy Pipeline Association (CEPA), in Canada between 2002 and 2009: ruptures on federally regulated pipelines averaged slightly more than one per year, a decline of 55 per cent from the previous eight years; and the average annual volume released from liquids pipelines was two litres for every million litres transported, meaning 99.9998 per cent of the product was transported safely.

In addition to the fewest releases, pipeline transportation has the lowest energy input requirements and carbon footprint as compared to other transportation modes (barge, truck, rail and marine). With the volumes that must be transported, pipelines are the only feasible method for moving the enormous quantities of petroleum North America consumes each day.

## **PIPELINE AND FACILITY INTEGRITY – ENBRIDGE'S APPROACH**

Enbridge aims to be a North American leader in pipeline and system facility integrity, and our goal is to prevent all spills, leaks and releases from our energy transportation and distribution systems.

We underpin these objectives in our Environment, Health and Safety Policy, which states that "our goal is to have no accidents and to cause no harm to the environment."

To achieve these objectives, we invest heavily every year in pipeline safety through a branch of technology known as pipeline integrity management and maintenance. For example, in 2011, Enbridge's Liquids Pipelines business unit alone invested approximately \$400 million in programs and initiatives related to pipeline and facility integrity and, in 2012, we plan to spend more than \$800 million to ensure the safety and integrity of our system.

For Enbridge, pipeline integrity management and maintenance encompasses the tools, technologies and strategies needed to ensure that pipeline networks have the strength and operating fitness to perform safely, reliably and in an environmentally responsible manner.

As part of this discipline, Enbridge:

- follows environmentally sound practices;
- takes a proactive approach to pipeline inspection and repair;
- invests in advanced leak and damage prevention and pipeline integrity management technologies;
- implements rigorous monitoring programs that include Enbridge's leadership in the use of sophisticated inline inspection tools that identify features in the pipeline;

- implements preventive maintenance programs, including inspection and repair digs;
- participates in industry forums to share and exchange knowledge;
- pursues and supports technology research;
- contributes to the development of national pipeline safety standards and industry recommended practices;
- supports state and provincial excavation one-call efforts to reduce the risk of third-party damage to pipelines and enforcement of “Call Before You Dig” and three-digit (811) one-call systems for excavators;
- implements public awareness programs to keep property owners, neighbours and contractors along Enbridge’s rights-of-way informed about the company’s pipeline system and remind them of their obligation to call before digging;
- conducts mock emergency exercises to train employees and external stakeholders should an emergency occur;
- sets integrity performance targets for its Liquids Pipelines, Gas Transportation and Enbridge Gas Distribution business units that are tied to employee compensation;
- reports leaks or spills from its pipelines in accordance with the requirements of regulatory authorities in Canada and the U.S.; and
- investigates all spills, leaks and releases to determine the root cause and incorporate findings into Enbridge’s prevention programs to minimize future risk.

Generally speaking, Enbridge’s full range of ongoing pipeline and facility integrity initiatives fall within the following seven focus areas:

1. Design, materials and construction
2. Public awareness
3. Monitoring and preventive maintenance
4. Long-term infrastructure planning
5. Leak detection
6. Preparedness and response
7. Environmental mitigation

Please see below for reports on these seven focus areas.

## **1. FOCUS ON DESIGN, MATERIALS AND CONSTRUCTION**

Enbridge’s focus on pipeline safety begins at the planning stage.

For major projects, we implement rigorous processes and practices during design and construction to ensure the operational integrity of our pipelines.

Design and construction measures include, among others:

- having a rigorous, multi-disciplinary route selection process that identifies pipeline corridors and line locations that achieve an acceptable balance of engineering, environmental and economic considerations;
- maintaining world-class standards for engineering and design, including meeting all special design requirements for areas such as road, river and creek crossings;
- maintaining world-class standards for materials procurement, including selection of pipeline materials, corrosion inhibiting coatings, and cathodic protection; and
- using world-class construction practices, including a commitment to identify, mitigate and proactively manage potential construction project effects on the environment and also paying close attention to environmentally sensitive areas and at-risk species.

## 2. FOCUS ON PUBLIC AWARENESS

Public awareness of pipeline activity is a vital element of pipeline safety.

We ensure that emergency officials and residents along our pipeline routes are well informed of all pipeline activities and safety procedures.

We pursue this in a number of different ways, beginning with an ongoing commitment to open and transparent consultation with the individuals who live along our pipelines and those who may become neighbours as the pipeline network grows. For example, Enbridge Gas Distribution's (EGD) commitment to its customers does not stop at natural gas delivery. EGD is also committed to safety, and a key factor is educating its customers on natural gas safety through ongoing communication to increase public awareness. EGD provides information and tips to help ensure safe natural gas use through both bill inserts and media campaigns. The media campaigns cover EGD's franchise area and include radio ads for "Call Before You Dig" and carbon monoxide (CO) safety. The CO campaign is also supported by billboard advertisements. EGD is also working to improve public awareness among landowners along "vital main" corridors.

In the U.S., Enbridge is involved in the federal Pipeline and Hazardous Materials Safety Administration (PHMSA) Pipelines and Informed Planning Alliance (PIPA) sponsored program, which is a multi-stakeholder consensus effort to develop best practices for development near pipelines and for assuring that those who host pipelines on their property understand how those pipelines are operated and what pipeline companies do to protect their near neighbours. In 2010, the program issued two reports: *Partnering to Further Enhance Pipeline Safety In Communities Through Risk-Informed Land Use Planning: Final Report of Recommended Practices*; and *Building Safe Communities: Pipeline Risk and its Application to Local Development Decisions*. Copies of these reports, as well as current information about the program are available at PHMSA's website at <http://primis.phmsa.dot.gov/comm/pipa/LandUsePlanning.htm>.

## 3. FOCUS ON MONITORING AND PREVENTIVE MAINTENANCE

Enbridge believes that pipeline safety and reliability begin with prevention.

This means recognizing conditions that have been known to cause pipeline failures in the past and then working to minimize the risk.

It also means adopting advanced leak and release prevention technologies, following environmentally sound practices and taking a proactive approach to pipeline testing and repair.

Following are some of the monitoring and maintenance measures that Enbridge takes:

### Combating Corrosion

Because of their location and the products they carry, pipelines may come in contact with water and bacteria, all of which can corrode steel.

Both the interior and exterior of the line are potentially subject to corrosion.

Enbridge mitigates the threat of corrosion by:

- using high-quality materials and anti-corrosion coatings that are specified during the design phase of the pipeline;
- using cathodic protection (a low-level electric current applied to the pipe, or sacrificial anodes connected directly to the pipe) to inhibit external corrosion of underground pipelines;
- using modeling to predict corrosion growth rates along pipelines;
- using specialized corrosion inhibitors injected directly into the crude fluid being shipped to address internal corrosion;
- scheduling regular monitoring and inline inspections to check for corrosion;
- using inline devices known as "pigs" to clean and inspect pipelines from the inside; and
- scheduling excavation and repair programs identified by inline inspections.

Enbridge continues to pursue new methods to prevent or manage corrosion. Currently, the company is helping to lead research and development that will further cathodic protection, coating science, inline inspection technologies and improved methods to monitor and mitigate internal corrosion.

### Managing Cracking

Cracking is a phenomenon that can occur in metals, including pipeline steel. Cracking occurs at unique locations along a pipeline where the necessary conditions exist. These conditions include a pre-existing initiation point in

the pipe surface, a fluctuation in stress in the pipe, and in some cases an environment that promotes a cracking mechanism. While it is common for these conditions to exist individually, it seldom occurs that these conditions all combine on the pipeline system to result in a crack that might affect the pipeline operation. We monitor our pipeline system and carry out extensive mitigative activities to reduce the potential for cracking to occur.

Enbridge is committed to being at the forefront of technological developments and research relating to the cracking phenomenon and its diagnosis. These efforts have resulted in rigorous programs for monitoring and managing cracking, with the key activity being the use of ultrasonic inline inspection technologies for our liquids pipelines. For its part, EGD is scheduled to use the next generation of EMAT (electromagnetic acoustic transducer) technology in 2013 to check for the occurrence of cracking in its high-stress pipelines (lines operating at higher pressure).

Over the past 15 years, Enbridge has carried out a number of actions to enhance industry's development of advanced inspection technologies and field evaluation methods. The company also continues to actively participate in a variety of industry forums that are focused on cracking.

### Managing Mechanical Damage

Mechanical damage describes conditions on a pipeline such as dents, gouges, scrapes, etc. that can be created by a variety of outside forces such as rocks, impact from equipment during construction, or impact from third-party excavating equipment while the pipeline is in service.

These types of conditions may result in either a penetration of the pipeline at the time of occurrence or the initiation and growth of a crack over time.

Managing mechanical damage requires the integration of data from several inspection technologies, including caliper tools (deformation sizing), metal-loss tools, and crack tools, as each of them provides detail that can be used to characterize these conditions.

Through sponsorship and technical leadership of joint industry research projects, Enbridge has actively pursued improvements to both inline inspection technologies and engineering models that characterize the pipe condition. This work has provided the industry with improved methods of managing mechanical damage to pipelines.

### Damage Prevention

The greatest risk facing EGD's pipelines is damage caused by third-party excavators, so for many years EGD has been focusing on educating both excavators and locators. EGD's efforts have shown results. Over the past 10 years, while locate requests have increased 112 per cent, the number of recorded damages per 1,000 locates has decreased by 70 per cent, total damages have decreased by 36 per cent, and locate error rates have decreased by 15 per cent. In 2011, EGD continued to see a decline in the number of damages per 1,000 locates. The following table illustrates the improvements EGD and its affiliates have made in reducing incidents that cause damage.

	2007	2008	2009	2010	2011
# of damages by third parties	2,194	2,076	2,116	1,969	1,605
# of locates	340,571	379,817	401,105	402,584	495,646
# of damages per 1,000 locates	6.4	5.5	5.3	4.9	3.2

EGD continuously looks for new ways to protect pipeline assets through innovative strategies and incorporating industry best practices. Recent initiatives include completing a marketing research study on the effectiveness of consumer communication programs, and training for locators. Also, efforts to move forward on a single national "Call Before You Dig" phone number continue. In the spring of 2012 the Government of Ontario passed legislation to establish a mandatory One Call system in Ontario. In the field, improved tracer wire technology, as well as the introduction of traceable rods in service lines will assist in providing additional protection to assets.

In 2011, EGD also expanded the Sewer Lateral Cross Bore Program, which was piloted in 2010 to address the potential that natural gas lines installed using trenchless technology may have inadvertently intersected sewer service lines. Also, when a blocked sewer is being cleared outside the walls of buildings by municipal sewer operators, plumbers, drain cleaners or the general public, there is the potential to damage a natural gas line, creating a serious safety risk. In 2011, the audience of the sewer inspection program was expanded and additional marketing communication activities were carried out during seasonal excavation peaks. The Canadian



Gas Association (CGA) also recognized EGD with the Public Safety Award for contributions to improving public safety due to this program. While the Ontario Technical Standards and Safety Authority has issued a legal requirement for all pipeline license holders to have effective sewer intersect risk mitigation programs in place, the EGD program is considered industry-leading and as a result is being used as a template for provincial adoption.

### **Carrying Out Inline Inspections**

Sophisticated inline inspection (ILI) technology is a vital element in Enbridge's pipeline integrity program.

We use sensitive ILI tools to measure the size, frequency and location of even minute changes in the walls of our major pipelines.

These sophisticated tools enable us to inspect the inside and outside of our pipes on a millimetre-by-millimetre scale. In 2011, we conducted 150 ILI runs.

Although most anomalies discovered are minor and do not threaten the integrity of our system, we analyze and monitor all of them through periodic inspections to see how anomalies change over time.

### **Implementing a Comprehensive Program of Pipeline Integrity Digs**

Enbridge's constant monitoring and inspection of its pipelines alerts the company to locations to check for corrosion, cracks or other anomalies.

The company follows up in line inspections by carrying out investigative digs in the field. Each dig involves digging up a section of buried line to examine and, if needed, repair and recoat the pipe and rebury the line.

Enbridge conducts all digs to a high environmental standard. In natural environments, before beginning work, the company completes screening tests to identify environmental issues and measures needed to minimize impacts to land, vegetation and wildlife.

Enbridge conducts similar environmental reviews for other small engineering and operation and maintenance projects.

In 2011, we completed over 1,900 integrity verification digs along our mainline liquids pipelines system in Canada and the United States, compared with approximately 1,500 in 2010.

For its part, EGD started a 10-year baseline program in 2003 for high-stress pipelines (lines operating at higher pressure). In 2011, EGD completed 29 integrity verification digs on the 393 kilometres (244 miles) of pipeline that are in the program, while U.S.-affiliate St. Lawrence Gas completed 10 integrity digs with 145 kilometres (90 miles) of transmission pipe.

### **Patrolling the Line**

Prevention depends on a constant round of inspections to spot potential trouble spots along major pipeline rights-of-way.

Using aircraft, land vehicles or foot patrols, we regularly monitor our major pipeline routes, on the lookout for potentially damaging activities such as unauthorized digging and construction.

### **Monitoring Pipeline Depth**

To help ensure the protection and integrity of our pipelines, Enbridge has implemented a pipeline depth monitoring program.

The program was developed with the aim of making sure major pipelines are covered by the appropriate amount of soil.

To monitor pipeline depth, the company uses specialized electronic equipment that locates and records the pipeline depth for these pipelines every 50 metres. At EGD, the equivalent program records pipeline depth every 30 meters, with an inspection frequency of every three years.

In addition to monitoring the pipeline depth, a global positioning system (GPS) is also used to record pipeline coordinates and observe right-of-way conditions such as terrain, land use, damages or deficiencies.

### **Integrity within Facilities**

In 2004, Liquids Pipelines added facility integrity measures such as a Leak Reduction Team and small piping integrity initiatives to its existing programs.

A team of subject-matter experts in Engineering, Operations and Integrity guides a leak reduction program for the network of facilities throughout the system, including pump stations and terminals.

Enbridge is committed to ensuring that all of our facilities, including pump stations and terminals, are operated and maintained in a safe, responsible manner. This is accomplished through the use of design standards; equipment and construction specifications; commissioning, operating and maintenance procedures; and targeted tankage, equipment and piping inspections.

Through 2010 and 2011, all pump station and terminal locations were visually inspected to identify opportunities for improvement (according to the Facility Inspection Protocol that was developed in 2009). The resulting recommendations are being addressed in 2012. In addition to those inspections, targeted inspections of the components within the facilities occur on an ongoing basis to assure the integrity of our assets.

When a release occurs, it is investigated and analyzed. Based on this investigation, corrective actions are developed to reduce the likelihood of reoccurrence and/or reduce the consequence through improved detection. The Leak Reduction Team focuses on leak reduction, then reviews both the investigation and corrective actions to determine if there are any additional actions that would improve the integrity across all facilities.

#### **4. FOCUS ON LONG-TERM INFRASTRUCTURE PLANNING**

Enbridge evaluates the condition of its pipeline system to determine the optimal method of ensuring long-term operability and reliability.

The methods considered include pipe replacement, pipeline rehabilitation (coating replacements), continued inline inspections and repairs.

The analysis considers factors such as ease and safety of implementation, economic evaluations, and operational expectations—all with the requirement that pipeline safety will not be compromised.

Long-term planning is focused on the pipeline system, with its condition assessed using inline inspection and other key parameters from Enbridge's operations. For example, 14 sections of new pipe and a river crossing had been completed on Enbridge's Line 6B by the end of 2011, with a further 120 kilometres (75 miles) of pipe replacement scheduled on this line by year-end 2012.

For its part, Enbridge's Gas Transportation (GT) business unit has initiated a pipe replacement project that will remove from service old legacy pipelines in the North Texas area that have a history of leaks. By the end of 2013, approximately 238 gathering pipelines will be revamped, replaced or abandoned in an effort to reduce leaks.

#### **5. LEAK DETECTION**

Spills, leaks and releases happen for a variety of reasons. Pipelines that come into contact with water, bacteria and chemicals can corrode, both internally and externally. People can inadvertently damage pipelines through unauthorized digging and construction or poor excavation practices.

Enbridge has adopted advanced leak-detection technologies. Our leak detection capabilities are designed to meet and exceed the requirements of: the National Energy Board's Onshore Pipeline Regulations, 1999; the Canadian Standards Association's CSA Z662/Annex E; the U.S. Department of Transportation's CFR 49 Part 195; and the American Petroleum Institute's API 1130.

We monitor our pipelines for possible leaks using four primary methods, each with a different focus and featuring differing technology, resources and timing. Used together, these methods provide overlapping and comprehensive leak-detection capabilities.

**Monitoring** – Enbridge's Pipeline Controller monitors pipeline conditions (such as pipeline pressure) through the Supervisory Control and Data Acquisition (SCADA) system, which is designed to identify unexpected operational changes such as pressure drops that may indicate a leak. Additional sensors monitored through SCADA such as concentrations of explosive vapour (LEL), pump seal failures, equipment vibration levels and sump levels can also be used by the controller to identify a potential leak.

**Visual surveillance and odour reports** – These are reports of oil or mercaptan odours from third parties and from Enbridge's aerial and ground line patrols. Third-party reports are handled through an emergency telephone line, which affected publics and local emergency officials are made aware of through Enbridge's Public Awareness Programs. Liquids Pipelines typically conducts aerial line patrols every two weeks on its systems, while Enbridge Gas Distribution conducts weekly patrols on most of its lines. Gas Transportation conducts a series of leak surveys, including mobile, building and walking surveys.

**Scheduled line-balance calculations** – Sometimes called "over/short reports" in the industry, these are calculations of oil inventory that are carried out at fixed intervals, typically every two and 24 hours. A rolling, 24-hour calculation is also maintained at a set time each day. The purpose of these calculations is to identify unexpected losses of pipeline inventory that may indicate a possible leak.

**Computational Pipeline Monitoring (CPM)** – CPM is a computer-based system that utilizes measurements and pipeline data to detect anomalies that could indicate possible leaks. The CPM system provides a sophisticated computer model of Enbridge's pipelines that continuously monitors changes in the calculated volume of oil between two fixed points on the system. If the calculated volume of oil is less than expected, then an alarm is

triggered in Enbridge's Control Centre. The cause of the alarm is investigated immediately.

Starting in 2011, Liquids Pipelines undertook a program to define its leak detection performance on a line-by-line basis across the system, and performance targets for each have been set. Flow meters and additional instrumentation are being added to improve leak detection performance system wide. Research and assessment is under way on a variety of leak detection technologies, including those used during aerial right-of-way surveillance and internal pipeline inspection. EGD has a similar program of research and field trial investigations to improve leak detection capabilities.

GT is currently coordinating and heading up an industry-wide field test/trial to evaluate the effectiveness of new technologies in detecting leaks of natural gas from energy transportation pipelines, using sensors deployed in standard pipeline patrol aircraft. The field test took place in June 2012, using GT pipelines in the North Texas area. The test involved a series of controlled gas releases from specified locations. Multiple vendors were invited to fly a series of routes under varying conditions before, during, and after a controlled leak utilizing a standard Flame Ionization Unit to locate possible leak sources and confirm emission rates. Through this process, vendors will provide similar test data, which then can be evaluated to determine the sensitivity and accuracy of natural gas leak detection technologies.

## **6. FOCUS ON EMERGENCY PREPAREDNESS AND RESPONSE**

While Enbridge's pipeline and system integrity initiatives described above contribute to reducing the risk of spills, leaks and releases and mitigating their impacts, these measures cannot completely eliminate the risk.

Therefore, Enbridge has comprehensive emergency preparedness and response and environmental mitigation plans in place to respond rapidly and completely if an emergency does occur.

### **Preparedness**

Enbridge's emergency and crisis preparedness plans are designed to minimize the impact of an incident and comply with regulatory requirements.

Employees throughout Enbridge's business units in Canada and the United States participate in regular emergency response drills and simulations to test and improve procedures. These range from tabletop exercises, where employees discuss responses to various scenarios, to full-scale deployment exercises with local emergency agencies, using equipment to practice recovery and clean-up in various terrains and on water, as applicable.

As an additional measure in 2011, Enbridge created and began specialized training for a cross-business-unit response team to respond to large-scale events anywhere in North America that would require more resources than a single region or business unit could provide. The response team will be conducting major training exercises involving all of Enbridge's business units, emergency response contractors and consultants, and federal, state/provincial and local emergency response agencies.

All of the company's operating facilities maintain regular contact with communities and first responder organizations to keep them up to date and coordinated with Enbridge's operations and contingency plans.

### **Enbridge Safe Community Program**

Strong relationships with emergency responders in Enbridge's areas of operation throughout North America are a top priority for the company.

One of Enbridge's flagship community investment programs is its Safe Community Program, which provides monetary grant support for first responders, police agencies, fire-fighters, emergency medical services and other related health providers who would respond to emergency situations along any of Enbridge's pipeline rights-of-way.

The grant support helps eligible organizations acquire new safety-related equipment, obtain professional training and deliver safety education programs in their communities.

As a result of feedback received from a 2011 survey of emergency response agencies that have received grants through our Safe Community Program, we have begun development of an interactive training program for emergency responders to cover all elements of our operations. The training, which will be deployed online via email and also in person, will launch in the U.S. in late 2012; we are concurrently working on a plan to deploy the program in Canada. The training program will include elements of "Pipeline Emergencies," a program developed through a partnership between the National Association of State Fire Marshals (NASFM) and the Pipeline and Hazardous Materials Safety Administration (PHMSA) and widely accepted as world class in training for pipeline emergencies.

## **Response**

When an emergency occurs, Enbridge carries out emergency response procedures to shut down and isolate the impacted pipe, notify the appropriate government and regulatory agencies, contain the substance as appropriate, and manage potential environmental and safety impacts.

In addition, Enbridge works closely with emergency first responders, landowners, regulatory agencies and other concerned parties to develop any necessary remediation and monitoring plans.

Enbridge also conducts root-cause incident investigations and reviews the effectiveness of the incident response. Lessons learned are shared within the company and with industry and local responders.

In the event a large gas leak occurs over a short period of time, the risk of an explosion or blast can be significant. To mitigate potential consequences, GT is currently working with Stanford Research Institute (SRI) and Pipeline Research Council International (PRCI) to perform full-scale pipeline tests to evaluate the performance of blast mat mitigation strategies that have been developed to mitigate the consequences produced by the rupture of a natural gas pipeline. GT originated this research project, which can be used industry wide to identify viable concepts for mitigating this sort of damage.

## **7. FOCUS ON ENVIRONMENTAL MITIGATION**

Enbridge has a strong record of environmental stewardship and regulatory compliance, and we work closely with federal, provincial and state regulators and authorities to ensure that we build, operate and maintain our pipelines and facilities safely and with the utmost regard for the protection of the environment.

When Enbridge experiences a leak, our highest priority is the safety and protection of people and the environment and the rapid response and, where applicable, thorough containment and clean-up in such a way as to minimize the impacts. Following are the typical steps that we take for an oil spill:

- Containment is the first order of business as Enbridge works to address the environmental impact. Simply put, the smaller the area that is touched by the oil, the less damage is done and the easier it is to clean up.
- As it contains the oil, Enbridge works to capture it and safely remove it from the environment. As it removes the oil, Enbridge is very careful to keep it from spreading to uncontaminated vegetation, water or soil.
- For the vast majority of spills, whether they are large or small, Enbridge recovers a high percentage of the oil and injects it back into the pipeline.
- Water, soil and vegetation that have come into contact with oil is typically removed and disposed of at an appropriate waste disposal facility. As affected water, soil and vegetation are removed, Enbridge is very careful not to spread the oil to uncontaminated areas. The company establishes what needs to be removed based on a comprehensive clean-up plan, environmental testing and monitoring, physical inspection and guidance from government regulators.
- Enbridge works closely with wildlife experts to minimize impacts on wildlife and assist and rehabilitate animals that have come in contact with oil.

Enbridge develops plans for remediation and reclamation with the input of affected stakeholders and environmental regulators. Our goal is to address the requirements of all regulators and stakeholders and to restore the area as closely as possible to its pre-spill condition or to a state that is acceptable to the local community.

## **DEMAND-SIDE MANAGEMENT**

Enbridge is committed to helping customers use energy wisely. Enbridge Gas Distribution (EGD) has more than 30 demand-side management (DSM) programs covering all market sectors that encourage customers to adopt energy-saving equipment and reduce consumption of natural gas.

EGD does this by:

- Conducting energy audits of commercial and industrial customers' operations to identify opportunities to improve energy efficiency
- Providing financial rebates and incentives to all types of customers—from homeowners to large industrial customers—to encourage them to adopt energy-saving equipment and practices

- Working with industry and trade associations in various sectors—such as chemicals, construction, automotive, food and beverage, and pulp and paper—to promote DSM programs and contribute to industry standards and best practices
- Partnering with governments, suppliers and equipment manufacturers to invest in new energy-efficient technologies that benefit ratepayers and enhance the competitiveness of EGD’s business
- Participating in consumer and community events to promote and ensure that program opportunities are well publicized and accessible to all consumers, including low-income earners
- Ensuring that all of its incentives and rebate offers are available on its website for fast and easy review and downloading

In 2011, EGD’s DSM programs saved approximately 77 million cubic metres<sup>1</sup> of natural gas, which is enough to supply approximately 25,000 homes<sup>2</sup> with natural gas for a year.

Since 1995, EGD’s DSM programs have cumulatively delivered about 7.0 billion cubic metres of natural gas savings (the equivalent of enough gas to supply approximately 2.3 million homes for one year<sup>2</sup>) and net energy savings to customers of about \$2.1 billion. Through these DSM activities, EGD has helped its customers avoid cumulatively approximately 13.3 million tonnes of carbon dioxide emissions<sup>3</sup>.

1 2011 natural gas m<sup>3</sup> savings have been audited; however, they are still subject to final regulatory approval and the clearance of accounts with the Ontario Energy Board.

2 Assumes that a typical residential customer uses 3,064 m<sup>3</sup> of natural gas per year to heat their home and water.

3 Assumes that 1.89 kgs of CO<sub>2</sub> are emitted for each m<sup>3</sup> of gas that is consumed.

### **Contributing to policy on DSM**

As a recognized DSM leader in the natural gas industry, EGD is frequently invited to provide advice on DSM initiatives.

In early 2011, the Ontario Energy Board (OEB) released new draft DSM Guidelines to set the framework for DSM until 2014. In response to the Board’s invitation, Enbridge submitted extensive comments.

Later in 2011, the Board released a letter inviting comment on the future of natural gas DSM in Ontario and again, Enbridge responded.

The new DSM Guidelines for natural gas utilities that the Board published in June 2011 reflect some of Enbridge’s recommendations.

In response to one of the requirements of the new guidelines, Enbridge and Union Gas proposed the development of a new utility/stakeholder body—the Technical Evaluation Committee (TEC)—with a mandate to establish common technical standards for natural gas DSM in Ontario. This approach was accepted by the intervenors, and the utilities worked together with intervenors to develop the detailed Terms of Reference. These were then submitted by the utilities with full support of the intervenors and accepted by the OEB. The TEC will reduce duplication of effort between the two utilities and also serve to further reduce regulatory time in proceedings before the OEB. The changes to the DSM Guidelines and framework still include a DSM incentive that provides utility shareholders with a share of the benefits from DSM initiatives. The DSM results have positive impacts, not only for the customers participating in the DSM programs, but also for broader conservation efforts in the province of Ontario.

## **COMPLIANCE**

### **EN28**

*Monetary value of significant fines and total number of non-monetary sanctions for noncompliance with environmental laws and regulations.*

Enbridge manages compliance with laws and regulations through system controls and regular reviews that include training and awareness, adopting best practices, inspections and third-party audits. We consider any regulatory notification or penalty to be important and expect our employees and contractors to fully comply with all regulatory, legislative and permit requirements. Regulatory notifications are formal written notices by regulators that Enbridge may not be adhering to legal, regulatory or permit requirements. Examples include enforcement actions, summonses, charges, stop and control orders, Notices of Violation (NOVs), and formal warnings. In the event that Enbridge’s performance falls short of this expectation, we carry out rigorous reviews and institute corrective actions, as we did for each non-compliance issue noted below.

## Liquids Pipelines

In 2011, Liquids Pipelines received no notifications from government agencies for environmental issues.

On July 2, 2012, Enbridge received a Notice of Probable Violation (NOPV) from the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) related to the 2010 Line 6B crude oil release near Marshall, Michigan, which indicated a US\$3.7 million civil penalty. Enbridge agreed to pay the penalty proposed by PHMSA.

## Gas Transportation

As of May 10, 2012, Gas Transportation in the U.S. had received 20 NOVs covering 2011 with a total fine amount of US\$29,376, and there were three open NOVs, fines for which, if any, had not yet been determined.

## Enbridge Gas Distribution

Enbridge Gas Distribution (EGD) received no notifications, fines or orders for non-compliance with environmental regulations in 2011.

## COMPANY-WIDE REGULATORY NOTIFICATIONS AND FINES

	2011	2010	2009	2008	2007
Regulatory Notifications <sup>1</sup>	20	25	25	14 <sup>4</sup>	15
Regulatory Fines Incurred (thousands of Canadian dollars)	\$29.7	\$1,176 <sup>2</sup>	\$1,159.3 <sup>3</sup>	\$59.9	\$4.9

1 Enbridge responded promptly to address the concerns associated with all notifications.

2 Includes US\$1-million settlement agreement with the Wisconsin Department of Justice for air compliance violations received at Enbridge's crude oil pipeline breakout storage terminal at Superior, Wisconsin. Many of the violations were self-reported by Enbridge to the Wisconsin Department of Natural Resources after Enbridge discovered them during the course of a facility audit. Since then, Enbridge has corrected the issues or is in the process of correcting them.

3 A settlement regarding three NOVs issued by the Wisconsin Department of Natural Resources was reached in January 2009 and included a US\$730,000 fine and a US\$370,000 statutory assessment. The NOVs pertained to environmental infractions that Enbridge allegedly committed while constructing its Southern Access pipeline in 2007.

4 Reduced from the total of 12 reported in the 2009 CSR Report because one U.S. Department of transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) notification was incorrectly counted as an environmental regulatory notification.

## TRANSPORT

### EN29

*Significant environmental impacts of transporting products and other goods and materials used for the organization's operations and transporting members of the workforce.*

Enbridge Gas Distribution (EGD) has the largest natural gas vehicle fleet in Canada, with over 597 of its 785 vehicles running on low-emission fuel. By converting these vehicles to natural gas, EGD has reduced carbon dioxide fleet emissions by an estimated 700 tonnes annually.

In addition to using low-emission fuel, EGD is taking further actions to reduce vehicle emissions. This includes replacing older trucks with newer ones that meet stricter emissions standards. EGD has also reduced the fleet size by standardizing vehicle designs and building versatility into its fleet. For jobs where three trucks would have been previously required, each with its own capabilities, EGD has built three different job functions into one truck.

EGD also operates seven natural gas vanpools for its employees living in the Greater Toronto Area who commute to work at its Victoria Park offices in Toronto. Each vanpool can hold eight passengers and a driver. In total the program saves about 300 tonnes of CO<sub>2</sub> annually. Employees benefit by reducing their vehicle fuel and maintenance costs, lowering stress, having preferred parking at the EGD office and having pride in knowing that they are doing their part for the environment and to relieve traffic congestion. Additional vanpools are being planned for EGD's new Technical Operations Training Centre in Markham, Ontario, once employees are relocated to that site.

In addition, beginning in February 2012, EGD has partnered with Smart Commute and other businesses along the Consumers Road transportation hub to participate in a three-month pilot program for a shuttle bus for employees between the EGD office and the Don Mills subway station. This is designed to encourage employees to use the public transportation system more. This bus operates during the commuting hours, as well as at lunch time.

## **TOTAL ENVIRONMENTAL PROTECTION EXPENDITURES**

### **EN30**

*Total environmental protection expenditures and investments by type.*

Enbridge spends hundreds of millions of dollars annually on environmental assessment, protection and other initiatives. While some of these actions are mandatory, such as impact assessments and reporting of operational emissions, many others are voluntary, such as tree-planting, conserving natural habitats, and public disclosures about the company's environmental, social, and economic performance.

Enbridge's environmental activities include:

- Pipeline integrity (approximately \$400 million invested by our Liquids Pipelines business unit in 2011)
- Emissions Data Management System (approximately \$5 million invested in 2011)
- Tree planting (approximately \$0.25 million invested in 2011)
- Conservation of natural habitat (approximately \$0.83 million invested in 2011)
- GHG management and reporting
- GHG auditing
- Groundwater monitoring
- Site containment / drainage
- Environmental seminars for staff
- Environmental Management System audit
- Earth Week Campaign
- Soil assessments
- Sponsorships of environmental groups (e.g. Ducks Unlimited; Trout Unlimited; Pheasants Forever; etc.)
- Corporate Social Responsibility reporting
- Waste management (e.g. minimization, reuse, and recycling)
- Participation in industry association activities
- Compliance with all applicable regulatory requirements
- Regulatory reporting
- Government approvals
- Aquatic assessments
- Geo-technical assessments
- Contaminated soil management
- Environmental assessments

# ***SOCIAL PERFORMANCE***

## ***WE'RE COMMITTED TO SUSTAINING SAFETY FOR OUR EMPLOYEES AND THE PUBLIC, AND TO BUILDING STRONG AND VIBRANT COMMUNITIES.***

The people of Enbridge work hard every day to demonstrate to all of our stakeholders that we'll always live up to our core values of Integrity, Safety, and Respect.

We believe that Enbridge's success is rooted in treating people fairly. That's why we're always looking for new ways to enhance our employees' and stakeholders' quality of life, and it's why we invest in initiatives that provide real, tangible benefits to the communities where we operate across North America.

These investments range from programs designed to attract, engage, inspire and retain employees to initiatives that ensure that Enbridge's operations are as safe as possible. Our initiatives also extend to Enbridge's policies on human rights and on how we conduct business in a way that aligns with our commitments to building trust, demonstrating respect for human dignity and human rights in all relationships, and enabling mutual advantages.

We work with Aboriginal communities to ensure they achieve sustainable benefits from our projects and operations, including opportunities in equity partnership, training and education, employment, procurement, business development and community investment. For example, the Enbridge School Plus Program aims to inspire young Aboriginal students in Canada to remain in school in order to achieve their full potential. Since 2009, the program has enriched the education of over 8,500 youth in over 50 schools by providing over \$2.2 million in grants in support of educational programming.

Our values and commitments are also reflected in our support to help fight cancer through the Enbridge Ride to Conquer Cancer in Quebec, Ontario, Alberta and British Columbia.

They're demonstrated by our Safe Community Program through which we provide monetary support to emergency responders in the communities in and around which Enbridge operates. In 2011, Enbridge contributed over \$1.2 million to the program, supporting approximately 425 first-responder organizations in right-of-way communities in Canada and the U.S.

Our values and commitments are the basis for the Enbridge Natural Legacy Program, which provides us with an opportunity to demonstrate our ongoing commitment to environmental stewardship, habitat remediation and protection.

And they're why we encourage employee volunteerism through our Volunteers in Partnership program and recognize employees' efforts to give back to their communities, allowing us to gain a better understanding of the communities in which it operates, the challenges they face and the ways Enbridge can best contribute.

In 2011, Enbridge invested \$13 million in more than 550 charitable, non-profit, and community organizations to help make communities better places to live. We believe that these investments are essential to being a good neighbour and are a contributing factor in maintaining the company's social license to operate.



GOALS AND PERFORMANCE

Social Scorecard Results				
Objectives	2011 Results	2010 Results	Details available in GRI Performance Indicator Section	Challenges
<b>SAFETY</b>				
Strive for zero accidents, injuries or incidents	<p>In 2011, one incident claimed the life of a contractor.<sup>1</sup> In February 2012, one incident claimed the life of an employee of a contractor.<sup>2</sup></p> <p>The enterprise-wide Lost Time Severity Rate was 3.02, which was a significant improvement from 2010 and significantly better than the five-year average of 6.93.</p> <p>The enterprise-wide Total Recordable Injury Frequency was 0.97, which was an improvement from 2010 and significantly better than the five-year average of 1.54.</p> <p>In January 2012, Enbridge implemented Lifesaving Rules across the whole enterprise, an initiative designed to reduce and eliminate fatalities within Enbridge's operations.</p>	<p>In 2010, one incident claimed the life of one employee and injured another seriously.<sup>3</sup></p> <p>The enterprise-wide Lost Time Severity Rate for 2010 was 10.78.</p> <p>The enterprise-wide Total Recordable Injury Frequency for 2010 was 1.81.</p>	LA7/LA8	Maintaining the best possible health and safety practices in a time of significant growth for the company

1. On October 11, 2011, there was a fatality at Enbridge Gas Distribution Inc. involving a contractor carrying out landscaping work in Mooretown, Ontario.  
 2. On February 28, 2012, a contractor's worker on the Woodland Pipeline Project suffered a fatal injury when the side boom he was operating flipped over into a ditch while helping prepare for a tie-in weld.  
 3. Nalvester Maxie died in January 2010 after a hydrogen sulfide release at the Bryans Mill natural gas treating plant near Douglassville, Texas.

Objectives	2011 Results	2010 Results	Details available in GRI Performance Indicator Section	Challenges
<b>HUMAN RESOURCES</b>				
<p>Attract the best talent and develop, engage, and retain workforce; <b>Target:</b> maintain “Best Employer Status” (65% or higher)</p> <p>Maintain employee turnover rate; <b>Target:</b> maintain voluntary turnover in the range of 2% to 4.5%</p> <p>Develop and retain critical talent; <b>Target:</b> maintain critical turnover in the range of 1% to 2%</p> <p>Maintain employee training investment at a market-competitive level; <b>Target:</b> between 1.25% and 1.5% of salary costs</p>	<p>Enterprise-wide employee engagement score from the 2012 Employee Perspectives Survey: 79%</p> <p>Voluntary turnover as a percentage of total workforce population: 3.7%</p> <p>Voluntary employee turnover as a percentage of total critical workforce: 2.3%</p> <p>Average expenditure per employee on Learning &amp; Development: approximately \$1,360. Expenditure as a percentage of salary costs: 1.24%</p>	<p>Enterprise-wide employee engagement score: 75%</p> <p>Voluntary turnover as a percentage of total workforce population: 2.6%</p> <p>Voluntary employee turnover as a percentage of total critical workforce: 1%</p> <p>Percentage of employees enterprise-wide who positively rate the statement “Employee Learning &amp; Development is strongly supported at this organization.”: 76%</p> <p>Average expenditure per employee on Learning &amp; Development – approximately \$1,300. Expenditure as a percentage of salary costs: 1.22%</p>	<p>Engagement: Labour Practices and Decent Work – Goals and Performance – Employee Communications</p> <p>Turnover: LA2</p> <p>Average Learning &amp; Development expenditure: LA10</p>	<p>Accelerated growth, especially in western Canada (the projected significant workforce increases associated with this growth; increasingly constrictive and tighter competitive market)</p> <p>Recruitment (ability to source, recruit, integrate, manage and grow people requires accelerated timelines and different approaches)</p> <p>Leadership capacity and capability (ensuring appropriate leadership capacity for both operational oversight and developing/mentoring individuals; broadening and deepening our leadership pool more quickly and consistently)</p> <p>Employee development (changing/emerging skill requirements)</p> <p>Workforce planning (ability to accurately forecast workforce numbers and skills required to successfully deliver business objectives; maintaining an appropriate work/life balance)</p>

Objectives	2011 Results	2010 Results	Details available in GRI Performance Indicator Section	Challenges
<b>COMMUNITY AND LANDOWNER RELATIONS / ABORIGINAL AND NATIVE AMERICAN RELATIONS</b>				
<p>Transparent, proactive and frequent communication</p> <p>Opportunities for communities to benefit from relationships with Enbridge</p>	<p>Through our Safe Community Program, began developing an interactive training program for emergency responders to cover all elements of our operations</p> <p>The 2011 Enbridge School Plus Program funded 33 eligible First Nations schools, and benefited over 3,900 First Nations youth</p> <p>As of the May 31, 2012, 60 per cent of eligible Aboriginal communities along the proposed Northern Gateway pipelines right of way, representing 60 per cent of the First Nations' population (and 80 per cent of the combined First Nations' and Metis' population) had agreed to be part owners of the proposed Northern Gateway pipelines.</p> <p>Northern Gateway launched a \$1.5-million Education and Training Fund to support flexible community-based training specific to the pipeline and construction sector.</p>	<p>For Alberta Clipper and Southern Lights pipelines, Enbridge and landowner association representatives formed a joint committee to address systemic issues along the right-of-way.</p> <p>Enbridge upstream projects (projects north of Edmonton) provided a total of \$7.7 million of economic opportunities to Aboriginal communities in Canada.</p> <p>The 2010 Enbridge School Plus Program funded 36 eligible schools and benefited over 3,850 youth.</p> <p>Northern Gateway announced an Aboriginal Economic Benefits Package, which included an offer to eligible Aboriginal groups of a long-term equity partnership with Northern Gateway and potential opportunities arising from the project, such as employment, training and procurement.</p>	<p>SO1, SO9, SO10 – Community and Landowner Relations; Aboriginal &amp; Native American Relations</p>	<p>Meeting stakeholders' diverse needs and expectations</p>

Objectives	2011 Results	2010 Results	Details available in GRI Performance Indicator Section	Challenges
<b>COMMUNITY PARTNERSHIPS AND INVESTMENTS</b>				
Invest in building sustainable communities, focusing on six areas: Lifelong Learning; Community Leadership; Natural Legacy; Arts & Culture; School Plus; and Safe Community	<p>Invested \$13 million in more than 550 charitable, non-profit, and community organizations</p> <p>Almost two years since its inception, our enterprise-wide Enbridge VIP Program, which supports the volunteer efforts of our employees, has engaged over 1,100 employees and contributed \$280,000 and over 4,500 hours to the community.</p>	Invested \$11.5 million in more than 350 charitable, non-profit and community organizations	SO1, SO9, SO10 – Community Partnerships and Investments	<p>Ensuring the greatest returns on investment</p> <p>Ensuring that investments truly help communities be sustainable</p> <p>Highly diverse communities and needs</p>

## **SOCIAL PERFORMANCE: LABOUR PRACTICES AND DECENT WORK**

### **GOALS AND PERFORMANCE**

Enbridge believes that people are the basis of the company's success and the foundation of its vision of being North America's leader in delivering energy. Enbridge recognizes that engaging a highly skilled workforce will be critical to the company as it moves toward achieving its business goals.

In 2011, the Human Resources (HR) Leadership Team updated Enbridge's HR strategy to ensure it continues to be aligned with the company's current and anticipated business needs.

Enbridge is growing and expanding quickly. During 2011, we had a net increase to our workforce of 578 permanent employees (full time and part time). At the end of the year we had 6,922 permanent employees (full time and part time) in Canada and the U.S., as well as 230 temporary and 1,610 contract employees who support seasonal and project work associated with specific projects. Moreover, in 2012 alone, Enbridge's workforce (employees plus contractors) is expected to grow by over 2,000 across the enterprise, and our new three-year HR strategy is designed to address this rapid growth. As at September 30, 2012, we had over 7,500 permanent employees and over 2,500 part-time, temporary and contract employees in Canada and the United States.

Key initiatives in 2011 related to the HR strategy included: refreshing Enbridge's values statement; developing a comprehensive resourcing strategy; building capacity for change management; and enhancing talent management. Included below are details on these and other ongoing HR initiatives:

#### **Enbridge Values**

Enbridge is building on our foundation of operating excellence by adhering to a strong set of core values—integrity, safety and respect—that reflect what is truly important to us as a company as we interact with communities, the environment, and each other. These values represent a constant guide by which we make our decisions, as a company and as individual employees, every day.

We convey Enbridge's values succinctly and effectively to employees so that they understand what it means to work for Enbridge and how we expect all employees to act when faced with decisions or choices. For new employees, our values provide a strong, clear and simple set of principles to help them integrate into the organization.

Enbridge's value statement is:

*Enbridge employees demonstrate Integrity, Safety and Respect in support of our Communities, the Environment and Each other.*

Associated with these values and commitments are a series of statements that clearly indicate the behaviours we expect from our employees:

### ***Integrity***

- Maintain truth in all interactions
- Do the right thing; do not take the easy way out
- Take accountability for our actions, without passing blame to others
- Follow through on commitments

### ***Safety***

- Relentlessly ensure the safety of our communities, customers, contractors, partners and employees
- Take a proactive approach to identifying and preventing safety issues
- Take immediate action when a safety issue is identified
- Continually seek ways to improve safety performance

### ***Respect***

- Value the contributions of others
- Take the time to understand the perspective of others
- Treat everyone with unfailing dignity

### ***Supporting our Communities***

- Support the company's effort in strengthening the communities in which we live and work
- Support the volunteerism efforts of our fellow employees

### ***Supporting the Environment***

- Consider the potential short and long term environmental impacts before proceeding with any activity
- Consistently strive towards a neutral footprint on the environment

### ***Supporting Each Other***

- Share knowledge and experience to help others
- Encourage individual development of each other
- Work collaboratively to achieve common goals

Over the next few years, we will apply these behavioural statements to all of our HR programs and services, including recruitment, succession planning, and performance management.

### **Resourcing Strategy**

In 2011, Enbridge's HR department developed a comprehensive Resourcing Strategy to address the significant workforce growth the company is experiencing. Key accomplishments related to this strategy include:

- Designed and staffed a dedicated recruitment team, which now provides leaders with beginning-to-end support in all their recruiting endeavours
- Modified Enbridge's Employee Referral Program by increasing award amounts and opening the program to contractors

- Developed targeted resourcing tools for Enbridge's frequently recruited/challenging positions
- Conducting a New Hire Survey to determine why recent hires chose Enbridge and how they found out about the company and its positions
- Engaged an external company to provide comprehensive resourcing support, including enhancement of social media as a recruitment tool and enhancing Enbridge's career website to reach new sources of talent

### **Building Change Management Capacity**

In a company growing as quickly as Enbridge, change is a part of our day-to-day life, so it is necessary to continue building Enbridge's in-house change-management capacity.

Historically, our business has relied on external consultants to manage our change initiatives. To address the challenges with this approach and to enhance our ability to lead and manage changes, HR introduced in 2011 a standard, in-house change management methodology. Sessions with senior leaders and teams across the enterprise have yielded positive feedback and have reinforced the importance of this work and the value it adds to the business.

To address their needs, Enbridge Gas Distribution has built an in-house team of change specialists that assists the business with managing large- and medium-scale change initiatives.

### **Talent Management**

Talent management is a fundamental focus at Enbridge and a critical component of the value proposition we offer to employees. Strong talent management processes also support Enbridge's success during periods of growth and change such as the one we are now experiencing, and ensure a seamless transition when we lose experienced employees due to retirement. Enbridge's commitment to effective people management practices, including employee recognition, identification of high-potential and succession candidates, enhanced employee development and career planning, have contributed to securing Enbridge's position as an employer of choice within the various markets in which the company operates.

Enbridge's leaders actively manage the attraction, retention, development and transition of the company's workforce, with support from the Human Resources department. Their work focuses on employee engagement, leadership and employee development, succession and career management, mentorship, and knowledge transfer.

Enbridge is committed to advancing its culture of leadership and employee development at all levels in the organization. Succession management is a significant focus as the company seeks to attract, develop, engage, retain and promote leaders of today and tomorrow. Senior-level succession management was another area of focus in 2011, and resulted in a broader range of job rotations across multiple business units and functions.

Enbridge also continued to enhance its leadership and employee development programs in 2011 with a particular focus on expanding our mentorship, project management and leadership programs.

Enbridge restructured its HR function in 2010 into enterprise-wide Centres of Expertise (COEs) to improve efficiencies and enhance our ability to leverage existing programs and services across the company. This initiative continues to bear fruit. For example, Enbridge University, which previously only supported employees in western Canada, was adopted in 2011 by all Enbridge business units across all company locations, increasing employee access to a wide range of courses. (For more information on Enbridge University, please see GRI Performance Indicator LA11 in this section, below.)

In addition to offering a broad array of in-house and external leadership and employee development programs, Enbridge offers a Tuition Reimbursement Program, which provides financial support to employees who advance their education through external learning programs in support of their current and future careers at Enbridge. Enbridge also offers a company-wide scholarship program to help employees' children access post-secondary education in the field of their choice.

### **Performance Management**

Performance management at Enbridge is central to the company's ability to meet its business objectives and manage and sustain a high-performance workforce. Leaders help employees contribute to Enbridge's business success by developing performance objectives that are aligned with the company's strategic business goals. Leaders provide regular performance feedback to employees to guide their performance, work planning and ongoing development in each performance year. Leaders are also accountable for working collaboratively with employees to address future development requirements through the creation of individual development plans.

Effective performance management ensures strong performance, provides an opportunity for leaders to recognize and reward performance, and gives leaders the information they need to support employees' ongoing development with a view to skills and career advancement.

For more information, please see GRI Performance Indicator LA12 in this section, below.

## **Diversity and Equal Opportunity**

Enbridge has a diverse workforce that is represented by multiple generations and minority group members.

With increasing frequency, women are taking leadership roles. As at December 31, 2011, women occupied 29 per cent of supervisory roles in the company, and 17 per cent of female employees were in senior management roles (director level and above).

In 2005, Enbridge initiated a program called Women@Enbridge to support women's career advancement and professional development. The program focuses on leadership development, mentorship and peer coaching, and has the ultimate goal of contributing to business value and the company's success. It was rolled out throughout the company in 2007, is well subscribed to by employees, and is an ongoing success.

In 2011, Enbridge's Liquids Pipelines business unit enhanced their focus on diversity by creating a Manager, Diversity position and implementing a three-year Employment Equity and Diversity Plan for all Liquids Pipelines operations in Canada. Initiatives and accomplishments in 2011 include:

- the establishment of an Employment Equity/Diversity Committee to provide advice and guidance in the development, implementation and evaluation of the Employment Equity and Diversity Plan;
- the development of the three-year Employment Equity and Diversity Plan to strategically manage diversity within Liquids Pipelines;
- launching a comprehensive communications strategy;
- developing new positions in partnership with the Rotary Club and the Alberta Association of Community Living;
- sponsoring the National Educational Association of Students with Disabilities conference for the first time in Edmonton;
- sponsoring scholarships for Women Building Futures and Students with Disabilities;
- developing a new Accommodation Policy; and
- developing online versions of Liquids Pipelines' self-identification questionnaire and accompanying training video for a February 2012 launch.

## **Total Compensation**

Enbridge has a full array of compensation and benefit programs designed to attract and retain talent. In addition to base salary, almost all regular (union and non-union) employees participate in an annual incentive plan, which rewards performance relative to a combination of predefined targets established at company, business unit and individual levels. Mid-term incentive plans are also extended to management-level roles.

On the benefits side, Enbridge offers a comprehensive selection of life, health and dental coverage, along with defined-benefit and defined-contribution pension plan options. The company reviews these programs regularly to maintain its competitive position and to ensure they are meeting employees' needs.

Enbridge's total compensation programs continue to evolve to meet business needs. Beyond delivering a competitive level of total compensation, the programs' design and flexibility will be critical in helping the company respond to changing workforce demographics and the evolving needs of employees.

For more information, please see GRI Performance Indicator LA3 in this section, below.

## **Positive Work Environment**

Enbridge is committed to developing and maintaining a diverse and inclusive work environment, and promotes a healthy and positive work environment.

Enbridge's policies affirm the company's strong commitment to treating all employees with dignity and respect. Enbridge also subscribes to the principles of a fair and equitable work environment.

Enbridge's work environment promotes a diversity of roles and enriched job experience through project work, secondment opportunities, cross-business unit mobility and participation on cross-functional teams.

Enbridge also supports employees who are interested in actively contributing to the communities in which they live and work, through a variety of volunteer opportunities and through the company's annual employee-led United Way campaign. Employees who significantly contribute to their communities on their own time are recognized annually and, under our Volunteers in Partnership program, a donation is made by Enbridge to their respective charities.

The value of mentoring and being mentored contributes to a positive work environment. Enbridge's mentorship programs, both internal and external, offer an additional opportunity for the company to support employees in their roles and enhance their workplace experience. Enbridge's internal mentoring program now operates across the

enterprise.

We regularly recognize our employees' achievements through a range of formal activities and programs, including service awards, monetary gifts, recognition through internal communications channels and creating opportunities for challenging assignments.

### **Employee Communications**

Enbridge continues to enhance its employee communications practices to ensure that employees are informed of business information, company developments and career opportunities by using the most appropriate communications tools and through the active support of supervisors who communicate with their teams.

Effective communications ensure that employees are informed about Enbridge and are engaged in their work, particularly during times of growth and change.

Enbridge's leaders seek to foster an environment committed to open and frank communication. The company offers a dedicated channel for employees to communicate their feedback to their leaders through the Employee Perspectives survey.

The Employee Perspectives Survey is an important component of Enbridge's commitment to its people and is an important gauge of employee engagement levels. Enbridge employees are invited to provide their feedback on a wide variety of topics, such as benefits, work-life balance, work processes, social responsibility and more. The results are then used to generate insights that are incorporated in the development of business and people-focused strategies. To allow full involvement of employees at all levels in determining solutions and provide sufficient time to implement action plans, Enbridge conducts this survey on a bi-annual basis. The survey is administered by the third-party consulting firm Aon Hewitt.

Enbridge's 2012 employee engagement score of 79 per cent was up 4 per cent compared with the previous survey in 2010 and placed the company within the "Best Employer" zone, significantly exceeding the North American average and several other benchmarks, including the averages for all Alberta employers, the Canadian oil and gas industry, and the North American energy industry. Engagement scores are based on responses to key engagement questions that reflect the percentage of team members who are emotionally and intellectually committed to the company. Team member engagement is a vital measure for any company because high engagement scores connect with high organizational performance, productivity, team-member satisfaction and retention. Key findings from the survey were that Enbridge employees think that:

- Enbridge's organizational reputation and people-focused policies are among its key strengths;
- challenging and enjoyable work keeps them engaged; and
- Enbridge should continue to focus on increasing performance-related drivers such as career opportunities and recognition, which were critical engagement drivers across all demographic groups.

Enbridge is proud of these survey results and is committed to building sustainable, people-focused strategies that respond to employee needs.

Enbridge continues to be recognized as a best employer. Listed below is some of the recognition we received in 2011:

- **Canada's Top 100 Employers:** Canada's Top 100 Employers project is a national competition to determine which employers lead their industries in offering exceptional workplaces for their employees. Enbridge was recognized for being an industry leader in attracting and retaining employees. This is the seventh consecutive year Enbridge has been on the list, and tenth since the list's inception 12 years ago.
- **Canada's Greenest Employers:** Launched in 2007, this special designation recognizes the employers that lead the nation in creating a culture of environmental awareness in their organizations.
- **Canada's Top Employers for Young People:** This special designation recognizes the employers that offer the nation's best benefits for younger workers.
- **Canada's Top Employers for Canadians Over 40:** This special designation recognizes employers that lead the nation in creating special programs and benefits of interest to employees aged 40 years and older. The broad range of pension and other initiatives a company offers are also considered in selecting the winners.
- **Alberta's Top Employers:** Alberta's Top Employers is an annual competition organized by the editors of Canada's Top 100 Employers in partnership with the Human Resources Institute of Alberta. The award recognizes companies for best practices in recruitment and retention

Enbridge continues to use a number of one-way and two-way communications vehicles to regularly exchange information with employees. Among these are:



- *elink*, the Enbridge Intranet, which was significantly improved in 2007 and 2008 in response to employee feedback and was recognized in 2009 by the Neilson Norman Group as being one of the 10 Best Company Intranets in the World;
- *Link*, Enbridge's employee magazine; and
- regular electronic bulletins for various business units.

One Enbridge business unit has implemented an executive “blog” feature that provides an opportunity for employees to post responses to blogs written by various Executive Team members. Enbridge's Corporate Social Responsibility team also initiated a blog focused on sustainability and CSR issues—addressing what the CSR team, the company and others are doing in the area of CSR; and inviting Enbridge employees to share their comments, ask questions, and make suggestions about how to improve the company's CSR performance.

In addition, Enbridge holds annual employee meetings across the organization to ensure that employees receive the latest information about the company's plans for strategic growth, CSR strategies and plans, and its investments in talent and people. These meetings provide an opportunity for employees to meet with Enbridge's Executive Management team, local senior leadership and guests to discuss challenges and opportunities, and to raise questions about the company's workplace, business and employee programs.

### **Labour Relations and Collective Bargaining**

Enbridge believes that healthy and cooperative labour relations—built on trust, respect and integrity—contribute to its business goals and objectives. The company continues to maintain and foster a cooperative approach to the union/management relationship through joint committees with various unions and industrial councils. These committees meet regularly to resolve outstanding matters, as well as to advise on and discuss issues of mutual concern. For more information about Enbridge employees covered by negotiated agreements, please see GRI Performance Indicator LA4 in this section, below.

### **Health and Safety Management**

Enbridge is committed to excellence in health and safety performance throughout the organization.

In January 2012, Enbridge implemented “Lifesaving Rules” and training for all Enbridge employees and contractors.

To draw up the rules, a team of safety professionals reviewed historical incidents throughout the company that have resulted in significant harm, such as fatalities.

The six Lifesaving Rules are:

1. **Hazard Management:** Always ensure an analysis of potential hazards has been completed and proper authorization received prior to starting the work.
2. **Driving Safety:** Only drive a vehicle or operate equipment when not under the effect of alcohol or any substances that cause impairment.
3. **Confined Space Entry:** Always follow procedures for Confined Space Entry.
4. **Ground Disturbance:** Always follow procedures for locating, positively identifying and excavating buried facilities.
5. **Isolation of Energized Systems:** Always follow procedures for Lockout / Tag-out.
6. **Reporting of Safety-Related Incidents:** Always report significant safety related incidents.

The Lifesaving Rules are applicable to all employees and contractors, and are communicated, clarified and reinforced across all business units at Enbridge.

For their part, the company's business units have health and safety management systems in place and implement annual health and safety initiatives aimed at reducing risks and incidents and ensuring continuous improvement.

Following is a summary of current health and safety actions by business unit:

#### **Liquids Pipelines**

Liquids Pipelines' goal is to achieve a safety culture in which people look out for one another and work collaboratively in identifying, preventing and correcting health and safety issues.

Liquids Pipelines has embraced safety as a core value, has established a target of zero injuries and is committed to continually improve its safety performance. The following is a summary of 2011 health and safety initiatives that were undertaken in order to focus on and improve upon various key elements within the existing Liquids Pipelines Health & Safety Management System.

- **Safety Culture:** With the assistance of DuPont Sustainable Solutions and under the direction of an Executive Steering Team that was established, Liquids Pipelines dedicated significant effort to strengthening its safety

culture in 2011. Activities included completion of a safety perception survey across Liquids Pipelines, provision of safety training sessions for Operations Managers, implementation of safety culture improvement teams in the pipeline control centre and two operating regions, and implementation of process improvement teams focused on contractor safety management and incident investigation. In addition, a process safety management scoping study was completed to define the scope of process safety that exists within Liquids Pipelines and to assess the need and scope for any further work required in this area. Finally, in conjunction with other Enbridge business units, Liquids Pipelines developed and communicated six new Life Saving Rules for employees and contractors.

- **Hazard Assessment:** An effective hazard identification, assessment and control program is critical to the success of a Health & Safety Management System. A new hazard assessment standard was implemented in 2011 across all operating regions within Liquids Pipelines. The new standard provides guidance and requirements for identification, assessment, and control of hazards associated with the design, construction, operation and maintenance of the pipeline system.
- **Safety Training:** Liquids Pipelines completed a review of safety training requirements for field operation employees and implemented an electronic learning management system for managing and tracking completion of safety training. The system is further being used as a platform for delivery of various electronic safety training courses (e-courses) required by field operations employees.
- **Integrated Incident Management System:** In conjunction with other Enbridge business units, Liquids Pipelines participated in the evaluation, selection and purchase of an Enbridge enterprise-wide, third-party environmental, health and safety software suite. Upon its purchase, a Liquids Pipelines project was initiated and is under way to develop an integrated incident management system tool for use in completing incident notifications, recording incident investigation findings, identifying causal factors, identifying and tracking completion of recommendations, analyzing incident trends, and reporting incident statistical data. The integrated incident management tool will be used for incidents that result in or have the potential to result in impacts to people, environment, property, and process. The tool is expected to be fully implemented in 2012.
- **Driving Safety/Awareness Initiative:** Given the geographical extent of the Enbridge Liquids Pipelines system, driving safety is a key element and focus area of the Health & Safety Program. In addition to ongoing participation in driver training programs, a comprehensive participative "Driving to Excellence" campaign was implemented across Liquids Pipelines in 2011. The intent was to raise awareness regarding three key areas as identified within a Driving Perception Survey that was conducted in 2010 and through analysis of motor vehicle incidents that occurred from 2008-2010. The three key areas of focus included vehicle circle checks, distracted driving and parking.
- **Safety Management Performance Standards:** Safety Management Performance Standards were established and implemented for Operations People Leaders in 2010 and were continued in 2011. The standards require operations management personnel to complete and document targeted numbers of safety observations, work practice inspections, field hazard assessment reviews and contractor work practice inspections at specified frequencies. These standards were developed to increase operations management participation and oversight of safety practices in order to further develop and sustain a strong safety culture.

### **Major Projects**

Enbridge Major Projects (MP) is committed to the protection of the health and safety of our employees, contractors, and the general public. We view safety as a core value, and believe that all incidents are preventable, and that effective health and safety management is a key project deliverable. On an annual basis, MP uses leading and lagging safety performance indicators to identify key opportunities to strengthen our construction contractor's safety performance and project safety performance overall.

- **Key Construction Safety Risks:** MP has identified key safety risks that cause a high frequency of injuries or present a high potential for injury such as hand hazards, ground disturbance and the use of side booms/pipe layers. MP is introducing targeted safety programs and practices to address these risks.
- **Construction Safety Standards:** MP recognizes that clear expectations are the foundation of strong performance. To better define our safety expectations and ensure they represent industry best practice, MP is revising the current contractor safety expectations to ensure they cover the relevant construction activities and represent industry best practice.
- **Supervisory Safety Leadership:** Strong consistent safety leadership from supervision is a key expectation of our construction contractors and a driver of positive safety performance. MP is undertaking a program to

develop construction specific safety leadership training that will be conducted at the initiation of a project to ensure that expectations are clear and a commitment to the safe execution of the project is achieved.

- **Industry Safety Leadership:** The safe execution of our projects is significantly impacted by the overall safety culture of the construction industry. To drive an improvement in the safety culture of the pipeline construction industry, MP will be leading a Pipeline Construction Safety Workshop that will involve key construction contractors and pipeline industry partners.

### **Enbridge Gas Distribution (EGD)**

EGD is strongly committed to the safety of the general public, its customers, employees and contractors. EGD's continued commitment to improve safety performance in 2011 emphasized the concept that injuries are an exception to the norm; and the theme "Path to Zero" accentuates the efforts toward zero accidents and incidents. EGD is strengthening its health and safety culture through a number of ongoing initiatives:

- **Safety Culture:** EGD recognizes the role of a strong and positive health and safety culture in keeping employees safe. Part of this involves management engagement and the establishment of clear expectations. Central Safety Committee, a new permanent governance structure responsible for managing all aspects of safety at EGD, is in operation and providing valuable safety leadership and decision making. Local safety committees are being established regionally to drive safety innovations both top-down and from the field upwards, and enhance focus and direction for safety within line management. A number of safety process improvement teams have been established to sustain and enhance the effectiveness of various safety programs such as: incident investigations; safety observations; safety communications and engagement; and process hazard assessment. The introduction of six key Life Saving Rules has been effectively rolled-out to employees and contractors to promote and safeguard the principles of individual responsibility.
- **Safety Performance Measurement:** EGD continues to emphasize the importance of measuring its safety performance metrics (Employee Safety Index, Public Safety and Reliability Index) by continuing to set aggressive targets.

An increased focus on safety and reliability of the natural gas systems is also supported by the EGD scorecard, where a number of safety- and pipeline integrity-related key performance indicators are heavily weighted and account for 40 per cent of the total EGD scorecard. Each EGD employee has specific safety objectives as part of the annual performance goals to help support the EGD scorecard and to drive excellence in health and safety performance throughout the organization.

### **Gas Transportation (GT)**

GT's health and safety philosophy reflects Enbridge's strong, company-wide commitment to excellence in health and safety performance.

In 2010, GT developed and implemented a comprehensive Health and Safety Management System (HSMS) to provide a structured approach and a framework for measurement and accountability of activities.

In 2012, GT is carrying out a comprehensive Operational Risk Management program that includes several initiatives specific to worker safety. As part of this program, GT has also contracted DuPont Sustainable Solutions to provide consulting services related to assessment, implementation and sustainability of an improved safety culture within the organization. Specific initiatives associated with this program and the safety culture initiative include:

- **Operating Procedures:** Enbridge recognizes the importance that clear and comprehensive operating procedures play in safe operations. Accordingly, GT is undertaking an initiative to revise all operating procedures within its Process Safety Management (PSM) facilities so that they cover key processes within these facilities.
- **Process Safety information (PSI):** GT has undertaken an initiative to update PSI information at its PSM facilities throughout the business unit. In recognition of the importance of this information in the safe operation of its facilities, GT will institute a Continuous Improvement Program in conjunction with the Management of Change (MOC) program to ensure that PSI is being properly generated and modified when necessary.
- **Safety Organizational Structure:** A strong safety culture is one in which employees are included in the overall management of safety as a discipline. In 2012, GT will undertake an initiative to develop and implement an integrated safety organizational structure that includes line staff.

- **Safety Leadership:** A key element of a strong safety culture includes strong leadership from all levels of management. GT will provide comprehensive training and coaching to all People Leaders to further drive this strong culture.
- **Safety Training:** GT will conduct a review of training requirements for all field employees and the Learning Management System will be implemented to track and manage these training metrics for each employee.

## **POLICY**

### **The Enbridge People Strategy**

Based on Enbridge's belief that people are and will forever be the basis of the company's success, Enbridge has adopted a People Strategy to proactively and deliberately manage the employment relationship through a set of enterprise-wide principles.

The People Strategy represents the articulation of the guiding principles that are the foundation of policies, programs, practices and due diligence within Enbridge and is consistent with the Enbridge governance structure.

These principles are applied across the enterprise, while empowering business unit discretion in implementation.

The Enbridge People Strategy was adopted by the Corporate Leadership Team in July 2005 and was integrated into the 2005 Enbridge Strategic Plan. It remains a foundational cornerstone today.

The strategy incorporates the following elements:

**Employee accountability** – Enbridge employees have the responsibility and authority to guide and operate the business.

**Workforce planning and talent management** – Enbridge actively invests in its people through workforce planning, talent management leadership development, succession planning and performance management.

**Total compensation** – Enbridge is committed to providing competitive total compensation that will directly contribute to its ability to attract and retain employees.

**Employee communication** – Enbridge is committed to a culture of continuous open and frank communication.

**Work environment** – Enbridge is committed to a positive and challenging work environment that facilitates employee performance, employee engagement and a culture of innovation.

### **Enbridge's Health & Safety Commitment**

Enbridge's strong commitment to the protection of the health and safety of our employees and the general public is spelled out in our [Environment, Health & Safety Policy](#).

We believe that prevention of accidents and injuries benefits everyone, and delivers increased value to our shareholders, customers and employees.

Enbridge's goal is to have no accidents. To this end, we conduct business in a manner that recognizes health and safety management as an integral part of our activities, and our employees are responsible for conducting their activities in a manner that makes health and safety a primary part of their daily activities.

## **TRAINING AND AWARENESS**

In keeping with the People Strategy, Enbridge's Human Resources department and the company's leadership offer a number of programs and services to advance and reinforce Enbridge's focus on people and relationships. Among these are:

- enhanced orientation and "onboarding" programs and practices for new employees;
- workforce transition programs for employees leaving Enbridge;
- leadership and employee development programs;
- internal and external mentorship programs;
- the Women@Enbridge community and the delivery of programs in each business unit;
- the Enbridge Intranet to support employee communications;

- recruitment and career development programs;
- employee benefit programs; and
- individual development and career planning.

## Health and Safety Training

Enbridge's individual business units are responsible for health and safety training, which includes such elements as company-wide Safety Stand Downs and in-house training to ensure that all Enbridge employees and contractors have the skills needed to safely perform their duties.

## LABOUR PRACTICES AND DECENT WORK PERFORMANCE INDICATORS

### EMPLOYMENT

#### LA1

Total workforce by employment type, employment contract and region, broken down by gender.

#### Permanent employees

As at December 31, 2011, Enbridge employed 6,922 permanent employees. This total was divided as follows:

	Male	Female	Total
Liquids Pipelines (Canada & US)	1,763	705	2,468
Major Projects (Canada & US)	189	108	297
Gas Pipelines (Gas Transportation)	1,213	398	1,611
International	23	14	37
Gas Distribution and Services	1,337	860	2,197
Corporate	152	160	312
<b>ENTERPRISE</b>	<b>4,677</b>	<b>2,245</b>	<b>6,922</b>

A large majority (99 per cent) of Enbridge's permanent workforce is full time. The breakdown is 6,843 full time and 79 part-time permanent employees.

#### Temporary and contract employees

As at December 31, 2011, Enbridge employed 230 temporary employees – 118 male and 112 female. There were 1,610 contractors working at Enbridge in various capacities at that point in time. The contractor workforce was divided as follows:

	Male	Female	Total
Liquids Pipelines (Canada & US)	447	209	656
Major Projects (Canada & US)	262	113	375
Gas Pipelines (Gas Transportation)	76	53	129
International	5	1	6
Gas Distribution and Services	227	66	293
Corporate	95	56	151
<b>ENTERPRISE</b>	<b>1,112</b>	<b>498</b>	<b>1,610</b>

## LA2

Total number and rate of new employee hires and employee turnover by age group, gender and region.

### New employee hires

Enbridge hired 933 regular employees in 2011—614 males and 319 females. For the year ended December 31, 2011, the breakdown of new hires by gender and business unit was as follows:

	Liquids Pipelines (Canada & US)	Major Projects (Canada & US)	Gas Pipelines	Gas Distribution	Corporate & International	Enterprise-wide
Male	221	42	240	78	33	614
Female	128	36	61	58	36	319
<b>Total</b>	<b>349</b>	<b>78</b>	<b>301</b>	<b>136</b>	<b>69</b>	<b>933</b>

For the year ended December 31, 2011, the breakdown of new hires by age group and business unit was as follows:

	Liquids Pipelines (Canada & US)	Major Projects (Canada & US)	Gas Pipelines	Gas Distribution	Corporate & International	Enterprise-wide
Up to 24	63	9	22	25	1	120
25-29	67	22	68	32	16	205
30-34	69	8	45	19	15	156
35-39	53	10	39	14	10	126
40-44	44	12	29	19	8	112
45-49	25	7	38	16	6	92
50-54	20	4	40	10	9	83
55-59	7	5	16	1	4	33
60+	1	1	4	0	0	6
<b>Total</b>	<b>349</b>	<b>78</b>	<b>301</b>	<b>136</b>	<b>69</b>	<b>933</b>

## Turnover

Total turnover for 2011 was 445 permanent employees. For the year ended December 31, 2011, the turnover rate breakdown by gender and region business unit and gender was as follows:

		Liquids Pipelines (Canada & US)	Major Projects (Canada & US)	Gas Pipelines	Gas Distribution	Corporate & International	Enterprise
Voluntary	Male	3.2%	1.6%	8.0%	0.7%	5.7%	3.8%
	Female	4.3%	5.6%	4.5%	1.4%	7.5%	3.5%
	<b>Total</b>	<b>3.5%</b>	<b>3.0%</b>	<b>7.1%</b>	<b>1.0%</b>	<b>6.6%</b>	<b>3.7%</b>
Retirement	Male	1.2%	0.5%	0.7%	3.0%	1.7%	1.6%
	Female	1.4%	0.0%	0.5%	2.8%	1.1%	1.7%
	<b>Total</b>	<b>1.3%</b>	<b>0.3%</b>	<b>0.6%</b>	<b>2.9%</b>	<b>1.4%</b>	<b>1.6%</b>
Involuntary	Male	0.8%	0.5%	1.8%	1.1%	1.1%	1.2%
	Female	1.1%	0.9%	2.5%	0.3%	1.7%	1.1%
	<b>Total</b>	<b>0.9%</b>	<b>0.7%</b>	<b>2.0%</b>	<b>0.8%</b>	<b>1.4%</b>	<b>1.1%</b>
<b>Total Turnover</b>	Male	5.2%	2.6%	10.5%	4.9%	8.6%	6.5%
	Female	6.8%	6.5%	7.5%	4.5%	10.3%	6.3%
	<b>Total</b>	<b>5.6%</b>	<b>4.0%</b>	<b>9.7%</b>	<b>4.7%</b>	<b>9.5%</b>	<b>6.4%</b>

For the year ended December 31, 2011, the turnover by age group was as follows:

		Up to 24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60+	Total
Voluntary	Male	2.0%	4.5%	5.5%	4.8%	3.8%	3.5%	3.2%	1.7%	4.1%	3.8%
	Female	7.8%	7.4%	6.4%	4.4%	2.1%	2.2%	1.8%	0.5%	1.1%	3.5%
	<b>Total</b>	<b>3.8%</b>	<b>5.6%</b>	<b>5.8%</b>	<b>4.6%</b>	<b>3.2%</b>	<b>3.1%</b>	<b>2.8%</b>	<b>1.4%</b>	<b>3.4%</b>	<b>3.7%</b>
Retirement	Male	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.2%	14.7%	1.6%
	Female	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	27.7%	1.7%
	<b>Total</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>5.3%</b>	<b>17.9%</b>	<b>1.6%</b>
Involuntary	Male	1.4%	2.0%	1.4%	0.5%	1.6%	0.8%	1.3%	0.3%	1.4%	1.2%
	Female	0.0%	1.6%	1.3%	0.4%	1.8%	0.6%	1.8%	1.0%	0.0%	1.1%
	<b>Total</b>	<b>0.9%</b>	<b>1.9%</b>	<b>1.4%</b>	<b>0.5%</b>	<b>1.7%</b>	<b>0.8%</b>	<b>1.5%</b>	<b>0.5%</b>	<b>1.0%</b>	<b>1.1%</b>
<b>Total Turnover</b>	Male	3.4%	6.5%	6.9%	5.3%	5.4%	4.4%	4.6%	7.3%	20.2%	6.5%
	Female	7.8%	8.9%	7.7%	4.7%	3.8%	2.8%	3.5%	7.2%	28.7%	6.3%
	<b>Total</b>	<b>4.7%</b>	<b>7.4%</b>	<b>7.2%</b>	<b>5.1%</b>	<b>4.9%</b>	<b>3.8%</b>	<b>4.2%</b>	<b>7.3%</b>	<b>22.3%</b>	<b>6.4%</b>



### **LA3**

*Benefits provided to full-time employees that are not provided to temporary or part-time employees, by significant location of operations.*

Enbridge believes in sharing the success of the company with the people who make it happen—our employees.

Enbridge's competitive and flexible Total Compensation package—which includes compensation, benefits, education reimbursement and time off—allows each employee to choose the plan that best suits the needs of his or her situation.

We provide competitive base salaries for our employees, as well as an incentive compensation program that rewards employees' personal performance, as well as the performance of the company overall and the business unit to which they belong.

Enbridge's benefit programs include a comprehensive selection of health and welfare, income protection, savings, and defined-benefit and defined-contribution pension plan options that are market based and competitively positioned to ensure they are meeting employees' needs.

Some of the highlights of Enbridge's Total Compensation package include:

- a flexible benefits program that allows each employee to select the level of coverage needed for his or her family in the areas of health, dental, insurance and disability;
- a pension plan to help employees in their retirement;
- business travel accident insurance;
- an annual performance-based incentive compensation program;
- external education and training cost reimbursement for courses that are approved by the employee's supervisor;
- an employee scholarship program offered to employees' children who attend post-secondary educational institutions;
- paid time off/vacation, plus paid personal days off (depending on location);
- an Employee and Family Assistance Program;
- a fitness subsidy program;
- an emergency childcare program;
- flexible work hours and alternative work arrangements; and
- a group savings plan.

We also encourage our employees to actively participate in community organizations. Through the company's Volunteers in Partnership (VIP) program, we recognize employee contributions of time and dollars to charitable organizations by providing additional support in terms of paid volunteer time and top-up financial contributions.

#### **Part-time and temporary employees**

In Canada, permanent part-time employees working 24 or more hours per week receive the same benefits and employer-provided flex credits as full-time employees. Employees working more than 14 and less than 24 hours per week also receive the same benefits but have a reduced level of employer-provided flex credits.

Temporary employees have reduced coverage and are only eligible for business travel accident insurance, life insurance equal to their annual salary, coverage for health and dental subject to 50 per cent co-insurance, and 50 per cent provincial health care coverage (where applicable).

In the U.S., full-time employees—i.e., employees who work 30 hours or more per week—receive a full complement of benefit options. Part-time employees are eligible to participate in the cash balance pension plan, the 401(k) plan and receive business travel accident insurance.

### **LA15**

*Return to work and retention rates after parental leave, by gender.*

Enbridge does not currently track this information but we will endeavour to provide it in the 2013 CSR Report.

## LABOUR/MANAGEMENT RELATIONS

### LA4

*Percentage of employees covered by collective bargaining agreements.*

As of December 31, 2011, there were 1,057 employees covered by a negotiated agreement, representing 15.3 per cent of the permanent employee base.

Area within Enbridge	Bargaining Unit	Geographical Area	Number of Employees as of December 31, 2011
Enbridge Gas Distribution	Local 975, Communications, Energy and Paperworkers Union of Canada (CEP)	Ontario (Franchise Area)	750
Enbridge Gas Storage	Joint Industrial Council	Sarnia, Ontario	14
Liquids Pipelines – Canada	Joint Industrial Councils (3)	Northwest Territories, Alberta, Saskatchewan	126
Liquids Pipelines – U.S.: Chicago and Superior Regions	Local 2003, United Steel Workers of America (USW)	Minnesota, Wisconsin, Michigan, Illinois, Indiana	118
Liquids Pipelines – U.S.: Cushing Region	United Steel Workers of America (USW)	Kansas, Oklahoma, Missouri	24
St. Lawrence Gas	International Brotherhood of Electrical Workers (IBEW)	Massena, New York	25
<b>Total Number of Employees Covered by a Negotiated Agreement</b>			<b>1,057</b>

### LA5

*Minimum notice period(s) regarding operational changes, including whether it is specified in collective agreements.*

The Enbridge Gas Distribution/Local 975 CEP collective agreement contains a 60-day minimum notice period.

Enbridge's other collective bargaining agreements do not contain any minimum notice periods.

## OCCUPATIONAL HEALTH AND SAFETY

### LA6

*Percentage of total workforce represented in formal joint management-worker health and safety committees that help monitor and advise on occupational health and safety programs.*

Enbridge's entire workforce is represented in formal joint management-worker health and safety committees. While the structure of these committees varies between business units, a common element is the participation of both employees and management representatives.

In 2011, each of the operating business units within Enbridge began a Safety Culture enhancement initiative. One component of this initiative was to establish a clear Health & Safety Committee structure that serves to promote participation and engagement at all levels and to establish clear lines of communication for decision making within the organization. These committees and the new structure are being implemented in 2012.

There was a significant increase in EH&S personnel within the company, with the number rising from 94 in 2010

to 123 in 2011. This represents Enbridge's increased focus on EH&S excellence and the company's commitment to reaching a world-class EH&S culture.

## **LA7**

*Rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities by region and by gender.*

*Note: The statistics quoted below are consolidated data for the following operating business segments and units: Liquids Pipelines; Gas Pipelines (the Enbridge operated portion of the Vector natural gas pipeline); Enbridge Gas Distribution; Gas Transportation; and Major Projects. They are based on the 6,573 employees working for those entities as of December 31, 2011, and exclude corporate (head office) employees.*

Enbridge's injury rate in 2011 was 0.97 recordable injuries per 200,000 hours worked, compared with 1.81 in 2010. (Although we do report and track first-aid incidents, they are not included in the frequency rate.) The rate of 0.97 is significantly stronger than the five-year average of 1.54, and represents one of the organization's strongest years compared with historical performance.

Enbridge's lost-day rate in 2011 was 0.18 lost days injuries per 200,000 hours worked, compared with a rate of 0.28 in 2010. This compares favourably to a six-year historical average of 0.30. The 2011 rate of 0.18 is also one of the strongest recorded by Enbridge compared with historical performance. (Lost days begin the day after the incident and include calendar days after the date of the injury.)

All incidents, whether regulatory recordable or not, are reported to local supervisors, as well as the company's Health & Safety Department for tracking, trending and communications regarding potential lessons learned.

Enbridge's absentee rate in 2011 was 3.77 days absent per employee.

### **Work-related fatality**

Enbridge had no employee fatalities in 2011.

However, we are deeply saddened to report that, on October 11, 2011, there was a fatality at Enbridge Gas Distribution Inc. (EGD) involving a contractor carrying out landscaping work in Mooretown, Ontario. In August 2012, the Ontario Ministry of Labour charged EGD with five counts under the *Occupational Health & Safety Act* (Ontario) in connection with the event. We do not report or comment on details relating to matters that are before the courts.

In addition, on February 28, 2012, an Enbridge contractor died while working on our Woodland Pipeline Construction Project in northern Alberta. This individual sustained a fatal injury when the side boom he was operating flipped over into a ditch while he was helping prepare for a tie-in weld.

Enbridge immediately stopped work both at the site and on the pipeline spread. Alberta Occupational Health & Safety (OH&S) attended the scene of the incident and issued a Stop Use Order for the use of all side booms on the spread and a Stop Work Order for the tie-in activities at the location of the incident. Prior to construction resuming, an OH&S Order required a full mechanical inspection of all side booms and a revision to the Contractor's Job Safety Analysis for tie-in welding.

Enbridge went beyond OH&S requirements and requested that the contractor's mechanical inspections be vetted by an independent consultant before allowing side boom work to resume. Additionally, the contractor was only allowed to return to work after the OH&S orders were lifted and all operators (a) reviewed the safe-work procedures, practices and the Job Safety Analysis for side booms and pipe layers, and (b) physically demonstrated knowledge in operating the emergency shutdown devices on the side booms and excavators.

Enbridge has conducted an internal investigation into the incident and cooperated fully with the emergency officials and regulators in their incident investigation.

## **LA8**

*Education, training, counseling, prevention and risk-control programs in place to assist workforce members, their families or community members regarding serious diseases.*

Enbridge takes safety seriously. Before employees are authorized to perform any job that may have health or safety risks associated with it, they must complete mandatory training. As well, within each of the company's business units and at each of its sites, Enbridge has established health and safety committees that meet regularly to discuss and proactively implement changes in response to legislation, new policies and practices and new understandings gained from analyzing incidents.

If an employee should be injured on the job, Enbridge arranges for counselors to be brought in for the team.

Enbridge also offers the Employee and Family Assistance Program (EFAP) to employees and their families in need of help in a variety of areas. In addition to providing assistance in dealing with an illness or injury, employees and their families can access help related to:

- alcohol and drug dependencies;
- marital and family concerns;
- outplacement and retirement issues;
- bereavement;
- depression; stress and anxiety; and
- long-term or major illness.

All services under the EFAP are provided by, or coordinated through, an independent consulting firm with certified professional counselors. All EFAP counselors are qualified psychologists or social workers, who are required to maintain employees' confidentiality.

Under the EFAP, Enbridge covers the initial assessment and the first four hours of counseling. Extended health care plans provide ongoing coverage to certain maximums.

Enbridge's short- and long-term disability plans also include a variety of healthcare, support and counselor assistance.

Additionally, Enbridge has in effect several programs and initiatives that focus on the health of our employees and families such as pandemic planning and other health initiatives within the business units.

In January 2012, Enbridge implemented a significant safety initiative called Lifesaving Rules across the whole enterprise. A team of safety professionals reviewed historical incidents throughout the company that have resulted in significant harm, including fatalities. These incidents were reviewed for common elements in an effort to determine common high-risk activities that could be focused on in an elevated manner to reduce and eliminate fatalities within Enbridge's operations. The outcome of this review was Enbridge's Six Lifesaving Rules, as follows:

1. **Hazard Management:** Always ensure an analysis of potential hazards has been completed and proper authorization received prior to starting the work.
2. **Driving Safety:** Only drive a vehicle or operate equipment when not under the effect of alcohol or any substances that cause impairment.
3. **Confined Space Entry:** Always follow procedures for Confined Space Entry.
4. **Ground Disturbance:** Always follow procedures for locating, positively identifying and excavating buried facilities.
5. **Isolation of Energized Systems:** Always follow procedures for Lockout / Tag-out.
6. **Reporting of Safety-Related Incidents:** Always report significant safety related incidents.

The Lifesaving Rules are applicable to all employees and contractors, and are communicated, clarified and reinforced across all business units at Enbridge to all employees and contractors and when violated result in an increased level of scrutiny and termination as the first consideration.

## **LA9**

*Health and safety topics covered in formal agreements with trade unions.*

The business units (and partial segments) within the Enbridge group of companies that employ individuals who are represented by trade unions are Liquids Pipelines and Enbridge Gas Distribution (EGD). However, only the collective agreement that EGD has with the Communications, Energy and Paperworkers Union (CEP), local 975, includes topics related to health and safety. Article 2 of the Union Management Cooperation document states the following:

2.04 – The company and the Union recognize the importance of a strong commitment to the Health and Safety of our work force and therefore agree and commit to the following:

- a. Compliance with a standard that, as a minimum, meets all applicable laws and regulations as of April, 1998, and reflects applicable industry standards.
- b. That Enbridge will provide and maintain a safe and healthy work environment, safe equipment and will follow operating practices that will safeguard all employees and the public.
- c. The elimination of the source of dangers to the health, safety and physical well being of our employees is of paramount importance.
- d. That procedures are in place to ensure the efficient delivery of, and accessibility to, Health and

Safety Training.

- e. That Enbridge and the Union will work together to ensure all employees are aware of their rights and obligations with respect to these commitments.
- f. That unacceptable performance of health and safety responsibilities will not be tolerated.
- g. Development and communication of a Safety Management System.

2.05 – The company and the Union also recognize the importance of Joint Health and Safety Committees, comprising knowledgeable employees, to achieve these commitments and agree to ensure that the committees have the necessary support to fulfill their role.

## **TRAINING AND EDUCATION**

### **LA10**

*Average hours of training per year per employee by employee category.*

In 2011, Enbridge's investment in training and development was approximately 1.2 per cent of total salary costs. This equated to \$1,363 per employee.

We use a learning management system to track training information pertaining to our employees. However, because Enbridge's business units have specific training needs and training programs that are not centrally managed, no data is available to report enterprise-wide statistics on the yearly average number of training hours.

Enbridge's investment in training and education provides internal technical training, functionally specific training, and leadership and core competency training, enabling our employees to acquire and enhance the skill sets needed to perform their best in their current roles and prepare for future roles.

### **Health and Safety Training**

Environment, Health & Safety training in 2011 totaled 36,567 hours, or an average of 5.6 hours per employee.\*

\* This includes the 6,573 employees working for Liquids Pipelines, Gas Pipelines (the Enbridge operated portion of the Vector natural gas pipeline), Enbridge Gas Distribution, Gas Transportation, and Major Projects as at December 31, 2011, and excludes Corporate (head office) employees.

### **LA11**

*Programs for skills management and lifelong learning that support the continued employability of employees and assist them in managing career endings.*

Enbridge values its employees and believes in continuously providing opportunities for the development their skills and capabilities. The company has learning and development programs available to all employees and leaders. Programs are regularly evaluated in order to make enhancements and standardize the offerings across the organization where appropriate.

Enbridge has a learning framework that supports employees and leaders across the company in achieving their development goals. Employees create individual development plans regularly and, in partnership with their leaders, execute their development plans annually.

Enbridge offers a comprehensive "Getting Onboard at Enbridge" program that supports new employees throughout their first three months of employment at Enbridge to ensure early success in their new roles.

Our Education Tuition Reimbursement Program provides financial support to employees who advance their education through external learning programs in support of their current and future careers at Enbridge.

Enbridge continues to offer relevant, high-calibre internal programs to meet the diverse non-technical, functional, and technical learning and development needs of our employees across North America.

We offer internal programs that enhance core and leadership competencies across the organization through our Enbridge University (ENBU) via three unique campuses—two in Canada and one in the U.S. Each campus offers a variety of programming in the areas of energy studies, business acumen, leadership development, project and risk management, and personal excellence. Programs are led by either external facilitators or subject-matter experts from within Enbridge. Courses are delivered through instructor-led sessions or via self-directed online courses, depending on the nature of the course material. Courses are focused on concepts and skills that Enbridge employees and leaders can apply directly in their current roles and will help them qualify for future opportunities.

Enbridge also supports development opportunities through:

- externally-offered courses, certificates, designations, and degrees;
- on-the-job training through special projects or volunteer experiences;
- coaching and mentoring; and
- self-directed learning such as reading and e-learning modules.

Other approaches that Enbridge uses to broaden and develop staff include:

- in-house career planning workshops;
- providing information to employees regarding flexible job progression through career ladders;
- providing opportunities for targeted internal job rotations or job assignments; and
- specific training on the individual development planning process across Enbridge.

As employees approach retirement, Enbridge offers pre-retirement workshops to assist them in making a successful transition to retirement from the workplace. This includes segments on financial planning, goal setting and lifestyle changes.

## **LA12**

*Percentage of employees receiving regular performance and career development reviews, by gender.*

In 2011, Enbridge leaders completed performance reviews—via Enbridge’s online performance management system—covering 80 per cent of the company’s permanent employees. Performance feedback for the remaining ~20 per cent was captured through a paper-based mechanism. The 20 per cent includes unionized employees, as well as some small groups in operating areas in Canada and the U.S.

## **DIVERSITY AND EQUAL OPPORTUNITY**

### **LA13**

*Composition of governance bodies and breakdown of employees per employee category according to gender, age group, minority group membership and other indicators of diversity.*

#### **Board of Directors**

With the retirement of Patrick D. Daniel as Director/President & CEO on September 30, 2012, Enbridge’s Board of Directors comprises 12 Directors, 11 of whom are considered to be independent and one of whom, Al Monaco, serves as Enbridge’s President & CEO.

As at October 1, 2012, Enbridge Inc.’s Board of Directors consisted of the following directors:

- David A. Arledge
- James J. Blanchard
- J. Lorne Braithwaite
- J. Herb England
- Charles W. Fischer
- V. Maureen Kempston Darkes
- David A. Leslie
- Al Monaco
- George K. Petty
- Charles E. Shultz
- Dan C. Tutcher
- Catherine L. Williams

Biographies of the directors are available at  
<http://www.enbridge.com/InvestorRelations/CorporateGovernance/BoardofDirectors.aspx>.

## Permanent employees

As at December 31, 2011, Enbridge employed 6,922 permanent employees. The approximate breakdown by gender was 68 per cent male and 32 per cent female. The breakdown by age group was as follows:

Age Group	Employee Count
up to 24	211
25 to 29	702
30 to 34	880
35 to 39	841
40 to 44	964
45 to 49	1,066
50 to 54	1,086
55 to 59	786
60 and above	386
<b>Enterprise Total – Permanent</b>	<b>6,922</b>

The average age was 43.7 years. The average age of females was 42.8 and the average age of males was 44.1.

As of December 31, 2011, Enbridge's senior management, which is defined as director level and above, included 36 females and 179 males. This equates to 83 per cent male and 17 per cent female.

## Temporary employees

Enbridge employed 230 temporary employees at December 31, 2011. The approximate breakdown by gender was 51 per cent male and 49 per cent female. The breakdown by age group was as follows:

Age Group	Employee Count
up to 24	48
25 to 29	53
30 to 34	27
35 to 39	17
40 to 44	11
45 to 49	15
50 to 54	10
55 to 59	15
60 and above	34
<b>Enterprise Total – Temporary</b>	<b>230</b>

## Diversity & Inclusion

Enbridge does not keep employment statistics based on membership in identified diversity groups on an enterprise-wide basis.

In Canada, individual business units comply with jurisdictional requirements for reporting.

Liquids Pipelines (Canada) complies with the regulations of the Employment Equity Act, and as such, is required to report annually on workforce composition in relation to the four equity groups covered by the Act: women; people with disabilities; visible minorities; and Aboriginal people. Each new employee receives a workforce survey questionnaire, asking him or her to voluntarily self-identify if they are a member of one or more of the four groups. This information is provided to the federal government and is also utilized internally to provide information on areas of under-representation both in terms of aggregate representation and representation at various levels of the organization. The information guides Enbridge's strategic diversity and equity initiatives with the goal of developing a workforce that aligns with the availability of the equity groups in the labour force, as well as becoming more representative of the communities in which the company operates.

Enbridge's U.S. operations routinely track the minority composition of their workforce to comply with government reporting. Effective October 1, 2010, the company implemented an Affirmative Action Plan in the U.S. In compliance with the plan, Enbridge tracks the ethnicity of all job applicants and employees based on a self-identification process. Through tracking efforts, the company identifies specific jobs in which it has an under-representation of minority groups. Through analysis of this information, Enbridge has established placement goals and has enhanced recruitment efforts to diversify its applicant pool, with the goal of establishing a workforce that is more representative of the geographic areas in which the company operates.

Enbridge fully supports employment equity legislation requiring that fair and equitable employment opportunities be available to all people. We are committed to creating a workforce that, at all levels, is representative of the diverse population we serves and to providing a working environment that encourages all people to participate on an equitable basis in employment, training and career advancement opportunities consistent with their abilities, qualifications and aspirations.



Enbridge is committed to an inclusive and respectful workplace. Our employment equity and affirmative action programs have the following principal objectives:

- The achievement and maintenance of a workforce in compliance with relevant legislation, taking into account such factors as workforce availability and the evolving social and economic situation of these groups, as well as Enbridge’s operational objectives.
- The identification and removal of systemic barriers in employment systems, policies, procedures and practices that may have an adverse effect on the employment or career progression of any employee.
- The implementation of special measures and programs to correct the effects of employment disadvantages and to promote the workforce participation of designated groups.

As such, management will:

- Hire based on merit and job requirements, ensuring that the recruitment lens captures the available labour force in its entirety.
- Treat employees equitably with respect to access to developmental and career advancement opportunities, training and other conditions of employment consistent with their performance and qualifications.
- Support and be committed to programs and initiatives that foster equal employment opportunity and non-discrimination.

Enbridge Liquids Pipelines has created a dedicated position—Manager, Diversity—that is implementing a three-year Employment Equity and Diversity Plan for all Liquids Pipelines operations in Canada. A Diversity Steering Committee has been formed, and has undertaken a number of activities and initiatives that promote diversity and inclusion across the Liquids Pipelines business unit.

## LA14

*Ratio of basic salary and remuneration of women to men by employee category, by significant locations of operation.*

Enbridge’s remuneration policies are company-wide policies, and there is no significant variation by location. Salary levels are determined using an objective and equitable process that considers the internal value of the role, market rates of pay, as well as employee skill and competency. Enbridge utilizes an objective performance management system that permits top performers to achieve higher-than-average increases in any given year.

### Average salary ratio male to female by job ladder level (%)

Level 1	102.8
Level 2	102.6
Level 3	101.6
Level 4	102.8
Level 5	102.0
Level 6	104.7
Level 7	100.8

### Minimum wage versus Enbridge start rates

Region	Minimum Wage	Enbridge Entry-level Minimum Wage	Enbridge Entry-level Maximum Wage	Ratio of Standard Minimum Wage to Enbridge Entry-level Wage
Ontario	\$10.25			
Toronto		\$17.83	\$26.74	173.95% - 260.88%
Alberta	\$9.40			
Calgary		\$20.52	\$28.97	218.30% - 308.19%
Edmonton		\$14.72	\$20.79	156.60% - 221.17%
Texas	\$7.25			
Houston		\$ 14.12	\$19.93	194.76% - 274.90%

### **Ratio of CEO's base salary to that of average employee**

In 2011, the ratio of then Enbridge President and Chief Executive Officer Patrick Daniel's base salary to that of the average employee salary was 14.1. Mr. Daniel's base salary in 2011 was \$1,279,000. To calculate "average employee salary," we included only salaries of regular, non-union, full-time employees.

Enbridge's executive compensation programs are designed to motivate management to deliver strong corporate performance and invest the company's capital in ways that minimize risk and maximize return, while supporting Enbridge's core business goals.

We benchmark our executive compensation programs against a group of similar companies in Canada and the U.S. to ensure we are rewarding our executives at a competitive level.

Our base salaries offer fixed compensation for performing day-to-day responsibilities, while balancing the individual's role and competency, market conditions and attraction and retention issues.

## ***SOCIAL PERFORMANCE: HUMAN RIGHTS***

### ***POLICY***

The Human Rights section of Enbridge's [CSR Policy](#) states that:

- Enbridge recognizes that governments have the primary responsibility to promote and protect human rights. Enbridge will work with governments and agencies to support and respect human rights within our sphere of influence.
- Enbridge will not tolerate human rights abuses and will not engage or be complicit in any activity that solicits or encourages human rights abuse.
- Enbridge will always strive to build trust, deliver mutual advantage and demonstrate respect for human dignity and rights in all relationships it enters into, including respect for cultures, customs and values of individuals and groups.

In addition, Enbridge's [Statement on Business Conduct](#) states that:

- Enbridge is committed to ensuring its employees are treated fairly, compensated appropriately, and hired and promoted without discrimination by reason of race, nationality, ethnic origin, colour, religion, age, gender, marital status, family status, sexual orientation, political belief or disability.
- Enbridge shall establish and maintain safe working conditions and conduct its operations in an environmentally responsible manner in accordance with applicable environmental laws, regulations and standards. All employees and contractors shall be aware of and comply with Enbridge's applicable health, safety and environmental policies.
- Enbridge shall support the protection and observance of human rights and freedoms within its sphere of influence and has adopted the [Voluntary Principles on Security and Human Rights](#) as set forth by the U.S. Bureau of Democracy, Human Rights and Labor.
- The [Statement on Business Conduct](#) is applicable to the Enbridge Group of Companies, their directors, officers, employees, consultants and contractors in all countries in which Enbridge conducts business

### ***TRAINING AND AWARENESS***

As a condition of employment, all new employees are required to read and provide written acknowledgement of their agreement to follow Enbridge's [Statement on Business Conduct](#), the human rights elements of which are outlined in the Policy section above. Thereafter, all employees must certify their compliance with the Statement on Business Conduct each year. The annual certification process for each employee includes the completion of mandatory Statement on Business Conduct refresher training, which is coordinated and rolled-out each January on an enterprise-wide basis.

Please see Enbridge's response to GRI Performance Indicator HR3 below for details about the company's ongoing mandatory employee training on human rights-related subjects.

## **MONITORING AND FOLLOW-UP**

Enbridge complies with, and conducts business in accordance with, the principles set out in the human rights legislation of the countries in which the company operates. If, after investigating an alleged incident, Enbridge found that a transgression had occurred, it would follow up with an appropriate level of discipline, including termination and possibly referring the matter to law enforcement authorities for potential prosecution.

Enbridge recognizes 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, and in keeping with our commitment to transparency and CSR, in 2002, Enbridge adopted the [Voluntary Principles on Security and Human Rights](#), which deal with responsible corporate action in conflict zones. These principles have been incorporated into the company's [Statement on Business Conduct](#).

In addition, in 2003, Enbridge became a signatory to the United Nations Global Compact and committed to following its principles. The compact is an initiative that brings companies together with UN agencies, governments, labour and civil society to support principles in the areas of human rights, labour and the environment. Enbridge has committed to support and advance the Global Compact's principles and to make them part of the company's strategy, culture and daily operations.

## **HUMAN RIGHTS PERFORMANCE INDICATORS**

### **INVESTMENT AND PROCUREMENT PRACTICES**

#### **HR1**

*Percentage and total number of significant investment agreements and contracts that include clauses incorporating human rights concerns, or have undergone human rights screening.*

#### **HR2**

*Percentage of significant suppliers, contractors and other business partners that have undergone human rights screening, and actions taken.*

Enbridge strictly adheres to Canadian and U.S. human rights laws with regard to its North American operations. Further, Enbridge's activities are governed by its [Statement on Business Conduct](#) and by the [Voluntary Principles on Security and Human Rights](#), which the company has adopted and which were established by the U.S. Bureau of Democracy, Human Rights and Labor. As such, Enbridge does not include human rights clauses or human rights screening in any of its North American investment agreements.

#### **HR3**

*Total hours of employee training on policies and procedures concerning aspects of human rights that are relevant to operations, including the percentage of employees trained.*

Enbridge recognizes and ensures compliance with all human rights laws and regulations.

As a condition of employment, all new employees are required to read and provide written acknowledgement of their agreement to follow Enbridge's [Statement on Business Conduct](#), the human rights elements of which are outlined in the Policy section above. Thereafter, all employees must certify their compliance with the Statement on Business Conduct each year. The annual certification process for each employee includes the completion of mandatory Statement on Business Conduct refresher training, which is coordinated and rolled-out each January on an enterprise-wide basis.

Policy and practice are reinforced throughout the company via ongoing mandatory training.

Each business unit has different training packages that address such subjects as maintaining a respectful workplace, anti-harassment and violence in the workplace. All new hires take such training either immediately upon

being hired or within three months of being hired. Employees are required to undertake refresher courses every two to three years. If requested, training can also be provided to groups or departments between refresher training cycles. Enbridge continually revisits the content and delivery methodology of these courses to ensure that the information is up-to-date and accessible.

## **NON-DISCRIMINATION**

### **HR4**

*Total number of incidents of discrimination and corrective actions taken.*

Enbridge management is not aware of any incidents of discrimination taking place in the company in 2011.

## **FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING**

### **HR5**

*Operations and significant suppliers identified in which the right to exercise freedom of association and collective bargaining may be violated or at significant risk, and actions taken to support these rights.*

Enbridge is not involved in any operations in which the right to exercise freedom of association and collective bargaining may be at significant risk.

## **CHILD LABOUR**

### **HR6**

*Operations and significant suppliers identified as having significant risk for incidents of child labour and measures taken to contribute to the effective abolition of child labour.*

Enbridge follows the labour laws of the countries in which it operates and does not hire children.

Further, Enbridge's activities are governed by its [Statement on Business Conduct](#) and by the [Voluntary Principles on Security and Human Rights](#), which the company has adopted and which were set forth by the U.S. Bureau of Democracy, Human Rights and Labor.

## **FORCED AND COMPULSORY LABOUR**

### **HR7**

*Operations and significant suppliers identified as having significant risk for incidents of forced or compulsory labour and measures to contribute to the elimination of forced or compulsory labour.*

Enbridge follows the labour laws of the countries in which it operates and does not practice forced or compulsory labour.

Further, all of Enbridge's activities are governed by its [Statement on Business Conduct](#) and by the [Voluntary Principles on Security and Human Rights](#), which the company has adopted and which were set forth by the U.S. Bureau of Democracy, Human Rights and Labor.

## **SECURITY PRACTICES**

### **HR8**

*Percentage of security personnel trained in the organization's policies or procedures concerning aspects of human rights that are relevant to operations.*

Enbridge employs two full-time and two part-time security personnel. All have a full understanding of the company's [Statement on Business Conduct](#).

Further, all of Enbridge's activities are governed by its [Statement on Business Conduct](#) and by the [Voluntary Principles on Security and Human Rights](#), which the company has adopted and which were set forth by the U.S. Bureau of Democracy, Human Rights and Labor.

## **INDIGENOUS RIGHTS**

### **HR9**

*Total number of incidents of violations involving rights of indigenous people and actions taken.*

Enbridge is sensitive to the rights and culture of indigenous peoples and has adopted an [Aboriginal and Native American Policy](#) that outlines key principles for Aboriginal relations and promotes the understanding of both Aboriginal and Native American peoples and issues that are important to them.

Enbridge is not aware of any incidents of violations involving the rights of indigenous people in 2011.

## **SOCIAL PERFORMANCE: SOCIETY**

### **POLICY**

Enbridge's [CSR Policy](#) and its [Aboriginal and Native American Policy](#) govern the company's stakeholder relations.

Enbridge also has a set of Community Partnerships & [Investment](#) program criteria and guidelines that guide its community investment activities. They are as follows:

#### **Community Partnerships & Investments – Program Criteria and Guidelines**

The company considers investment and sponsorship opportunities in communities where Enbridge operates that are:

- within a 20-kilometre (10-mile) radius of its pipeline right-of-way; or, in the case of Enbridge Gas Distribution (EGD), within EGD's franchise areas in Ontario and New Brunswick;
- important to the community as determined by best practice comparison, community-based research, and information gathered through on-going stakeholder relationships;
- beneficial to the greatest possible number of people;
- significant to the long-term interests of the community; and
- supportive of one of the focus areas (see below) that Enbridge views as integral for a sustainable community.

#### **Focus Areas**

Directed by the company's social vision statement, Enbridge concentrates its investments in focus areas that contribute to enriching our communities.

Through 2011, Enbridge grouped its community investment activities by six focus areas, as follows:

**Arts & Culture:** Enbridge contributes to making communities culturally vibrant places where its employees want to live and work. Enbridge does that by investing in visual and performing arts, as well as programs and organizations that bring cultural events to communities.

**Community Leadership:** Enbridge's community investment focus on community leadership reflects the company's commitment to innovative initiatives that improve the quality of life for members of Enbridge communities. Enbridge strives to promote leadership in its communities by supporting the United Way, health care institutions and health programs; and social services organizations. Enbridge encourages employee volunteerism by offering Volunteers in Partnership, a program to support organizations for which Enbridge's employees volunteer.

**Lifelong Learning:** Enbridge recognizes that education is one of the most valuable gifts one can give. Enbridge is committed to educational opportunities for students and adults, and Enbridge focuses its investments on scholarships for higher education and programs that improve literacy and skills in math and science.

**Natural Legacy:** Because Enbridge recognizes that the way we treat the planet is our natural legacy, Enbridge invests in programs that promote environmental stewardship, conservation, habitat remediation and habitat protection. Additionally, Enbridge invests in environmental education to help equip the next generation to take on environmental challenges.

**Safe Community:** The safety of the communities in which Enbridge operates and the people who live and work along Enbridge's system remains the company's highest priority. Therefore, Enbridge appreciates the important contributions of police, EMS, firefighters and others who help keep our communities safe. Through its Safe Community program, Enbridge provides grants to local first responders in areas of Enbridge operations to help with

obtaining equipment, training, public awareness and volunteer recognition. Additionally, Enbridge supports safety initiatives that are important in the communities where the company operates.

**School Plus:** Enbridge provides Canadian Aboriginal youth in grades K to 12 with enrichment programs to engage them in the education process, encouraging them to remain in school. This will enable them to pursue advanced education or training, and to secure better jobs in the future, which will contribute to positive and sustainable change in their communities.

## **TRAINING AND AWARENESS**

Several employees within Enbridge's Public, Government and Aboriginal Affairs department have taken the Certificate in CSR, offered by the University of St. Michael's College, Continuing Education in the University of Toronto, in partnership with the Conference Board of Canada.

Enbridge includes a CSR section in each of its regular new employee onboarding sessions and annual employee meetings.

## **MONITORING AND FOLLOW-UP**

In 2005, Enbridge signed on as one of 10 founding members of the London Benchmarking Group Canada (LBG Canada). LBG Canada is a member-driven association working toward a higher standard in the management, valuation and performance measurement of corporate community involvement. Using the LBG model, Enbridge is able to evaluate community contributions consistently and maximize the impact of its corporate community involvement programs. LBG is a structured process that includes goal setting, clarity on the investment required to achieve a desired outcome and performance measurement of the result.

For more information on the benchmarking Enbridge is doing through its association with LBG Canada and recent assessment results, please see the report below in "Society Performance Indicators – SO1 – Community Partnerships and Investments – Benchmarking and Assessment."

## **SOCIETY PERFORMANCE INDICATORS**

### **LOCAL COMMUNITIES**

#### **SO1**

*Percentage of operations with implemented local community engagement, impact assessments, and development programs.*

#### **SO9**

*Operations with significant potential or actual negative impacts on local communities.*

#### **SO10**

*Prevention and mitigation measures implemented in operations with significant potential or actual negative impacts on local communities.*

Enbridge manages the impacts of its operations on communities through three areas of enterprise-wide activity that have complementary programs and practices: community and landowner relations; Aboriginal and Native American relations; and community partnerships and investments. Following are detailed reports on all three of these areas.

## **COMMUNITY AND LANDOWNER RELATIONS**

### **Assessing Impacts**

Many of Enbridge's projects require the company, as the proponent, to develop and submit a comprehensive Environmental and Socio-Economic Assessment (ESA) or similar study or document. An ESA is prepared to provide the current environmental and socio-economic baseline conditions along a proposed pipeline route and in the vicinity

of proposed facilities. An ESA also typically evaluates project alternatives, and determines and compares potential effects a proposed project will have on the natural and human environment.

The socio-economic component of an ESA evaluates potential adverse and positive impacts to communities by assessing aspects such as human occupancy and resource use, heritage resources, traditional land and resource use, social and cultural well-being, human health and aesthetics, infrastructure and services, employment, and the economy.

An integral component in determining socio-economic effects of a project includes collecting and evaluating information obtained during consultations with numerous stakeholders, including: environmental interest groups; landowners and occupants; municipal, provincial and federal agencies; and Aboriginal groups. Once potential effects have been identified and analyzed, residual effects are predicted and their significance is assessed. Measures are then proposed to avoid or mitigate the identified effects.

### **Major Projects – Public Involvement Programs**

We are currently undertaking dozens of large Enbridge-led construction projects across North America. Whether a particular Enbridge project pertains to building new pipelines, crude oil tanks, power transmission lines, or alternative energy projects, the company uses proactive public communication and consultation programs to support two-way communication. Enbridge's philosophy is to be as transparent as possible with our stakeholders. The company accomplishes this by undertaking timely, honest and open communication with stakeholders and communities located near planned projects that may have an impact on them.

When Enbridge proposes a new project, as a first step we implement a Public Involvement Program (PIP) that is specifically designed to take the unique aspects of that project into account. Factors such as environmental sensitivities, private or public lands, and nearby neighbours are carefully considered. The purpose of the PIP is to build public awareness and understanding, gather stakeholder input, answer questions, learn about community interests and perspectives and whenever possible implement changes to project design or scope to minimize adverse impacts.

As part of this program, landowners, Aboriginal communities, community residents, stakeholder organizations, public officials, chambers of commerce and the media in communities close to Enbridge's activities receive regular project updates via newsletters, posters, regulatory compliance mailings, telephone calls, a website, community open house meetings and in-person visits.

While many stakeholders are satisfied to receive the company's project information at the start of the process and then simply be informed on a timely basis about progress and new developments, other individuals or groups have interests or concerns that require personal consultations. These consultations can vary widely—from negotiations with First Nations, private landowners and recreational users of public land; to engagement with multi-stakeholder advisory groups; to discussions about economic opportunities with local contractors.

### **Operations – Public Awareness Programs**

Enbridge knows that our neighbours during construction will also be our neighbours for the many years that the project will be in operation, and we look for and welcome the opportunity to invest in long-term collaborative consultation relationships towards building sustainable communities.

Through our Public Awareness Programs, we have a scheduled communication process through which (a) landowners, communities and all other relevant stakeholders are kept informed about a pipeline and related initiatives and issues and (b) we seek comments from the affected public and address questions and concerns. Our Public Awareness Programs are focused on raising awareness of pipelines in communities, the importance of calling a local one-call centre or 811 before any digging project, and how to recognize the warning signs of a potential pipeline emergency and what to do—or what not to do—in response.

Our programs take many forms. For example:

- Enbridge representatives meet regularly with local emergency responders, excavators, schools, public officials and other community stakeholders along the company's rights-of-way to share information about the pipelines, damage prevention, leak detection, and Enbridge's emergency contact information.
- In addition, Enbridge's Safe Community program provides contributions to local emergency responders to purchase equipment or to fund training activities that help keep communities safe. We also make targeted donations in communities near our rights-of-way to support environmental, educational, health and safety, cultural and other community initiatives. Enbridge representatives often hand-deliver the cheques and use those face-to-face meetings as an opportunity to talk about the company's Public Awareness Program and encourage stakeholders to contact their Enbridge representative at any time with any questions or concerns.

- Further, Enbridge personnel conduct regular emergency response drills and training exercises and invite local emergency responders to participate as they would in the event of an actual emergency.
- The meetings, the community investment program and the emergency response drills all provide opportunities to foster relationships, while also increasing the community's understanding of Enbridge's pipelines.

### **Community Relations Advisors**

In early 2010, Enbridge added a specific Community Relations Advisor function to Liquids Pipelines' operations to focus on building healthy, open and long-lasting relationships with communities and residents near the company's operating assets, as well as the projects it is planning or constructing.

Enbridge's Community Relations Advisors are helping to develop and implement community engagement plans that meet the needs of local stakeholders. They are also identifying and proactively addressing and resolving emerging concerns in key communities and regions and ensuring that the company's corporate social responsibility initiatives are supported within local communities.

### **Leak on July 26, 2010, on Enbridge's Line 6B near Marshall, Michigan – Responding to Community Needs**

Taking care of the communities is a vital part of Enbridge's ongoing response to the leak on its Line 6B in Michigan.

Enbridge opened community centres in Marshall and Battle Creek within days following the incident to provide a way for the public to ask questions about the spill or to submit claims for damages. In general, the claims issues ranged from property impacts to expenses incurred as a direct result of the leak to medical issues.

Enbridge also initiated a home purchase program for people living within 200 feet (61 metres) of Talmadge Creek and the Kalamazoo River. The program was designed to help maintain property values to help minimize any immediate adverse reactions to the housing market because of the spill. By the time the program ended in July 2011, the company had purchased over 150 homes.

A toll-free information hotline was established immediately following the incident. Issues addressed in the calls ranged from questions about air and water quality to reporting locations of oiled wildlife. In conjunction with U.S. Fish and Wildlife, a Wildlife Response Center was established in Marshall and began taking in animals within a few days following the spill. Several types of oiled wildlife, including ducks, geese, beavers and turtles were treated at the centre, and most were released back into their natural habitat.

By spring 2012, cleanup, under the direction of the U.S. Environmental Protection Agency, had progressed to the point that the Kalamazoo River and Morrow Lake had been reopened for recreational use.

Based on input from local residents, community leaders and recreation groups, much of our community efforts have focused on increasing access to the Kalamazoo River.

Enbridge has created or improved five river access sites to encourage recreational opportunities along the Kalamazoo River. Three new locations were dedicated in the fall of 2011. They are called Saylor's Landing, Angler's Bend and Paddler's Grove. In June 2012, Calhoun County reopened Historic Bridge Park to the community where Enbridge added parking, enhanced the playground and picnic area, and added a handicap-accessible boat lift. Enbridge is also establishing a portage route around Ceresco Dam to provide a safe and legal way for people to navigate around the dam.

### **Measuring Effectiveness**

There are many long-term benefits to fostering good relations with stakeholders and building trust and goodwill with the landowners and communities along Enbridge's rights-of-way.

For one, if landowners and communities already know Enbridge and believe they have been treated fairly by the company in the past and that the company cares about its communities and the safety of everything it does, then they are more likely to support Enbridge and any of its future expansion initiatives and will be more open to discuss and negotiate their needs with Enbridge.

Moreover, Enbridge employees and their families live in these same communities, and they share the same goals as their neighbours, which is to build strong, thriving, safe and sustainable communities.

Pipeline safety also enters into the equation. When stakeholders are well informed about Enbridge and its operations and trust the company and know that the company wants to hear from them, then they are more likely to be quicker to call the company if they smell, hear or see something out of the ordinary with regards to the company's operations.

The actions or reactions of Enbridge's stakeholders are the primary indicators of the company's community relations performance and that of the Public Awareness Program. Key performance indicators for Enbridge include:

- positive or negative feedback gathered in meetings with stakeholders;



- concern/support from elected officials regarding matters important to the projects;
- letters of support;
- positive, negative or balanced media coverage;
- level of opposition to projects;
- timely regulatory approvals of the projects; and
- conflict mitigation through effective communication and a meaningful consultation process with stakeholders.

By fostering positive relations and addressing stakeholders' concerns proactively, Enbridge has been able to move forward on its growth projects with the support of landowners, communities, and Aboriginal and Native American neighbours.

Enbridge conducts formal and informal surveys to measure the effectiveness of its programs. For example:

- In the U.S., Enbridge is required by federal regulation to conduct an annual implementation review of the Public Awareness Program, and to evaluate program effectiveness once every four years. The effectiveness evaluation is conducted through a collaborative survey program, incorporating feedback from emergency responders, public officials, excavators and people who live and work near our pipelines. The survey measures their understanding of pipeline safety and retention of information they would have received as part of a company's pipeline public awareness baseline direct mail program. This information is paired with statistics and metrics from the annual implementation review to help determine if the program is effective and if any changes to the program are indicated.
- Enbridge also uses informal measures of media interest (news and blog clips) to gauge stakeholder interest in certain topics such as proposed pipeline construction in their area, as well as to develop educational and open-house materials that are responsive to stakeholder questions that are raised in media stories.
- Strong relationships with emergency responders in Enbridge's areas of operation throughout North America are a top priority. As a result of feedback received from a 2011 survey of emergency response agencies that have received grants through our Safe Community Program, we have begun development of an interactive training program for emergency responders to cover all elements of our operations. The training, which will be deployed online, will launch in the U.S. in late 2012; we are concurrently working on a plan to deploy the program in Canada in 2013. The training program will include elements of "Pipeline Emergencies," a program developed through a partnership between the National Association of State Fire Marshals (NASFM) and the U.S. Pipeline and Hazardous Materials Safety Administration (PHMSA) and widely accepted as world class in training for pipeline emergencies.

### **Continual Improvement**

Enbridge aims for continual improvement of its community relations initiatives to reinforce the company's long-standing commitment to being a good neighbour and maintain positive relationships with landowners, tenants and communities along the company's rights-of-way.

For example, the relationships that Enbridge Gas Distribution (EGD) builds with communities through its community events, sponsorships of community activities or meetings with key stakeholders have helped establish EGD as a good corporate citizen. Some recent examples:

- Through EGD's sponsorship of Project Zero, which is a public education program aimed at reducing residential fire and carbon monoxide (CO) deaths to zero, the Ontario Fire Marshal's office was able to distribute over 2,700 combination smoke and CO alarms to 11 municipalities across the province in 2011.
- Through its commitment to the Winter Warmth program, EGD assisted over 1,300 low-income families and individuals with payment of their natural gas bill during the winter of 2010/2011.
- Through EGD's title sponsorship for the Enbridge CN Tower Stair Climb for United Way, United Way Toronto raised over \$2.2 million in 2011.

## **ABORIGINAL & NATIVE AMERICAN RELATIONS**

Aboriginal and Native American communities comprise some of Enbridge's most important neighbours.

The terms "Aboriginal" and "Native American" are commonly used to refer to the original inhabitants of Canada and the U.S.—those who lived on the continent before other groups arrived from other parts of the world. In Canada,

the term “Aboriginal” includes First Nations, Métis and Inuit peoples.

Enbridge recognizes the history, uniqueness and diversity of Aboriginal and Native American peoples. Positive relationships with Aboriginal and Native American peoples, based on mutual respect and trust will help them and the company to realize our respective aspirations and will help Enbridge to reach its strategic business objectives.

Enbridge’s relations with Aboriginal and Native American people are extensive. In Canada, for example, Enbridge rights-of-ways are located in proximity to approximately 60 First Nation communities. As Enbridge’s network expands, the breadth and depth of these relationships will grow.

Enbridge is committed to respectful relations, early engagement, meaningful dialogue and forthright and sincere consultation with its Aboriginal neighbours in Canada and its Native American neighbours in the U.S.

Enbridge shares with them a high regard for the environment and for tradition and, as such, the company respects their land, heritage sites, and traditional knowledge and land use.

### **Aboriginal and Native American Policy**

Enbridge first formalized the principles that guide its relations with Aboriginal and Native American people in its Indigenous Peoples Policy, which the company adopted in 2001.

Since then, a great number of legal decisions in Canada have interpreted the nature of Aboriginal and treaty rights under the Constitution Act. These decisions have interpreted government’s duty to consult and, where necessary, accommodate Aboriginal people when their Aboriginal and/or treaty rights are impacted by government decision making, including regulatory approvals.

Also, starting in 2007, Enbridge embarked on an unprecedented number of pipeline expansion projects in both Canada and the U.S. All of these projects required regulatory approval from government agencies.

Consequently, in 2008, Enbridge reviewed its existing Indigenous Peoples Policy and, in early 2009, approved and adopted a revised Aboriginal & Native American Policy

The goal of the policy is to help achieve mutually beneficial relations with Aboriginal and Native American communities in proximity to or, in some significant way, affected by Enbridge’s operations. The policy and supporting guidelines are designed to ensure a consistent, thorough approach to consultation and engagement with Aboriginal and Native American people.

In the policy, Enbridge affirms that the company:

- recognizes the legal and constitutional rights possessed by Aboriginal people in Canada and by Native Americans in the U.S.;
- respects the traditional ways, Aboriginal and Native American heritage sites, and the relationship that Aboriginal and Native American peoples have with the land and the environment;
- engages in forthright and sincere consultation with Aboriginal and Native American peoples about Enbridge’s projects and operations that have an impact upon their legally and constitutionally protected rights;
- commits to working with Aboriginal and Native American peoples to achieve sustainable benefits for them resulting from Enbridge’s projects and operations, including opportunities in training and education, employment, procurement, business development and community investment; and
- fosters understanding and respect for local Aboriginal and Native American peoples among Enbridge’s employees and contractors.

Read the full [Aboriginal & Native American Policy](#).

### **Enbridge’s Approach**

Enbridge’s Aboriginal & Native American Policy provides direction to Enbridge employees in their interaction and engagement with Aboriginal and Native American peoples located near the company’s projects and operations.

Enbridge’s interaction and engagement is regular and consistent and spans the life of the project—from the planning and regulatory approval phases, through construction and then ongoing after a project becomes operational.

Enbridge designs its engagement activities to meet all legal and government (federal, provincial and state) regulatory requirements.

Open and ongoing two-way communication is the vital link that allows the company to:

- identify the interests and concerns of the people who may be affected by Enbridge operations; and
- explain Enbridge’s plans, expectations and constraints.

Enbridge's wide range of engagement activities include:

- regular communication through correspondence and project update newsletters;
- presentations at tribal government meetings;
- community open houses;
- job fairs;
- emergency preparedness exercises; and
- community investments and sponsorships.

Topics of communication and discussion typically include proposed pipeline routes, facility location, water course crossings, summaries of environmental studies, outcomes from the identification of traditional-use sites and opportunities to achieve sustainable benefits, including employment and procurement.

## ***ABORIGINAL & NATIVE AMERICAN RELATIONS – RECENT INITIATIVES AND SIGNIFICANT EVENTS***

The following is an overview of recent Aboriginal and Native American Relations developments in Canada and the U.S.

### ***CANADA – CORPORATE***

Enbridge engages in broad-based national initiatives that can impact and benefit Aboriginal people, communities and organizations throughout Canada.

#### **Major Aboriginal Community Investment**

##### **School Plus**

The Enbridge School Plus Program, which the company developed in partnership with the Assembly of First Nations (AFN), supports enriched programming and extracurricular activities in First Nations schools near major Enbridge pipeline routes in Canada. The overall goal of the program is to encourage First Nations youth to stay in school by assisting schools in offering sports activities, music or arts programs, field trips and school clubs.

The initial three-year pilot program, launched in 2009, provided funding to 42 eligible First Nations schools located in proximity to Enbridge's mainline right-of-way between central Alberta and southwest Manitoba, and in proximity to the company's first wind farm near Kincardine, Ontario. In the first three years of the program, grants totaling more than \$2 million have been made under the Enbridge School Plus banner.

In 2011, Enbridge made grants to 33 eligible First Nations schools, and over 3,900 First Nations youth benefited from the program. One of the 33 programs was the Montana First Nation's Meskanahk Ka-Nipa-Wit School's Youth Education and Career Pathways SAIT Summer Camp program, which offers junior high school students the opportunity to explore and become more aware of post-secondary education and career options at the SAIT Polytechnic campus in Calgary. Participating students earned certificates in two of four programs offered at SAIT: heavy duty mechanics, professional cooking, video production, and web design. In order to be eligible to attend the summer camp, students at Meskanahk Ka-Nipa-Wit School had to have an attendance rate of over 85 per cent during the school year.

Due to the success of the pilot School Plus Program, Enbridge is expanding the School Plus Program in 2012 to include communities along the Enbridge mainline right-of-way in Ontario and Quebec. The expansion will bring to 87 the number of on-reserve schools eligible to apply for grants under the program.

Throughout 2011, Enbridge also continued to support School Plus initiatives that strengthen Métis and urban Aboriginal communities. These partnerships were initiated in early 2010 as an adjunct to the original on-reserve program. In 2011, the expanded program supported a partnership with the MacKenzie Art Gallery in Regina, Saskatchewan, to support its Urban Outreach program, which provides enriched arts instruction to students at inner-city Regina schools with high Aboriginal enrollment. Enbridge has also partnered with the University of Winnipeg to fund a program that provides inner-city students with the chance to engage in enriched science-oriented educational activities through the Enbridge Eco-Kids on Campus program. The expanded School Plus Program also includes

partnerships with Métis Child and Family Services of Edmonton and the Stardale Women's Group of Calgary.

### **The Banff Centre**

In 2011, Enbridge continued its commitment to provide \$1 million over seven years to The Banff Centre in Banff, Alberta, to support Aboriginal leadership and management programming, including a program dedicated to developing the leadership skills of Indigenous women leaders. In addition to supporting the Centre's Aboriginal leadership programming as a whole, Enbridge's partnership with The Banff Centre guarantees 12 annual scholarships for First Nations members whose communities are located in proximity to Enbridge's proposed Northern Gateway Pipeline right-of-way.

### **Canadian Aboriginal Writing and Arts Challenge**

Enbridge is the presenting sponsor for the Historica-Dominion Institute's annual Canadian Aboriginal Writing and Arts Challenge, a national competition inviting young Aboriginal Canadians to showcase their creative writing talent, or their skill in the visual arts. In June 2011, the Canadian Aboriginal Writing and Arts Challenge awarded scholarship prizes to the best submissions in each of two age categories in both the writing and arts components.

### **CANADA – PROJECTS AND OPERATIONS**

Enbridge continues to be an industry leader in building strong relationships with First Nations and Métis communities. Building on the successes of 2010, and through construction of a number of pipeline expansion/extension projects (Christina Lake, Woodland, Wood Buffalo, Athabasca, Waupisoo, and Bakken), Aboriginal communities and member-owned businesses realized an economic benefit of approximately \$24.1 million in 2011.

In the first quarter of 2012, project construction had yielded approximately \$14.9 million in additional direct and indirect spend to Aboriginal communities.

### **Bakken Hearing**

In 2011, Enbridge participated in NEB hearings to consider and approve the proposed Bakken pipeline, a 124-kilometre extension of an existing pipeline running from Berthold, North Dakota, to Steelman, Saskatchewan. The proposed extension would transport crude oil between a new pump station near the Steelman terminal and an existing terminal at Cromer, Manitoba. Enbridge developed and executed a comprehensive Aboriginal consultation plan to engage with six First Nations and one Métis organization that are located within 30 kilometres of the proposed pipeline right-of-way.

As part of its new process, the NEB had notified some 27 Aboriginal communities and groups of the hearing, many of which were located far from the proposed right-of-way, and provided capacity funding to five Aboriginal intervenors. Enbridge responded to each intervenor, asking for an opportunity to meet to provide information concerning the proposed project and to ascertain their concerns. Enbridge met with four of the intervenors, as the fifth did not indicate a desire to meet. At the meetings, Enbridge responded to community concerns, which included questions as to how the proposed project would affect the exercise of their aboriginal and treaty rights. Enbridge advised the four communities that through our due diligence, we had confirmed that project lands were not subject to any rights of access for the purpose of exercising aboriginal or treaty rights. In addition, in accordance with our normal practice, we engaged the communities concerning their ability to participate in the project through the provision of services or labour. Ultimately, as a result of our engagement, two of the Aboriginal intervenors removed their objections to the proposed project.

At the conclusion of the hearings, the NEB approved the project, and found that Enbridge's Aboriginal consultation was fulsome and appropriate, and had provided the relevant Aboriginal communities with all project information necessary for them to identify their concerns.

### **Norman Wells Pipeline Release**

Regrettably, on May 9, 2011, Enbridge experienced a release of oil on its Norman Wells Pipeline approximately 50 metres south of Wrigley and 150 metres south of Willowlake River in the Northwest Territories. Within four hours of confirming the release, Enbridge operations personnel notified neighbouring Aboriginal communities and organizations. The Aboriginal communities and organizations of Pehdzeh Ki First Nation, which had first reported the release to Enbridge, as well as Liidlii Kue First Nation, Dehcho First Nations, Fort Simpson Métis Nation Local #52 and the residents of the Willowlake River Settlement played an integral role in the consultation process, which greatly supported the remediation of the release site. The remediation of the release site was completed on April 2, 2012.

Enbridge's long-standing relationships with Aboriginal communities and organizations in the Northwest Territories provided the basis for an open and transparent consultation process related to the release site, where all parties involved had the opportunity to raise concerns and provide input.

The release-site remediation provided a significant economic opportunity to Aboriginal businesses in the region. Aboriginal business arms of the communities of the Pehdzeh Ki and Liidlii Kue First Nations provided \$6,300,000 in services and labour to the remediation of the release site.

## Operations

Housing is one of the most significant issues facing Aboriginal communities. Enbridge is pleased to continue our long-standing partnership with Habitat for Humanity. In 2010, Enbridge partnered with Habitat for Humanity and the Technical Services Advisory Group (TSAG) of Treaty 6 in Alberta in support of urban Aboriginal housing. In 2011, we topped up our original \$100,000 donation made in 2010 with another \$10,000 to help TSAG raise enough funds to support another home for a First Nation family.

Enbridge also partnered with Habitat for Humanity and Métis Capital Housing Corporation by providing \$45,000 towards the renovation and refurbishment of three housing units in the Mill Woods and Sherbrooke areas of Edmonton. As a result of this partnership, three local Métis families will become new homeowners.

Enbridge also made a contribution to the Heart Lake First Nation near Lac La Biche, Alberta, that helped them install a fully functioning kitchen in their new community building. This beautiful facility will serve members of the Heart Lake community for many years to come.

Enbridge has a three-year partnership with Mother Earth's Children Charter School (MECCS) to support the school's hot-lunch program and the purchase of a permanent home for the school. We have made a total commitment of \$330,000 to the school (\$110,000 in each of the years 2011, 2012 and 2013). The only First Nation charter school in Alberta, MECCS offers a unique educational experience for its students, engaging them with their cultural roots and connecting them to Mother Nature through lessons based on Aboriginal teachings. Through our efforts and support, we are pleased to report that MECCS has been able to secure a permanent home for the school through the purchase of the St. John's School at Genesee, Alberta.

In 2011, Enbridge also made commitments in support of Aboriginal language and literacy initiatives. Enbridge has made a three-year commitment to the Canadian Indigenous Languages and Literacy Development Institute (CILLDI) at the University of Alberta. Since 2007, Enbridge has been a supporter of CILLDI through a variety of programs such as Elder in Residence, Young Women's Circle of Leadership in Partnership with Women Building Futures, and many scholarship opportunities. In 2011, Enbridge supported CILLDI's objectives in the revitalization of Canada's Aboriginal languages through the Enbridge Indigenous Language Leadership Awards. Through our support, Enbridge hopes to help make it easier for Aboriginal educators to attend the institute. Enbridge is offering up to eight awards of \$2,500 each to support teachers from the Treaty 6, 7, and 8 areas in Alberta to take summer training at CILLDI to support the preservation of Aboriginal languages.

Enbridge also supports the Partners Active in Resource Sharing (PAIRS) program at Alexander Mackenzie Secondary School, which is attended by many students from the Aamjiwnaang First Nation, in Sarnia, Ontario. PAIRS is an initiative of the Lambton Kent District School Board, which connects high schools with local industry in order to enrich students' educational experiences. Enbridge has supported the program since 2010, which was the first year of a three-year commitment to the school. Our support has included office equipment, a process-control module to be assembled by the students, and a yearly financial contribution.

In 2011, Enbridge also supported the Alberta Business Awards of Distinction, the Regional Aboriginal Achievement Awards in Fort McMurray, the Aboriginal Role Models of Alberta and the Belcourt Brosseau Métis Awards.

Additional community investments made by Operations in 2011 included:

- S.I.R.E.N.S., the Charity – \$500 for one Grade 9 scholarship and two Grade 12 scholarships
- Saskatchewan Indian Institute of Technologies – \$3,000 scholarship
- Dakota Iapi Teunhindapi Consortium – \$5,000 for language preservation

In our continuing desire to minimize our environmental footprint, Enbridge has supported a number of projects that will help further our objective of limiting or neutralizing potential environmental impacts.

The Walpole Island Land Trust, the first Aboriginal land trust to receive charitable status in Canada, was formed in 2008 to conserve and maintain the unique natural resources of the Walpole Island First Nation/Bkejwanong Territory. The area contains five different ecosystems and is home to one of the most pristine tallgrass prairies left in Canada, as well as many rare and endangered species. On May 20, 2011, Enbridge provided \$20,000 to the Walpole Island Land Trust. The grant will help the Trust preserve and protect the natural habitat of a 171-acre wetland marsh on St. Anne Island in Ontario, just south of Sarnia. The funding from Enbridge will help protect rare and endangered species, to ensure they will be around for future generations to explore and discover.

Enbridge also supported a traditional and medicinal plant study with the Aamjiwnaang First Nation, near Sarnia, Ontario. This First Nation's Environment and Health Committee is completing a study of approximately 200 acres of forested land on the reserve to identify and catalogue the numerous species of local medicinal plants and outline their

intrinsic healing properties. The project will include community nature walks led by local members knowledgeable in traditional healing to teach community members about native species and how these plants and trees can be used as traditional medicines.

In 2011, Enbridge awarded more than \$81,000 to First Nation and Métis communities in proximity to our rights-of-way under our signature Safe Community Program. The funds will assist the following communities to enhance the capacity of local first responder agencies and increase safety in their communities:

- Aamjiwnaang First Nation (Ontario)
- Walpole Island First Nation (Ontario)
- Kikino Métis Settlement (Alberta)
- Buffalo Lake Métis Settlement (Alberta)
- Heart Lake First Nation (Alberta)
- Whitefish Lake First Nation #128 (Alberta)
- Canupawapka Dakota First Nation (Manitoba)
- Sioux Valley Dakota Nation (Manitoba)

Approved programs included requests for emergency communication equipment; training courses in hazardous materials handling, first aid and CPR; emergency preparedness planning; and search and rescue equipment.

By early 2012, Enbridge had received applications from seven Aboriginal communities for funding under this program, indicating a growing interest in participation.

### **Projects**

Enbridge was pleased to support a number of other educational institutes and life-long learning initiatives to Aboriginal communities in connection with our new pipeline projects, especially in northern Alberta. Enbridge provided a gift of \$100,000 in support of the completion of Keyano College's Fort Chipewyan Campus in the Regional Municipality of Wood Buffalo, Alberta, demonstrating our commitment towards lifelong learning opportunities. With the completion of the new campus, students in this northern and remote community will have greater access to educational opportunities without having to leave their community.

During the first quarter of 2012, Enbridge provided \$955,000 to support community initiative priorities and education in communities in proximity to pipeline projects under development. Enbridge understands that the communities themselves are in the best position to identify their needs, and as a result, we have agreed to allow the communities to allocate the funding for community purposes. The recipient communities will report back to Enbridge concerning the specific allocations.

Included in the above are the following initiatives:

- Mikisew Cree First Nation – 10-year commitment to education; \$6,000 for 2011 contribution year
- Chipewyan Prairie Dene – 10-year commitment to education; \$6,000 for 2011 contribution year
- Athabasca Chipewyan First Nation – 10-year commitment to education; \$6,000 for 2011 contribution year
- Ocean Man First Nation – \$3,000 scholarship

Enbridge supported the Dakota languages programs in Manitoba through a \$5,000 contribution to the Dakota lapi Teunhindapi Consortium and a \$20,000 contribution to Brandon University's Dakota Language Program. Enbridge also supported the 2011 First Nations' Language Keepers Conference in December 2011. In Alberta, Enbridge has made a three-year commitment of \$60,000 to the Saddle Lake Cree Nation's Family Life and Adult Literacy Initiative.

### ***CANADA – ENBRIDGE NORTHERN GATEWAY PROJECT***

In May 2010, Enbridge filed its application for the construction and operation of the Enbridge Northern Gateway Pipelines Project (the Project) with the National Energy Board (NEB). The Project involves a new twin pipeline system between Edmonton, Alberta, and a new marine terminal in Kitimat, British Columbia, to export petroleum and import condensate. Northern Gateway Pipelines Limited Partnership (Northern Gateway) continued to implement its Aboriginal Engagement and Consultation Program (Aboriginal Engagement Program) with Aboriginal groups in the provinces of British Columbia and Alberta.

Highlights of Northern Gateway's Aboriginal Engagement Program during 2011 and early 2012 were as follows:

**Consultation and Engagement:**

Northern Gateway's Aboriginal Engagement Program includes engagement not only with those Aboriginal groups located within the proposed right-of-way, but also with those Aboriginal groups located outside the right-of-way corridor who have expressed an interest in the Project.

In November 2011, Northern Gateway held a well-attended Aboriginal Business Summit (the Summit) at the Edmonton Marriott at River Cree Resort on the Enoch Cree Nation's Stony Plain Reserve. The twofold purpose of this invitation-only event was to:

- share information with delegates about the Project's progress to date and the many economic opportunities associated with the construction and operation of the pipelines; and
- provide an opportunity for Aboriginal and local leaders and businesses to meet leading competitors in pipeline construction and related services, and to explore ways to become involved in collaborative business arrangements, including partnerships, joint ventures, and employment and training opportunities, both near-term and in the future.

The Summit was a great success. It was attended by approximately 400 people and 40 businesses, including several local and Aboriginal businesses situated in proximity to the Project's proposed pipeline route. In total, 38 Aboriginal communities were represented by more than 150 Aboriginal delegates, including 18 First Nations Chiefs, which was a significant increase over the level of Aboriginal participation at the 2010 Summit in Vancouver. There were also over 170 delegates from the pipeline construction industry, including 24 delegates from organized labour, as well as eight government delegates and more than 16 delegates from local non-Aboriginal communities. The Summit consisted of a trade show, with 20 businesses taking part, several plenary sessions on topics related to the Project, and keynote addresses by distinguished presenters, including the President of the Canadian Energy Pipelines Association (CEPA) and the Mayor of the City of Edmonton.

In conjunction with the 2011 Summit, Northern Gateway also hosted a half-day session on employment and training opportunities and initiatives associated with the pipeline construction industry. Immediately preceding the Summit, Northern Gateway organized a tour of Suncor's Athabasca oil sands mining and extraction operations in Fort McMurray, Alberta, for six Aboriginal communities from British Columbia who were not familiar with the processes involved in recovering oil from the vast oil sands resources of northeastern Alberta. This tour resulted in participants gaining a greater understanding of the Athabasca oil sands and the progress being made by industry in reclamation and other areas of operations. In November 2011, Northern Gateway organized a similar tour of the Oil Sands Discovery Centre for three representatives of the Gitksan Nation of British Columbia.

Northern Gateway continues to implement a process for Aboriginal Traditional Knowledge (ATK) studies to be completed by Aboriginal groups in relation to the Project, including:

- the sharing of the final ATK community report with the Aboriginal community;
- reviewing and tracking of ATK issues and concerns raised by the Aboriginal groups;
- flagging of issues that can be addressed immediately and subsequently discussed during ongoing technical meetings with the Aboriginal community; and
- recording issues that cannot be addressed immediately in an ATK tracking document by referencing the kilometre-post location of that site specific issue.

During 2011, Northern Gateway received six completed ATK studies from Aboriginal groups in Alberta. Currently, there are eight ATK studies under way with Aboriginal groups in Alberta, with at least five of these in the final stages of completion. Northern Gateway has scheduled Project technical sessions in the second and third quarters of 2012 with Aboriginal groups that have completed ATK studies. Northern Gateway will do the same for those groups that submit completed ATK studies during 2012.

In October and November 2011, Northern Gateway held several Project technical meetings with six Aboriginal groups, including five from Alberta and one from northeastern British Columbia to discuss various aspects of the proposed Project, and to address concerns and answer questions from community members related to the proposed Project. Northern Gateway also presented a session on water-course crossings to two of the groups. In addition, in cases where an Aboriginal group had completed an ATK study and identified issues and concerns in the study, Northern Gateway's technical team addressed the ATK issues and concerns during the technical session.

In 2011, Northern Gateway established the Burns Lake Aboriginal Communities Working Group (Working Group) for the regions of Fort St. James and Burns Lake, British Columbia. The purpose of the Working Group is to develop strategies to maximize the participation of Aboriginal communities and their members in business, economic, and



social opportunities relating to the development, construction and operation of the Project. The Working Group held its first meeting in June 2011, and schedules monthly meetings.

In the latter part of 2011, Northern Gateway representatives began working with community members from the Kitselas First Nation in British Columbia to establish a working group to discuss strategies for a more collaborative approach to project design optimization and environmental stewardship.

In April 2011, Northern Gateway conducted an open house with the Sawridge First Nation in Alberta to provide Project information to the First Nation, including Project technical information, information on proposed water-course crossings and an overview of the proceedings of the Joint Review Panel (JRP), which was established to review the proposed project. The JRP has a broad mandate to assess the potential environmental effects of the project and to determine if it is in the public interest.

In addition, Northern Gateway attended two community meetings in Alberta—with the Sturgeon Lake Cree Nation in October 2011; and with the Horse Lake First Nation in December 2011. At the Sturgeon Lake Cree Nation meeting, Northern Gateway provided a Project update to community members and presented information surrounding an Aboriginal Economic Benefits Package and on the JRP regulatory process. At the Horse Lake First Nation meeting, Northern Gateway provided information to community members regarding an Aboriginal Economic Benefits Package and answered general questions about the Project. (For more details about the Aboriginal Economic Benefits Package, please see below.)

***Regulatory Application and Process:***

Northern Gateway continued to notify Aboriginal groups included in the Aboriginal Engagement Program of updates and supplementary information filed with the JRP, including notification of the Update to the Application in April 2011, notification of the Update to the Project Application in June 2011, notification of Hearing Order OH-4-2011 by the NEB in May 2011 and Invitation by JRP in May 2011 to the public to attend public information sessions regarding the joint review process established for the Project.

The JRP secretariat conducted information sessions in Alberta and British Columbia in June 2011 to share information with the public on the JRP process and how to participate in the process. In the fall of 2011, Northern Gateway responded to thousands of information requests received in Round 1 and Round 2 of the Project application. A significant number of these information requests were submitted by Aboriginal groups from British Columbia and Alberta. The deadline for submitting written evidence by Aboriginal groups who intervened in the process was January 4, 2012. The JRP commenced its oral community hearings in Kitamaat Village on January 10, 2012. The initial oral hearings were for intervenors who had requested the right to supplement their written evidence orally. The majority of the presentations were from Aboriginal groups who provided oral evidence on their traditional activities in areas that might be impacted by the pipeline, terminal or tanker traffic.

***Aboriginal Economic Benefits Package:***

In 2011, Northern Gateway continued discussions regarding the Aboriginal Economic Benefits Package with eligible Aboriginal groups within three geographical regions: Alberta, interior British Columbia, and coastal British Columbia.

The Aboriginal Economic Benefits Package includes an Aboriginal Ownership Agreement (the Agreement), offering Aboriginal communities equity participation in the Project, as well as an opportunity to enter into a memorandum of understanding with Northern Gateway to further discuss potential opportunities arising from the Project, including employment, training, and procurement.

As of May 31, 2012, which was the deadline for entering into the Agreement, a majority of the groups eligible to participate as equity owners had signed up to do so. Almost 60 per cent of eligible Aboriginal communities along the proposed right of way, representing 60 per cent of the First Nations' population (and 80 per cent of the combined First Nations' and Metis' population) had agreed to be part owners of the proposed Northern Gateway pipelines. Half of the equity units taken up went to groups in British Columbia, and the other half to groups in Alberta.

Northern Gateway, under the current terms of the Agreement, cannot disclose the names of the Aboriginal groups who have entered into the Agreement until the commencement of the formal hearings in September 2012.

**Education, Training and Skills Development:**

In 2011, Northern Gateway developed an Education, Training and Employment Strategy as a mechanism to help local community members develop the essential and transferable skills necessary to work in the growing pipeline and construction sectors.

As part of the overall strategy, Northern Gateway launched a \$1.5-million Education and Training Fund to support flexible community-based training specific to the pipeline and construction sector. Northern Gateway is working with local Aboriginal and non-Aboriginal communities, as well as training providers, to design custom education and training-to-employment programs, and utilizes the fund to cover shortfall costs not funded through existing federal and provincial programs. As part of this initiative, Northern Gateway contributed \$80,000 to the Trade Winds to Success program to use towards trades training for members of six Aboriginal groups in proximity to the proposed Project corridor. Northern Gateway will continue to actively engage in workforce planning initiatives in both Alberta and British Columbia as a mechanism to deal with present and anticipated skilled labour shortages in the pipeline and construction sector.

In March 2011, Northern Gateway attended a career fair at the Paul First Nation in Alberta and provided Project information to participants, including information related to potential employment and training opportunities arising from the Project. Northern Gateway also distributed the Northern Gateway Skills Development Catalogue and National Energy Board information to interested persons.

In July 2011, Northern Gateway also attended the Industry Relations Community Lands Conference at the Horse Lake First Nation in Alberta and provided Project and Economic Benefits Package information.

**Community Advisory Boards:**

Northern Gateway is continuing to foster and support discussion of all components of the Project through Community Advisory Boards (CABs) that are comprised of a cross-section of interested groups, including First Nations, Métis organizations, business leaders, local government and environmental organizations. Aboriginal groups continue to participate in the CABs on an ongoing basis, with a total of eight Aboriginal groups in British Columbia attending meetings of the CABs during 2011. A total of 12 Aboriginal groups, representing Aboriginal groups from Alberta and British Columbia participated in the CAB meetings during 2011 and the first quarter of 2012.

In Alberta, during 2011, Northern Gateway facilitated two CAB meetings in Grande Prairie and two CAB meetings in Edmonton. During the first quarter of 2012, Northern Gateway facilitated one CAB meeting in Grande Prairie and one CAB meeting in Edmonton.

In June 2011, a significant CAB Conference held in Richmond, British Columbia, brought together both Alberta and B.C. Aboriginal groups and included participation of senior Project management, including then Enbridge CEO Pat Daniel. The CAB was attended by representatives of seven Alberta Aboriginal groups and eight British Columbia Aboriginal groups.

**Community Sponsorships:**

Throughout 2011, Northern Gateway continued to demonstrate its commitment to Aboriginal groups by providing financial support to cultural, social, sporting, and community well-being events to the following Aboriginal groups in British Columbia and Alberta, including, but not limited to, the following initiatives:

**British Columbia**

- BC Aboriginal Achievement Foundation – BC Aboriginal Business Awards
- Gitxsan Hereditary Chiefs – Gitxsan Chiefs Summit 2011
- Industry Council of Aboriginal Business – “On Common Ground” Celebration
- Lheidli Teneh First Nation – Honour Your Health Challenge – 2011 Vancouver Sun Run
- Lheidli Teneh First Nation – Christmas Party Donation
- McLeod Lake Indian Band – Annual General Assembly and Barbecue
- North East Native Advancing Society – Go Karts for Girls
- Northwest Community College – Heavy Equipment Operator Technician Program
- Prince George Métis Elders Society – Sharing Our Aboriginal Culture Celebration
- Prince George Aboriginal Youth Hockey – 15th Annual Youth Hockey Championships
- Seabird Island Band – 35th Elders Gathering
- Skin Tyee First Nation – Christmas Party donation

- Smithers Secondary School – Hot Lunch Program
- “Spirit of the Peace” Powwow Society – 6th Annual Spirit of the Peace Powwow
- Tl’azt’en Nation – Youth Sports
- Vancouver Venture for Diversity – Annual Golf Tournament
- West Moberly First Nations – Annual Moberly Days
- Yekooche First Nation – community investment
- 3M Sport – 2011 BC All Native Fastball Championships

#### **Alberta**

- Alexis Nakota Sioux Nation – Annual Community Pow Wow
- Alexis Nakota Sioux Nation – Christmas community event
- Buffalo Lake Métis Settlement – community investment
- Buffalo Lake Métis Settlement – Christmas community event
- Council for the Advancement of Native Development Officers – Maskwacis Youth Business Dream Catcher Program
- Duncan’s First Nation – community sponsorship
- Duncan’s First Nation – community hockey event
- Enoch Cree Nation – Aboriginal Role Models of Alberta
- Enoch Cree Nation – Elders Christmas community event
- Kapawe’no First Nation – community sponsorship of elder and youth initiatives
- Kelly Lake First Nation – community sponsorship
- Kikino Métis Settlement – community rodeo
- Lesser Slave Lake Indian Regional – LSLIRC Annual Golf Tournament
- Native Network Inc. – Aboriginal Economic Summit
- Métis Nation of Alberta Association – Grande Prairie Métis Local #1990
- Métis Nation of Alberta Region II – Boxing Day Talent Show
- Métis Nation of Alberta - Region V – Youth Program
- Sawridge First Nation – community investment towards displaced members due to Slave Lake fires
- Sucker Creek First Nation – Elder and Youth Initiative
- Sturgeon Lake Cree Nation – Annual Charity Golf Tournament
- Treaty 8 First Nations of Alberta – Christmas Gala event
- Whitefish Lake First Nation – Annual Treaty Days
- Whitefish Lake First Nation – Keyano Pimee Golf Tournament

#### **Enbridge Scholarships at The Banff Centre**

Further to the report above about Enbridge’s national Aboriginal community investment in The Banff Centre, representatives from the following British Columbia Aboriginal communities received scholarships to participate in The Banff Centre’s week-long “Best Practices in Aboriginal Business and Economic Development” course in January 2011: Cheslatta Carrier Nation; Skin Tyee Nation; Tl’azt’en Nation; Yekooche First Nation; and West Moberly First Nations.

The course examined the fundamental issues of governance, such as the creation of culturally appropriate governmental institutions and the role of Aboriginal leaders in effectively planning, creating, and promoting economic policy for self-determined Aboriginal development.

The following topics were examined and explored:

- The Harvard Project on American Indian Economic Development

- Nation-building: Tools, policies, and leadership for Aboriginal governments
- Rethinking Aboriginal economic policy: insights and implications
- Case study presentations of “best practices” in Aboriginal economic policy and Aboriginal governance made by invited representatives
- Nation-building components: Asserting self-governance, building institutions, setting strategic direction, and taking action through strong leadership
- Separating politics and business: A community necessity
- Community economics model from an Aboriginal perspective
- All aspects of community economic development and business planning
- Financing Aboriginal economic ventures

In 2012, Enbridge has again committed to offering 12 scholarships to The Banff Centre's Aboriginal Leadership and Management programming to representatives from British Columbia Aboriginal communities located along the proposed Northern Gateway right-of-way.

**Challenges:**

In 2011, British Columbia Aboriginal communities opposed to the Project participated in protest marches in the following communities:

- Prince George, British Columbia
- Terrace, British Columbia
- Prince Rupert, British Columbia
- Gitksan Nation, British Columbia
- Calgary, Alberta

In May 2011, Chief Jackie Thomas of the Saik'uz First Nation of British Columbia and other members of the Yinka Dene Alliance met with Enbridge's then President and CEO Pat Daniel and members of the company's Board of Directors in Calgary, Alberta, prior to the Enbridge annual general meeting to discuss their group's opposition to the Project. Chief Thomas and other members of the Yinka Dene Alliance also attended the annual general meeting and expressed their opposition there.

Aboriginal individuals protested against the Project at the Joint Review Panel (JRP) public hearings held in Edmonton in January 2012.

In early 2012, three trappers from the Kelly Lake Cree Nation expressed environmental concerns relating to the Northern Gateway pipeline. One of these trappers has a registered trap line within the Project's corridor. Northern Gateway representatives will continue to meet with the trappers and Kelly Lake Cree Nation community members in an attempt to resolve their issues and concerns relating to the project.

On March 26, 2012, approximately 750 people took part in an anti-Project rally outside Enbridge's Vancouver offices, and on March 31, 2012, a similar number protested outside the recreation centre in Comox, B.C., as the JRP heard presentations inside.

On April 2, 2012, a scheduled JRP hearing was cancelled because of security concerns after panel members were met by a large crowd of protesters at the Bella Bella, B.C., airport on April 1.

On May 9, 2012, several hundred protesters peacefully marched to the King Edward Hotel in Toronto, where Enbridge Inc.'s Annual General Meeting was being held. With media in attendance, the protesters chanted and drummed in the street outside the hotel.

Northern Gateway representatives continue, whenever possible, to meet with those Aboriginal communities who oppose the Project with a view to being afforded an opportunity to clarify misconceptions about the effects of the Project on Aboriginal reserve, treaty, and traditional territory lands, and to consider potential mitigation measures to address concerns raised by Aboriginal communities.

**CANADA – ENBRIDGE GAS DISTRIBUTION**

In June 2009, Enbridge signed a Cooperation and Land Use Agreement with the Mohawk Council of Akwesasne (MCA) that recognizes the importance of meaningful discussions between the parties and provides economic, social and community benefits for Akwesasne.

In 2011, this agreement provided the structure for dialogue regarding the installation by Niagara Gas

Transmission Ltd (NGTL), a wholly owned subsidiary of Enbridge Inc., of a new underground pipeline crossing the north channel of the St. Lawrence River using horizontal drilling technology.

On January 20, 2012, the Mohawk Council of Akwesasne held an official ceremony to recognize an infrastructure-related one-time contribution of \$1 million from NGTL. Under the agreement, NGTL has committed to annual payments of approximately \$100,000 for the next 20 years for the use of Akwesasne land for the new NGTL pipeline. The agreement also provides for on-going communication and cooperation protocols regarding NGTL activities in the Akwesasne community situated in eastern Ontario, near the Canada-U.S. border.

To build the crossing, Enbridge and NGTL worked closely with the MCA's Department of the Environment on a harmonized environmental assessment report, which incorporated traditional knowledge into project plans. One of the action items required by the report was the removal of the abandoned pipe and the protection of culturally important trees.

Enbridge and NGTL also ensured that it bought materials and rented workspace from local businesses, and structured contracts that promoted the hiring of Akwesasne workers and contractors.

## **CANADA – WIND AND SOLAR ENERGY**

### **Enbridge Ontario Wind**

Enbridge's 190-megawatt Ontario Wind Power Project located at Kincardine in Bruce County, Ontario, on the eastern shore of Lake Huron, went into full commercial operation in 2009. It is the fourth largest wind farm in Canada.

The wind farm is located within the traditional territory of the Saugeen Ojibway, which comprises two First Nations—the Chippewas of Nawash and Saugeen First Nation.

The agreements in place with the Saugeen Ojibway Nation include their participation in archeological work and in ongoing environmental monitoring, as well as potential employment, training and business opportunities for members of the Saugeen Ojibway Nation members.

Of the six permanent employees of the wind farm, two are members of the Saugeen Ojibway Nation.

In 2011, Enbridge worked to finalize the report on the environmental monitoring study conducted in 2010 with assistance from the Saugeen Ojibway Nation.

In 2011, Enbridge supported hockey teams from the Saugeen First Nation and the Chippewas of Nawash for their "Little NHL Hockey Tournament." Enbridge also contributed to Anishinabek Child & Youth Prevention Services for an after-school program. Enbridge also supported the Chippewas of Nawash 2011 golf tournament.

In 2011, the Enbridge School Plus Program provided over \$19,500 in funding to the Chippewas of Nawash Cape Croker Elementary School for a music and band enrichment program, as well as a sports and leadership camp.

### **Sarnia Solar Project**

In connection with this project, Enbridge has maintained a relationship with the Aamjiwnaang First Nation, whose reserve is located in proximity to Sarnia, Ontario. In 2011 and 2012, Enbridge provided financial support for this First Nation's Youth After School Health and Fitness program.

### **Greenwich Wind Project**

In November 2011, Enbridge and Renewable Energy Systems Canada Inc. (RES) completed construction of the 99-MW Greenwich Wind Energy Project, which is located on Crown lands near Thunder Bay, Ontario, and the project began commercial operation. Throughout the earlier regulatory process, two local First Nations, the Red Rock Indian Band and the Fort William First Nation, had been engaged, culminating in the conclusion of agreements that provide sustainable benefits flowing from the project to each of the First Nations. The project hired community members during construction in 2011, and First Nations members provided almost 7,500 hours of labour to the project during that year. Also in 2011, Greenwich Wind contracted with a First-Nation-owned company to provide road maintenance services to the project in 2011-12. These services are being provided to the project on an ongoing basis by First Nation contractors.

The Greenwich limited partnership had also concluded agreements with local Métis organizations in relation to the project. In 2011, the project provided financial support to facilitate communication regarding the project between three local Métis community councils and their members, and to support Métis community development, as deemed appropriate by each of the community councils. In addition, in response to concerns expressed by the Métis Nation of Ontario, the project has agreed to prohibit the use of chemical-herbicide sprays in vegetation clearing activities during the operation of project transmission-line corridors, access roads and turbine-tower sites.

### **Lac Alfred Wind Project**

In 2011, Enbridge acquired a 50 per cent interest in the 300-MW Lac Alfred Wind Farm, which is currently under construction in the Gaspé region of Quebec. During the regulatory process, project developers had engaged with the Mi'qmaq and Malecite First Nations communities in the Gaspé to ascertain their concerns regarding the project. First Nations members have also been employed in construction of the project.

### **Conference Sponsorship**

Beginning in 2010 and continuing in 2011 and 2012, Enbridge has been a sponsor of the annual "Powering Up Aboriginal Energy" conference, held in Toronto. This conference, which is primarily directed at Aboriginal communities, discusses issues related to Aboriginal participation in the renewable energy industry.

### ***U.S. – MAJOR PROJECTS AND LIQUIDS PIPELINES OPERATIONS***

Enbridge engages with Native American communities in the U.S. regarding new projects and ongoing operations. These sovereign nations play an important role in Enbridge's planning, consultation and construction processes, with tribal environmental staff having an ongoing role on a consultative basis both during construction of a pipeline and when construction is complete and the pipeline is operational.

The U.S. federal government consults with recognized Native American tribes on a government-to-government basis, which is required under Section 106 of the National Historic Preservation Act. Enbridge also works directly with the tribes whose lands are being crossed by the company's construction projects. The tribal governments and the U.S. Bureau of Indian Affairs have to approve agreements with Enbridge to build on any tribal-owned tracts of land. In addition, the tribes are concerned with any construction or maintenance activity taking place on reservations so, as a courtesy, it is important that Enbridge keep tribal governments informed of any such plans.

Lastly, all Native American reservations have a Tribal Employment Rights Ordinance (TERO), which states that companies, such as Enbridge, will give Native Americans hiring preference on all work within reservations.

In the U.S., Enbridge Native American Affairs provided scholarships to the following:

- Leech Lake Tribal College – \$2,500
- Fond du Lac Tribal and Community College – \$2,500

In February 2011, the Mandan, Hidatsa and Arikara Nation (MHA) in New Town, North Dakota, hosted the International Energy Oil and Gas Summit. The Fort Berthold Indian Reservation of the MHA is experiencing rising oil production from the Bakken formation, which is resulting in unprecedented wealth for the tribe, but is also taking a toll on roads, safety and culture. The summit provided a venue for the oil industry to understand concerns and work with the tribe toward solutions. Enbridge was a sponsor of the Summit and participated in a panel discussion with other industry representatives regarding the future of oil and gas on the Fort Berthold Indian Reservation. Although Enbridge does not currently have assets or projects in this area, opportunities may exist there in the future.

### **Tabletop Exercise with the Fond du Lac Tribe**

On February 18, 2011, Enbridge participated in a tabletop exercise hosted by the Fond du Lac Tribe in Cloquet, Minnesota. In addition to representatives from tribal emergency management and Enbridge, the exercise included approximately 40 representatives from the U.S. EPA, Coast Guard, National Weather Service, Cloquet Fire Department, Culver Volunteer Fire District, and TransCanada Pipelines. So as to form a complete incident command structure, Enbridge participants included individuals from operations, pipeline maintenance, engineering, right-of-way, compliance, public affairs, safety and environment.

The day-long event involved a scenario of an oil spill on tribal land. Each participating group provided insight on how the response would be handled for the first 72 hours—from first responders to boom deployment, road closures and public notifications.

A "lessons learned" discussion was held following the exercise, providing participants and observers the opportunity to comment. Feedback from observers focused on establishing procedures with the Fond du Lac emergency management on how a spill would be handled and the steps that would be taken by the tribe in order to function as the lead agency during an actual emergency response.

### **Integrity Dig Meetings with the Bad River Band**

On November 10, 2011, Enbridge Native American Relations staff, in conjunction with the company's Integrity Digs Project group, met with representatives from the Bad River Band of northern Wisconsin. The band requested information and details on Enbridge's emergency response capabilities because the company's Line 5 crosses through sensitive and culturally significant areas. The meeting also focused on integrity-dig procedures for a scheduled dig on tribal land. Background materials on these processes were provided to share with other interested

band members. Enbridge representatives were able to address the band's questions, resolve immediate concerns and establish processes for on-going communication. As a result, the Bad River Band issued a permit for the dig, which took place without incident on November 21, 2011.

### **CROSS-BORDER PROJECT – MONTANA-ALBERTA TIE LINE**

In 2011, Enbridge acquired Tonbridge Inc. and assumed management of the Montana-Alberta Tie Line (MATL) project, a bi-directional power line project between Great Falls, Montana, and Lethbridge, Alberta. The project will provide power transmission for wind energy projects under development in northern Montana.

The MATL project crosses land in Montana that is of historic and cultural interest to the Blackfeet Tribe. The tribe is partnering with MATL in the identification and protection of any archeological, historic or cultural artifacts or areas that could be affected by the project. The tribe is providing a trained cultural resource monitor familiar with tribal history and pre-history in the project area, and Enbridge contributed over \$30,000 in 2011 to support the work of the monitor. The full-time monitor helps to identify tribal sensitive cultural resources and ensures appropriate treatment of these resources. The tribal monitor has been working in Montana since late fall 2011 when construction restarted and will continue through 2012 as construction progresses south from the U.S.-Canada border.

In Canada, Enbridge has engaged with the Kainai First Nation and the Piikani First Nation in southern Alberta to introduce Enbridge as the new project proponent and to provide updated project information. Enbridge is committed to continuing to meet and we look forward to developing positive long-standing relationships with these First Nations.

## **COMMUNITY PARTNERSHIPS AND INVESTMENTS**

### **Strategy**

Directed by our social vision statement, Enbridge in 2011 helped build communities across our operating regions in Canada and the U.S. that are sustainable, with solid infrastructure and programming in the company's six focus areas:

- Lifelong Learning
- Community Leadership
- Natural Legacy
- Arts & Culture
- School Plus
- Safe Community

By investing in each of these key areas with our dollars, partnerships and human capital, Enbridge is able to support organizations that contribute to the economic and social development of communities near the company's operations. Enbridge believes these investments are essential to being a good neighbour and are a contributing factor in maintaining the company's social license to operate. Please see below for more details on the six focus areas.

Enbridge partners with charitable and non-profit organizations in our various geographic regions in Canada and the U.S. that have the skills and expertise to effect change. The criteria and guidelines for Enbridge's Community Partnerships & Investments Program are outlined under the heading 'Policy' of this Society section.

In the year ended December 31, 2011, Enbridge's actual enterprise-wide Community Investment expenditure totaled \$13 million, which the company invested in more than 550 charitable, non-profit, and community organizations. This investment amount is growing with corporate earnings, and represents over one per cent of Enbridge's profits.

Following are details about Enbridge's approach to its six community investment focus areas.

### **Lifelong Learning**

Investing in educational programs in the regions where Enbridge's employees live and work helps to build strong, sustainable communities. Enbridge understands that today's students are tomorrow's leaders, and the company is committed to helping young people advance their education to achieve their greatest potential.

Through a commitment to educational opportunities for students and adults, we focus our investments on scholarships for higher education, programs that improve literacy, and skills in math and science.

### **Community Leadership**

Enbridge demonstrates community leadership by investing in innovative, leading edge initiatives in social services, health, volunteerism and leadership. In addition to civic investments, Enbridge also supports social development initiatives through employee-led United Way campaigns across the company.

### **Natural Legacy**

Enbridge's Natural Legacy Program provides the company with an opportunity to demonstrate its ongoing commitment to environmental stewardship, habitat remediation and protection. Enbridge does this through initiatives such as elementary educational programs, and the planting and care of native trees and plants throughout urban and rural areas along the company's rights-of-way.

Enbridge operates the program with environmental/conservation partners and employee volunteers dispersing the funding across Canada and the U.S. In 2011, Enbridge invested \$1.3 million in the program.

### **Arts & Culture**

The development and sustainability of cultural institutions is an investment in the vibrancy and diversity of a community. Enbridge supports arts and culture initiatives that make communities in which it operates brighter, warmer, and more interesting places to live.

### **School Plus**

Enbridge's School Plus Program—one of Enbridge's flagship community investment programs—was designed to encourage young Canadian Aboriginal students to stay in school. Established by Enbridge in partnership with the Assembly of First Nations, the School Plus Program supports enrichment programming and extra-curricular activities in First Nations schools near major Enbridge pipeline routes from Alberta to Quebec and the company's wind farm in Ontario. With funding from Enbridge, teachers have the means to find creative ways to make education more enticing to kids who are at risk of dropping out.

### **Safe Community**

Another one of Enbridge's flagship community investment programs, the Safe Community Program provides monetary support to:

- police agencies;
- fire fighters, including volunteer fire-fighting organizations in rural communities;
- Emergency Medical Services (EMS); and
- other related health providers who respond to emergency situations in the communities where Enbridge operates.

In 2011, the Safe Community Program provided over \$1.2 million in grants to 425 first-responder organizations in right-of-way communities in Canada and the U.S. Grants given through this program allow eligible organizations to acquire such support as new safety equipment, obtain professional training, and deliver safety educational programs in their neighbourhoods. By helping first responders, Enbridge is making its neighbourhoods safer and building sustainable communities.

### **Volunteers in Partnership (VIP) Program**

Enbridge encourages its employees to actively participate in their communities. Through Enbridge's Volunteers in Partnership (VIP) Program, the company recognizes employee contributions of time and dollars to charitable organizations by providing additional support in terms of paid volunteer time and top-up financial contributions. Enbridge supports employee volunteer opportunities by:

- providing grants of \$500 to non-profit organizations where employees have volunteered at least 40 hours or more of service per year outside of business hours in countries where Enbridge has operations; or providing grants to match an employee's individual fundraising efforts for one event per year up to a maximum of \$500;
- matching donations up to \$10,000 for employee contributions to the United Way during the campaigns of individual Enbridge business units;
- providing the opportunity for employees to take one paid day or eight hours off per year to volunteer at a non-profit organization of their choice in countries where Enbridge has operations; and
- providing one paid day or eight hours off per year for supervisor-led team-building volunteer activities in countries where Enbridge has operations.

Through this support, Enbridge gains a better understanding of the communities in which it operates, the challenges they face and the ways the company can best contribute.

### **Benchmarking and Assessment**

To help Enbridge ensure that its community investments are achieving the maximum results possible, the company has been working with London Benchmarking Group (LBG) Canada, of which Enbridge is a founding member. LBG



Canada comprises a group of companies that are using the “LBG model” to improve their management, measurement, and reporting of community involvement initiatives.

LBG Canada focuses on companies’ voluntary community contributions and applies consistent accounting principles to value their total investments. Companies value financial donations, as well as a full range of other contributions—including staff time, in-kind contributions, and management costs—that a company could make to a community.

In this regard, Enbridge’s enterprise-wide community contributions in 2011 totaled \$23.5 million.

The LBG Canada approach provides a process for assessing the results that the company and the community realize from contributions.

SiMPACT Strategy Group, facilitator of LBG Canada, worked with Enbridge to determine the true community value of the company’s 2011 Canadian community investments.

### **Leak on July 26, 2010, on Enbridge’s Line 6B near Marshall, Michigan – Community Investment and Community Enhancement Projects**

In July 2010, Enbridge experienced the worst spill in our history near Marshall, Michigan.

Since the beginning of the incident in Marshall, Enbridge has committed to cleaning up the Kalamazoo River and to restoring the area as close as possible to its pre-existing condition. We have worked hard to deliver on that commitment, and we will continue until the job is complete.

By spring 2012, cleanup, under the direction of the U.S. Environmental Protection Agency, had progressed to the point that the Kalamazoo River and Morrow Lake had been reopened for recreational use.

Enbridge’s commitment to the communities of Marshall, Battle Creek and areas along the Kalamazoo River extends much further than the cleanup itself. Enbridge recognizes how important the Kalamazoo River is to area residents. The river is a recreational hub, providing area residents with ample opportunity for fishing, kayaking, canoeing, and simply enjoying its beauty. Enbridge has committed to supporting community investment programs that will provide a long-lasting benefit to the community by enhancing recreational opportunities.

Based on input from local residents, community leaders and recreation groups, much of Enbridge’s community investment efforts are focused on increasing access to the Kalamazoo River. Enbridge has created or improved five river access sites to encourage recreational opportunities along the river.

Enbridge has also committed to a \$200,000 donation to the Kalamazoo River Valley Trail (KRVT) group in support of a walking/biking path that parallels the Kalamazoo River. On April 17, 2012, Enbridge’s then CEO Pat Daniel participated in a cheque presentation and groundbreaking ceremony with the KRVT group near Marshall. We believe that the KRVT group’s plan to extend the pathway through the county and along the river will provide a long-lasting recreational benefit to the area. The community-building and community-enhancing nature of this project is clear. It provides a way for residents and visitors to enjoy the natural beauty of the area and to connect with one another in a way that promotes active living. It also connects communities. The KRVT initiative is part of the Great Lake-to-Lake Trail that will traverse across the state and connect Lake Michigan to Lake Huron.

In addition, Enbridge has and will continue to support other programs in the Marshall region that align with its corporate community investment initiatives to help build sustainable communities. As at June 30, 2012, Enbridge had contributed over US\$600,000 to organizations in the area, including, among several others: the Marshall (Michigan) Historical Society; Wilder Creek Conservation Club; United Ways of Battle Creek, Marshall and Kalamazoo; the Red Cross of South Central Michigan; the Food Bank of South Central Michigan; and Michigan Envirothon.

## **PARTNERSHIP PROFILES**

### **LIFELONG LEARNING**

Enbridge recognizes that education is one of the most powerful gifts you can give, which is why we are proud to support educational opportunities that help students in all stages of life get ahead. Through a commitment to educational opportunities for students and adults, we focus our investments on scholarships for higher education, programs that improve literacy and skills in math and science.

Following are reports about some of the key lifelong learning initiatives we support.

#### **Enbridge Inc.**

*Enbridge Centre for Corporate Sustainability* – On March 27, 2012, Enbridge and the University of Calgary’s Haskayne School of Business inaugurated the Enbridge Centre for Corporate Sustainability, which will be a hub for thought leadership in the area of corporate social responsibility. Enbridge has donated \$2.25 million over 10 years for

the Centre, whose mandate is to advance corporate practices that help sustain our planet's people, environment and economy. To meet its mandate, the Centre will fund innovative graduate student and faculty research, and will invite renowned academics and business leaders to come and share their knowledge. Based on its research and knowledge-gathering work, the Centre will develop business practices focused on advancing sustainability, corporate citizenship and CSR. The Centre will also oversee the Enbridge Research in Action seminar series, which will bring together leading academics and industry experts from a variety of disciplines, institutions and organizations to raise the level of dialogue on CSR-related topics. As an incubator for future business leaders, the Centre will also help Enbridge and other companies in their recruitment efforts.

*Scholarships and bursaries* – In 2011, Enbridge contributed over \$95,000 through more than 60 endowed scholarships and bursary awards to 20 post-secondary institutions across Canada. By focusing on areas such as engineering, Aboriginal leadership, non-profit studies, and environmental sustainability leadership, Enbridge is actively supporting the development of the next generation of business and community leaders in a number of key areas.

*Calgary Stampede Foundation* – Enbridge partnered with the Calgary Stampede Foundation in support of The Enbridge Citizens of Tomorrow Program to provide equal opportunity programming for Calgary's youth. This program promotes western heritage while supporting leadership and character-building activities. In 2011, Enbridge provided 13 post-secondary scholarships to youth who were selected based on their achievements throughout their time at the Young Canadians School of Performing Arts or as part of the International Youth Livestock Show.

### **Liquids Pipelines Canada**

*NAIT* – Through Enbridge's financial support, the Northern Alberta Institute of Technology (NAIT) received funding for five annual student awards in the areas of Alternative Energy Technology and Biological Sciences Technology. The Enbridge Alternative Energy Technology Program at NAIT's new Centre for Sustainable Energy Technology is a diploma program that provides students with solid technical knowledge of solar, geothermal, wind, bio fuel, fuel cell, carbon capture, small hydro, and hybrid energy system applications required to support and promote Alberta's sustainable energy industry.

*Enbridge Biological Sciences Technology Renewable Resources program* – This Enbridge-funded program at NAIT specializes in training natural resources technologists to have a wide range of field skills and knowledge. The program provides students with a solid ecological foundation in the applied life sciences. Students gain a working knowledge of disciplines such as wildlife biology, botany, limnology, fisheries, entomology, soils, field sampling, environmental education, and resources skills management. Through laboratory work and lectures, the students learn about collecting and preserving biological soil and water samples for analysis, applying methods for the handling and management of plant and animal populations, and preparing chemical solutions for laboratory and field use.

*Adult Learning Centre Regina (ALC)* – ALC received funding from Enbridge to support the hiring of at-risk adults aged 19-30 as employees/apprentices during a 43-week program. The ALC uses an entrepreneurial business model approach to solve the social issues inherent in marginalized young adults. Through learning, healing and meaningful work, the ALC assists young adults in developing personal, social and employment skills needed to become independent, self-supporting and contributing members of society. The ALC provides an environment of understanding and counseling. It also provides a challenge for program participants, and reinforces in them the value of work, belonging and independence. Enbridge is a Platinum Sponsor for this program.

*Alberta School of Business* – Enbridge Pipelines Inc. renewed its partnership with the Alberta School of Business directed to Applied Business Research in Energy Sustainability, the Enbridge Professorship in Energy Policy, and the Enbridge Award in Energy and the Environment—all in support of continued research to find new ways for energy to be developed, transported and used in efficient and socially responsible ways while protecting the environment.

*Pembina Valley Conservation District* – Since Enbridge's 1992 donation to the Pembina Valley Conservation District supporting the purchase of a parcel of land known as Binney Siding Nature Preserve, Enbridge has continued to support the sustainability of this 30-acre marshland, meadow and grassland educational site in Manitoba. Through our support, we are helping to ensure the completion of an outdoor classroom/shelter and sponsoring the South Central Eco Institute's River Watch Program, which supports local students and teachers in monitoring the water quality of selected rivers and streams in the Red River Basin watershed. River Watch is an international program of river monitoring performed by various agencies. Students work alongside conservation professionals in this endeavour. This partnership is another excellent example of Enbridge's ongoing commitment to environmental stewardship.

*Ducks Unlimited Canada* – In 2011, Enbridge partnered with Ducks Unlimited Canada (DUC) to breathe new life into

an aging, but thriving wetland near the town of Killam in central Alberta. As part of a donation from Enbridge, DUC is providing maintenance and repairs to the Wetthuhn project to ensure 39 acres of wetlands remain healthy and natural. The Wetthuhn project is a perfect example of the work DUC is currently undertaking to maintain and restore wetlands throughout Alberta, and these much-needed repairs to the structure will ensure it continues to function effectively for the next 40 years.

### **Liquids Pipelines U.S.**

*Minot Public Schools Community Learning Centers (CLC)* – Enbridge Pipelines partnered with the Minot Public Schools' after-school program to educate students in grades K-5 about pipeline operations. After-school presentations were held at eight different schools in the Minot, North Dakota, area, followed by a station tour during the summer CLC session in 2011.

### **Gas Transportation / Enbridge Energy Partners**

*Linda Lorelle Scholarship Fund* – The Linda Lorelle Scholarship Fund is dedicated to providing college scholarships, support and guidance to Houston-area high school students in need of financial assistance whose potential may be unfulfilled due to other life circumstances.

*The Keystone Center's Key Issues Institute* – For the ninth consecutive year, Enbridge recruited middle school science teachers from areas of our U.S. operations to attend The Keystone Center's Key Issues Institute. Enbridge sponsored the participation of six teachers from Marshall and Battle Creek, Michigan, in the interdisciplinary program that provides educators with a balanced and non-biased process for teaching students the concepts of sustainability and investigating environmental issues.

### **Enbridge Gas Distribution (EGD)**

*Junior Achievement (JA)* – EGD's support of JA Southern Ontario and JA Eastern Ontario is well aligned with the company's community investment goals. JA's Dollars with Sense program introduces students to personal financial management concepts. Students learn to assess personal goals, learn about money as a means of exchange, and explore various investment vehicles through role playing and investment simulation. In 2010/2011, as a result of Enbridge employee volunteerism, over 2,000 students benefited from the JA experience.

## **COMMUNITY LEADERSHIP**

Enbridge's community investment focus on community leadership reflects our commitment to innovative initiatives that improve the quality of life for members of communities where we operate. We strive to promote leadership in these communities by supporting the United Way, health care institutions and health programs and social services organizations.

Following are reports about some of the key community leadership initiatives we support.

### **Enbridge Inc.**

*Enbridge Ride to Conquer Cancer* – Enbridge is the National Title Sponsor of The Enbridge Ride to Conquer Cancer from 2011-2013, with events taking place in Alberta, British Columbia, Quebec and Ontario. The Enbridge Ride to Conquer Cancer is the largest cycling fundraiser in Canadian history. In 2011, more than 11,000 riders raised a total of \$44 million to support cancer research, treatment and care. In addition to Enbridge's sponsorship role, Enbridge employees were active participants in the ride, with more than 200 employees, friends and family members raising more than \$900,000.

*Volunteers in Partnership (VIP) Program* – The enterprise-wide Enbridge VIP Program supports the volunteer efforts our employees are making in communities where we operate through grants to match their time and their fundraising efforts. In 2011, the program reached a milestone—almost two years since its inception, the program has engaged over 1,100 employees from all over Canada and the U.S., and contributed \$280,000 and over 4,500 hours to the community.

*United Way Employee-led Campaign* – Enbridge's Calgary office raised over \$1 million during the city-wide United Way Campaign in 2011. Of this amount, \$873,855 was donated to the United Way of Calgary and Area and \$209,957 was donated to Aspen Family and Community Network Society's Families in Transition program. Over two-thirds of the company's Calgary-based employees were involved in the United Way campaign, through either a volunteer activity or a monetary donation.

*Aspen Family and Community Network Society's Families in Transition Program* – Enbridge's Calgary-based employees raised \$209,957 through a silent auction with proceeds going directly to the Families in Transition

Program, an Enbridge-sponsored program of Aspen Family and Community Network. Now into its 13th year, this program helps to transition families at risk into more stable living conditions. Employees host these families throughout the year in various social activities, including organizing an annual “Back-Pack” program in August, providing necessary school supplies and gift certificates for clothing, food and entertainment.

*4-H Canada* – Enbridge proudly committed \$260,000 to 4-H Canada as the National Sponsor of their 100th anniversary in 2013. To celebrate the upcoming milestone, a new anniversary logo was unveiled at the Calgary Stampede on July 13, 2011. Enbridge shares 4-H’s commitment to youth and understand how important the next generation is in helping to build, sustain and grow vibrant communities.

*Timeraiser* – Since 2006, Enbridge has partnered with the Framework Foundation in support of its Timeraiser events. The Timeraiser program is a comprehensive volunteer engagement process that makes it easier for individuals to find meaningful and relevant volunteer opportunities in their community. It also benefits non-profit and charitable organizations by connecting them with quality, skilled volunteers. The annual Timeraiser event facilitates connections between a variety of groups, including young citizens, businesses, charitable and not-for-profit agencies, and emerging artists. The event is part volunteer fair, part silent art auction and part night on the town, with people matching their skills with agencies and bidding volunteer hours for artwork. In 2011, Enbridge supported the 6th annual Timeraiser held in Calgary. With over 400 people in attendance and 26 non-profit agencies seeking skilled volunteers, a total of 7,115 volunteer hours were pledged, and \$16,000 was invested in the careers of Calgary-based artists. Of the 26 works of art, 23 went for the maximum bid of 100 hours. Over 25 Enbridge employees attended the event in support of local artists and non-profit organizations. Enbridge was also the Presenting Sponsor of Edmonton’s Timeraiser event in 2011.

*Famous 5 Foundation* – As Presenting Sponsor of the Enbridge Famous 5 Foundation luncheons in Ottawa, Enbridge sponsored The Governor General’s Persons’ Case Award luncheon on October 19, 2011, honouring prominent women as nation builders. The Famous 5 women opened the doors of the Senate of Canada to women with their petition, later known as the Persons’ Case. Enbridge is also the Presenting Sponsor of the Enbridge Famous 5 Speaker Series in Calgary, Edmonton and Fort McMurray, providing \$75,000 annually in support of the Famous 5 Foundation’s community initiatives across Canada.

*TELUS Spark - the new Calgary Science Centre* – Enbridge has been a long-standing supporter of the Science Centre in Calgary and an instrumental partner in its transformation over the past few years. Enbridge is proud to be the underwriter of the Enbridge Volunteer in Partnership Program at TELUS Spark, a program that will allow people to contribute their time to meaningful pursuits. On October 29, 2011, TELUS Spark—Canada’s first brand new Science Centre in more than 25 years—opened its doors to the public.

*Canada’s History Forum* – Enbridge was proud to be the Presenting Sponsor of Canada’s History Forum: Speaking of the Past: History Beyond the Classroom, on December 11, 2011, as well as a Supporting Partner of the 2011 Governor General’s Awards for Excellence in Teaching Canadian History, the nation’s top teaching prize honouring teachers who excel at bringing history to life for their students.

*Calgary Family Services* – In partnership with Calgary Family Services, Enbridge Inc. presented the 2011 McKillop Award for Community Service to four individuals in the not-for-profit human services sector for their outstanding service to Calgarians. Each individual received a \$2,500 award.

*Cenovus TRTL: Technological Residence Traditional Living* – Enbridge believes in supporting leaders in our communities by investing in innovative initiatives and as such, we proudly sponsored the University of Calgary’s entry into the U.S. Department of Energy’s Solar Decathlon 2011 in Washington, D.C., that ran from September 23 - October 2. The entry—called Cenovus TRTL: Technological Residence Traditional Living—is a safe, durable net-zero solar powered home that addresses critical issues in Aboriginal housing. The University of Calgary’s TRTL project members were the only Canadian entry in the 2011 solar home competition, which challenged 20 international student-led teams to design, build and operate the most attractive, efficient and affordable solar-powered dwelling. The Canadian team finished in 10th place.

*Earthquake/Asia-Pacific Tsumani Crisis Relief* – Enbridge’s Natural Disaster Response Policy was activated on March 15, 2011, in an effort to support those affected by the earthquake and tsunami in Japan and in response to internal inquiries from employees in all of our business units. Enbridge committed to a corporate donation of \$25,000 to the Red Cross and matched individual employee donations, up to \$1,000, to the Canadian and American Red Cross Japan Earthquake/Asia-Pacific Tsunami Fund. Enterprise-wide, 446 employees donated \$72,065. With Enbridge’s match of employee donations, the total contribution to the Red Cross was \$169,130 .

*East Africa Humanitarian Crisis Relief* – In accordance with Enbridge’s Natural Disaster Response Policy and in

response to the humanitarian crisis in the Horn of Africa in 2011, Enbridge matched employee's donations, up to \$1,000, to the Canadian and American Red Cross East Africa relief fund efforts. Enterprise-wide, 321 employees donated a total of \$58,460.75. With Enbridge's match of employee donations, the total contribution to the East Africa relief efforts was \$116,921.50.

### **Liquids Pipelines Canada**

*United Way Employee-led Campaign* – Enbridge Pipelines' Alberta Capital Region campaign collected contributions of over \$1.2 million for the 2011 campaign period. Of this amount, \$50,000 was directed specifically to the Welcome Home program, which provides companionship to individuals and families that have made the journey from homelessness, to help them retain their housing.

*Timeraiser* – In 2011, Enbridge Pipelines, which is a founding sponsor of Edmonton's Timeraiser, participated in the sold-out event, which raised over 4,100 volunteer hours for the 25 participating charities. Over \$11,000 was contributed to 20 local artists who received fair market value for their artwork entered into the event.

*Dow Youth Centre for Excellence* – Since 2008, Enbridge has supported this centre's efforts to provide quality programs to children and youth from a variety of socio-economic groups and backgrounds living in Sarnia-Lambton in Ontario. The programs strengthen the social, physical and emotional health of the children and youth—a vital element in building a healthy, caring and progressive community. The Dow Centre for Youth is coordinating an unprecedented collaboration of agencies that will provide as many services as possible to as many children and youth as possible. By housing youth-oriented agencies under one roof, the centre is promoting greater synergies and cost savings that can be diverted back into programs.

### **Liquids Pipelines U.S.**

*Supporting Red Cross in Disaster Relief* – When disaster struck last summer—in Joplin, Missouri, in the form of a strong tornado and in and around Minot, North Dakota, in the form of devastating floods—the Red Cross stepped in to help in the recovery efforts, and Enbridge stepped up to help the Red Cross.

In May 2011, a large tornado killed approximately 125 people in Joplin, making it the eighth deadliest tornado in U.S. history. Government officials said that 8,000 structures were damaged or destroyed, along with 1,800 acres within the city limits, affecting everyone in the community of 50,000 people. Joplin High School and two elementary schools were a total loss, with estimated damages of \$200 million to the school system. It is estimated that 300 businesses in Joplin were destroyed, including St. John's Hospital. Just a few days later, a contingent of Enbridge employees, contractors and family members were on the ground in Joplin, unloading donations and handing out water and food.

Enbridge also donated \$20,000 to the American Red Cross Greater Ozark Chapter and \$10,000 to American Red Cross of Central Oklahoma, an area that also was impacted by tornadoes in May.

In June and July 2011, the Souris (Mouse) River flood devastated Minot and the surrounding area. More than 4,100 homes were inundated by flood waters, forcing an evacuation of more than 10,000 people. While Enbridge's North Dakota pipeline system continued to operate normally, our employees in the Minot office found more than a few ways to help their fellow neighbours. Enbridge contributed \$60,000 to the Red Cross Mid-Dakota Chapter—\$10,000 in the spring and an additional \$50,000 after the Souris had breached the dike system. Enbridge's offices were closed in Minot on June 24, 2011, so that employees could assist with evacuation and sandbagging efforts, and several continued to contribute their time serving food at the local Red Cross shelter, caring for displaced pets, and helping in any way they could. Our employees continued their support for the community on July 19 when they hosted a free community-wide barbeque. More than 400 community members stopped to take a break from rebuilding to enjoy a meal of hamburgers and bratwurst grilled by more than 20 Enbridge employees from the Minot office and terminal. Numerous volunteers from our Minot office also distributed free water to residents who had been placed under a boil order starting on June 25.

### **Gas Transportation / Enbridge Energy Partners**

*United Way* – In 2011, Enbridge donated more than \$500,000 to United Way organizations across the U.S. The company hosted workplace-giving campaigns in all office locations.

*Houston Zoo* – Enbridge's funding of the Houston Zoo supports five education efforts that bring Science Technology Engineering and Math (STEM) programs to under-served students throughout greater Houston, linking Texas Essential Knowledge and Skills (TEKS) principles to the programs taught.

*Trees For Houston* – Enbridge sponsored a second tree planting with Trees For Houston and engaged employees and their families. The donation also funded tree maintenance due to the drought that the state of Texas experienced in 2011. Trees For Houston is a non-profit organization dedicated to planting, protecting and promoting trees.

### **Enbridge Gas Distribution (EGD)**

*True Patriot Love Foundation* – EGD has invested \$200,000 in support of the True Patriot Love Foundation, which supports and honours members of the Canadian military and their families. On August 18, 2011, the Foundation in partnership with the Government of Ontario unveiled a bronze plaque to commemorate the sacrifices made by Canadian soldiers and their families. The plaque has been placed on 26 bridges along the Highway of Heroes. The money raised through the plaque sponsorship will support military families through programs that help send children to summer camp, provide psychological counseling, retrofit homes and cars for soldiers returning with injuries or amputations, and rehabilitate wounded soldiers through sport.

*Niagara Health System (NHS) Foundation* – EGD is partnering with the NHS Foundation, helping them meet the growing health-care needs of the Niagara Region, specifically as it relates to access to cancer, cardiac, mental health and kidney dialysis treatment.

*York Central Hospital Foundation (YCHF)*—York Central Hospital is a large, full-service community hospital with over 80,000 visits annually to its Emergency Department, serving a population of more than 400,000 in Southwest York Region and beyond. Located in one of Canada's fastest growing communities, the hospital is on a capacity-building journey that focuses on using the best available practices, newest technologies and innovative models of service to provide superior patient care. Enbridge has provided important philanthropic dollars, and our employees have played key volunteer roles in helping the Foundation fulfill its mission and mandate. EGD's commitment of \$120,000 to the York Central Hospital Foundation over the next four years will help support the purchase of much-needed medical technology in the Endoscopy Department, which provides important diagnostic services for a wide variety of disorders. Enbridge has also committed to sponsor two York Central Hospital signature events.

*United Way* – EGD and its employees exceeded its goal of \$1.8 million, raising an outstanding \$2,204,100 to support the United Way 2011 Campaign. Employee pledge participation increased by 8 per cent over the previous year, with 375 new donors and a total increase of 22 per cent in dollars pledged. Of these employees, 180 donated at the Leadership Level of \$1,000 or more, which is a 16 per cent increase over last year, with 45 new Leadership Donors.

*CN Tower Climb* – As the proud Title Sponsor of the Enbridge CN Tower Climb for United Way for the past decade, 232 EGD employees, as well their family members and friends joined Team Enbridge to raise the highest amount for an event—over \$65,000. This year's Climb also helped set a new EGD fundraising record, with over \$2.2 million raised to support United Way. Since Enbridge's first year as title sponsor, the Climb has raised more than \$13 million.

*Winter Warmth Program* – To help Ontario households stay warm, EGD, together with the United Way, launched the 2011-2012 Winter Warmth Program. Winter Warmth provides support to low-income customers and is coordinated by a network of community-based agencies through the United Way. In 2011, over 1,300 Ontario households received support with their Enbridge natural gas bills. Since Winter Warmth started in 2004, it has helped over 7,500 households with their Enbridge bill. In addition to Winter Warmth, Enbridge works with individual customers who are having difficulty paying their bills to make payment arrangements—programs such as the Enhanced TAPS program and home weatherization that reduce costs in the long-term, golden age service for seniors, and a budget billing plan to help manage energy bills and payment arrangements. In 2011, EGD contributed \$600,000 towards the Winter Warmth fund. As part of EGD's annual Winter Warmth drive, EGD employees participated in numerous community events, including the 7th Annual Winter Warmth Drive across the Greater Toronto Area, the Salvation Army Ottawa Booth Centre, as well as the E.T.A. Vaughn Women's Centre and the Salvation Army Family Life Resource Centre in Brampton, Ontario, which provide emergency housing and support services to women and children who are victims of abuse. Employees donated items to one of 12 families that their departments adopted as part of the drive.

*Eva's Initiatives* – EGD sponsors Eva's Initiatives' Home for Life fundraising event, which focuses on supporting innovative and award-winning programs that assist homeless youth to leave the streets permanently and make the transition from being homeless to becoming self-sufficient members of the community. Eva's Initiatives operates three unique shelters in the Greater Toronto Area that daily feed 114 youths aged 16 to 24. With cutting-edge services and distinctive programming, the shelters provide a continuum of services not available elsewhere in Canada. Nationally, Eva's Initiatives works to build innovative long-term solutions to youth homelessness. In 2011, Eva's Initiatives was able to open the doors of its three shelters to 1,763 residents and 2,598 non-residents. For the second year in a row, Eva's Initiatives was selected as one of Canada's Outstanding Charities by Charity Intelligence, making Eva's Initiatives one of only 33 charities across Canada identified for leadership, cost-efficiency and most importantly, bottom-line results in getting the job done in helping clients.

*Enbridge Gas New Brunswick (EGNB) Fix It In 5 Community Improvement Initiative: 9 Projects in 9 Communities in 5 Days* – Nine projects came out on top in EGNB's first ever Fix It In 5 Community Improvement Initiative. For three weeks, individuals and groups from each of Enbridge Gas New Brunswick's nine service areas submitted fix-up project proposals, and community members had the opportunity to vote on which project they wanted to see completed in their community. The projects were selected based on the highest number of votes. From June 13-17, 2011, volunteers from each of the organizations joined EGNB employee volunteers to improve their community spaces, for a contribution value totaling over \$15,000.

## **NATURAL LEGACY**

At Enbridge, we take our responsibility to the environment seriously, and recognize that the way we treat the planet is our natural legacy. Because of this, we invest in programs that promote environmental stewardship, conservation, habitat remediation, habitat protection and environmental education.

Following are reports about some of the key natural legacy initiatives we support.

### **Enbridge Inc.**

*The Calgary Awards* – Enbridge is the Platinum Sponsor of the Calgary Awards in the 'Environmental Achievement' category, which recognizes an environmental not-for-profit organization. The Calgary Awards, presented by The City of Calgary, honour members of the community who have made a significant contribution toward improving the quality of life for Calgarians. At an award ceremony on June 15, 2011, Green Calgary received the 2010 Not-for-Profit Environmental Achievement Award in recognition of their Healthy Homes Program, a holistic in-home consultation that addresses environmental and community issues in Calgary, including waste reduction, water conservation, energy efficiency, toxic cleaning products and sustainable food choices.

### **Liquids Pipelines Canada**

*Ducks Unlimited Canada (DUC)* – In partnership with DUC, Enbridge's funding has contributed to a rebuild and enhancement initiative at the McKell Wascana Park in Regina, Saskatchewan, including the naming of the Enbridge Trail (Trail #1).

Enbridge's funding of DUC also supported the updating and improvement of the Wawanosh Wetlands Conservation Area in Sarnia, Ontario, including work on the dyke, trails and interpretive signs and improving access to ensure continued public use of the area and creating a much needed field-trip destination for DUC's Project Webfoot. This conservation area consists of substantial wetland and surrounding upland habitat and trails. The St. Clair Region Conservation Authority maintains ownership and management of Wawanosh, which includes facilities to support outdoor education and recreation. A 2.5-kilometre nature trail winds along the marsh and is complete with interpretive signs to help visitors find out more about wetlands and how we depend on them.

*Alberta Emerald Foundation* – In 2011, Enbridge contributed to a new initiative in support of the Alberta Emerald Foundation's work of recognizing those committed to protecting, preserving, enhancing and sustaining our environment. We were the Media Sponsor of a television campaign (in Edmonton and Calgary) depicting the great work of recipients of the Emerald Awards. Through our support, Enbridge was able to help the Emerald Foundation share more of *Alberta's Green Success Stories* with a broader audience than ever before, while also building on the video vignettes creation project that Enbridge began in 2007.

### **Gas Transportation / Enbridge Energy Partners**

*The Nature Conservancy of Texas* – Enbridge sponsored The Nature Conservancy of Texas' Houston luncheon to bring awareness to the needs of conservation in this area of the world.

*The Nature Conservancy of Louisiana* – Enbridge again contributed to The Nature Conservancy of Louisiana's Fund for Gulf Coast Restoration to support their work to restore flows of freshwater and sediments to the marshes, rebuild oyster reefs, restore sea-grass beds and coral reefs, and protect coastal habitats.

*Gathering Waters* – In 2011, Enbridge fulfilled its pledge of US\$15,000 to Gathering Waters in recognition of the organization's 15th anniversary in 2010. Gathering Waters supports land trust organizations throughout the state of Wisconsin and has land trusts in almost all of the areas where Enbridge operates its pipelines.

*Hartley Nature Center* – Enbridge contributed US\$2,000 to the Hartley Nature Center in Duluth, Minnesota, to support its youth environmental education programs and its annual Youth Outdoor Expo.

## **Enbridge Gas Distribution (EGD)**

*Pollution Probe* – Enbridge is a proud sponsor of Pollution Probe's Clean Air Commute, a charitable environmental organization dedicated to achieving positive and tangible environmental change. Now in its 19th year, the 2011 Clean Air Commute is a week of friendly competition among workplaces, with the goal of reducing the pollutants in our air and our lungs. In 2011 alone, 14,000 employees from more than 150 workplaces prevented more than 500 tonnes of air pollutants from being released. They carpoled, biked, walked and took public transit. During the Clean Air Commute Campaign each June, EGD and its employees find cleaner ways to commute to and from work to reduce smog. EGD employees are encouraged to participate through employee events, information sessions and contest giveaways. Thanks to the high participation rate of our employees, EGD's smog savings during the 2011 campaign totaled 12 tonnes.

*St. Clair Region Conservation Authority* – In 2010, Enbridge announced plans to partner with the St. Clair Region Conservation Authority to plant trees on close to 200 acres of EGD-owned property near Courtright, Ontario. The five-year partnership will see the creation of forest areas, upland habitat and wetlands to create habitat for a variety of species, including migratory waterfowl. Work commenced in 2011 with the planting of 13,150 trees and the construction of a wetland on one of the two EGD properties involved. 2011 was a particularly wet year and despite the delays to the spring planting, the results have been among the best that the Conservation Authority has experienced. The work is expected to continue over the next two to three years, with an estimated 50,000 trees and areas of tallgrass prairie still to be planted. The program will see an additional 10,000 of these trees planted in the spring of 2012.

## **ARTS & CULTURE**

Enbridge delivers more than the energy you count on. We deliver on our promise to make communities better places to live by investing in visual and performing arts, and other organizations that contribute to culturally vibrant communities. For us, theatre, dance, music, visual arts and, in fact, all forms of expression provide communities with a unique identity—and all of us with sources of inspiration and beauty.

Following are reports about some of the key arts and culture initiatives we support.

### **Enbridge Inc.**

*Governor General's Performing Arts Awards* – As the second year Presenting Sponsor of the Governor General's Performing Arts Awards (GGPAAs) in Ottawa, an Enbridge contingent was hosted by the Governor General at Rideau Hall on May 13, 2011. The GGPAAs are Canada's most prestigious honour in the performing arts, with a long and successful history. The awards celebrate, recognize and inspire the arts community across the country, and Enbridge is proud to support the nurturing of Canadian talent.

*25th Annual Enbridge playRites Festival of New Canadian Plays* – Enbridge was the Title Sponsor of the 25th Annual Enbridge playRites Festival of New Canadian Plays. For 25 years, the Enbridge playRites Festival of New Canadian Plays has been an incubator and showcase for new work. Many of the plays produced during the festival go on to be produced around the world. The festival also offers readings, special events, awards and a platform for emerging artists and student work.

*National Arts Centre's Prairie Scene* – Enbridge was proud to be the Major Partner of Prairie Scene, the fifth National Arts Centre's series of Scene Festivals. Prairie Scene is a diverse, multi-disciplinary arts festival featuring 500 of the best established and emerging artists from Saskatchewan and Manitoba. From April 26-May 8, 2011, the festival presented 80 different events in music, theatre, dance, visual and media arts, literature, film and culinary arts in more than 30 venues in Ottawa-Gatineau.

### **Liquids Pipelines Canada**

*Art Gallery of Alberta (AGA)* – Enbridge Pipelines invested in a new three-year initiative titled *Enbridge Presents: Contemporary and Modern Art* at the Art Gallery of Alberta, helping the AGA to secure prestigious exhibits, including the internationally touring exhibition *ANDY WARHOL: Manufactured*. Support of this initiative mirrors our recognition and understanding of the importance of cultural energy in the communities in which we operate.

*Enbridge Conductor in Residence Program* – Since 2010, Enbridge has supported the Enbridge Resident Conductor program of the Edmonton Symphony Orchestra. The program addresses the needs of the orchestral music industry to develop artistic leaders who are equipped with the essential musical, administrative and leadership qualities necessary to lead an orchestra in the 21st century. An effective conductor and music director is one who can master the music, and adopt an appreciation and understanding of the delicate balance between art and business, and their responsibility to audiences and the community at large. This program helps foster sustainability in the arts, ensuring



that the time-honoured tradition of mentorship is afforded to emerging leaders at the highest professional level.

*Nextfest* – In Edmonton, Enbridge sponsors the Theatre Network's Nextfest, a multi-disciplinary emerging- artists festival dedicated to the development and exposure of professional artists at the beginnings of their careers. Specifically, we fund the Enbridge Emerging Artist Awards and the Enbridge High School Mentorship Program, which is designed to provide a practical educational experience to high school drama students through a mentoring relationship so they receive guidance and develop the skills necessary to meet their full potential. These emerging artists then actively learn and engage in a professional festival setting, getting the chance to curate and perform on the main stage.

*The Works International Visual Arts Society* – Enbridge continued as a Sponsoring Partner of The Works International Visual Arts Society education initiatives, specifically: The Works to Work Summer Internship, Certification, Education, and Scholarship Program; and The Places, Art & Design in Public Places Internship Program. The Works to Work programs offer both theoretical and hands-on learning to participants during full-time, paid internships with The Works Art & Design Festival. Participants benefit from working with experienced arts presenters, as well as world-class artists, designers, curators and educators. To support on-going skill development, Works to Work allows for participants to return every summer for three years to progress from Assistant to Coordinator to a Supervisor level. Once participants have completed the program, their skills are transferable to galleries, museums, educational institutions and other non-profit charitable organizations in Edmonton and countrywide.

#### **Liquids Pipelines U.S.**

*Roosevelt Park Zoo* – The Roosevelt Park Zoo in Minot, North Dakota, recently received its most significant contribution yet in support of the zoo's new entrance building when Enbridge Pipelines (North Dakota) LLC presented the zoo with a donation of \$25,000 for the facility in 2011. The \$25,000 contribution is a joint effort of Enbridge Pipelines (North Dakota) LLC and Enbridge US.

*Duluth Air Show* – Enbridge continued its support of the semi-annual Duluth Air Show in 2012. A US\$10,000 contribution sponsored the Canadian Forces Snowbirds demonstration and performance.

#### **Gas Transportation / Enbridge Energy Partners**

*Alley Theatre* – Enbridge supported Houston's Alley Theatre for the ninth consecutive season by serving as the Lead Sponsor of one production during the 2011-2012 season – *Noises Off*. Enbridge also sponsored the Alley Theatre Playwriting 360° Showcase, which presents plays written by young adults from schools who participate in the program. The program introduces students to dramatic writing as a creative outlet.

*Houston Public Radio* – For the ninth consecutive year, Enbridge served as an underwriter of local programming on 88.7 KUHF, Houston Public Radio hosted by the University of Houston.

#### **Enbridge Gas Distribution (EGD)**

*Shaw Festival Theatre* – For the past decade, Enbridge Gas Distribution has been a proud supporter of the Shaw Festival Theatre, which is one of Canada's leading cultural organizations. Since 2002, Enbridge has donated over \$100,000 to the Shaw Festival Theatre, a registered charity and a prominent tourism driver for southern Ontario, generating over \$100 million in local activity annually.

## **SCHOOL PLUS**

We believe in investing in the leaders of tomorrow by supporting enrichment programs and extra-curricular activities for Canadian Aboriginal school children located near our major pipeline routes and facilities. Through our School Plus Program, we provide Canadian Aboriginal youth in grades K-12 with enrichment programs to engage them in the education process, encouraging them to remain in school. We value educational opportunities that will ultimately contribute to the growth and learning of Canadian Aboriginal school children.

For a full report on our recent School Plus investments and other major Aboriginal community investment initiatives, please see 'Recent Initiatives and Significant Events' in the Aboriginal & Native Americans section of this SO1 chapter.

## **SAFE COMMUNITY**

With operations and employees in communities across Canada and the U.S., we believe it is essential to be involved in those communities to help make them healthy, vibrant and ultimately, better places to live. The safety of the communities in which we operate and the people who live and work along our pipeline system remains our highest priority, which is why we are proud to support the organizations that help to keep our communities safe.

Through our Safe Community program, we provide grants to local first responders in areas of Enbridge operations to help with equipment, training, public awareness and volunteer recognition. Additionally, we support safety initiatives that are important in the communities where we operate.

Following are reports about some of our key Safe Community initiatives in 2011.

### **Liquids Pipelines Canada**

Enbridge Pipelines presented a \$150,000 cheque to the Regional Municipality of Wood Buffalo in Alberta. The Municipality used the donation to purchase resources needed to deliver emergency services and to support the delivery of emergency preparedness programs to residents in the Municipality's communities of Fort Chipewyan, Anzac, Fort McKay, Conklin and Saprae Creek, reinforcing publicly that the safety of the communities in which we operate, the lands our pipelines traverse and the people who live and work along our system is our highest priority.

### **Gas Transportation / Enbridge Energy Partners**

Enbridge awarded a total of \$288,701 to more than 315 emergency first responder organizations in areas of our U.S. operations. Eligible organizations include police, fire and EMS departments.

### **Enbridge Gas Distribution (EGD)**

*Project Zero* – EGD has developed a strong relationship with the Fire Marshal's Public Fire Safety Council, which addresses public safety issues and distributes information to local fire departments in Ontario that in turn reach out to their respective communities. As a members of the Council, EGD is a strong supporter of fire- and life-safety education and is proud to provide funding support to programs like Project Zero, which was launched by Toronto Fire Services in 2009 and now includes a total of 21 Ontario municipalities. Project Zero's goal is to reduce residential fire and carbon monoxide deaths to zero. EGD's donation in 2011 will allow more than 2,700 combination smoke and carbon monoxide alarms to be installed in Ontario homes in Collingwood, Grimsby, Kemptville, Mississauga, Newmarket, Pembroke, Peterborough, Smiths Falls, St. Catharines, Vaughan and Welland. The alarms are distributed to homes in neighbourhoods where the number of residential fires and fire-related deaths and injuries have been higher than average. Enbridge's support of Project Zero builds on its ongoing efforts to educate customers about carbon monoxide safety.

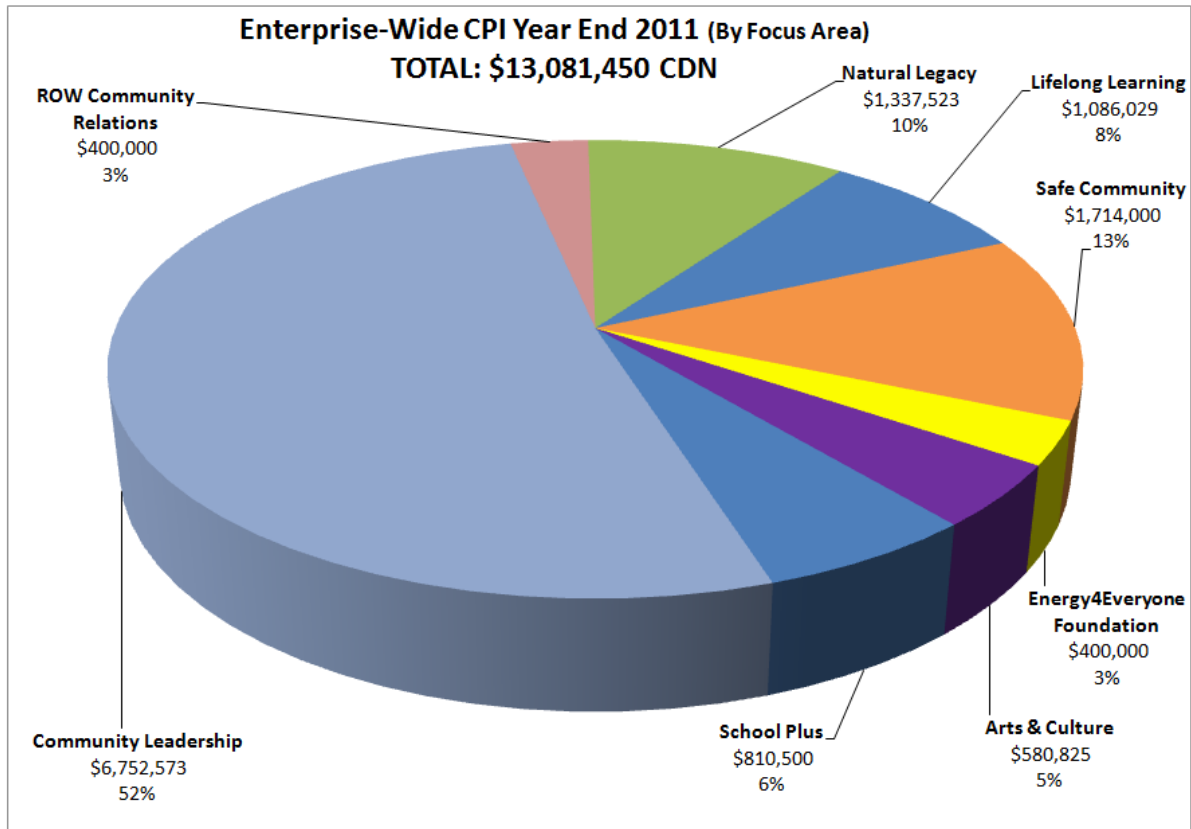
## ENTERPRISE-WIDE COMMUNITY PARTNERSHIPS AND INVESTMENTS (CPI) SPENDING

YEAR-END 2011 – ACTUAL

CAD: \$11,643,943

USD: \$1,437,507

Total: CAD \$13,081,450



<sup>1</sup> For information on the energy4everyone Foundation, which supports the delivery of affordable, reliable and sustainable energy to communities that do not have it, please see the GRI Performance Indicator report 'EC8' in the Economic Performance section of this 2012 CSR Report.

## CORRUPTION

### SO2

Percentage and total number of business units analyzed for risks related to corruption.

Enbridge analyzes each of its business units annually for potential corruption risks. The analysis tools the company uses include the general control evaluation procedures that were established to ensure that Enbridge meets the requirements of the Sarbanes-Oxley Act (SOX) and its own [Statement on Business Conduct](#). Each employee must review and confirm their compliance with the Statement on Business Conduct annually.

### **SO3**

*Percentage of employees trained in organization's anti-corruption policies and procedures.*

As a condition of employment, all new employees are required to read and provide written acknowledgement of their agreement to follow Enbridge's [Statement on Business Conduct](#). Thereafter, all employees must certify their compliance with the Statement on Business Conduct each year. The annual certification process for each employee includes the completion of mandatory Statement on Business Conduct refresher training, which is coordinated and rolled-out each January on an enterprise-wide basis.

The Statement of Business Conduct applies to Enbridge Inc. and to each of its subsidiaries or controlled entities. It emphasizes Enbridge's commitment to specific standards of conduct expected of each of its directors, officers, employees, consultants and contractors in all of the countries where Enbridge does business.

### **SO4**

*Actions taken in response to incidents of corruption.*

Enbridge's [Statement on Business Conduct](#) and [Whistle Blower Procedures](#) outline the procedures Enbridge would follow in response to allegations of corruption.

Strict adherence to the Statement on Business Conduct and all other Enbridge policies is mandatory for all Enbridge employees. Failure to comply may result in disciplinary action up to and including termination.

Enbridge management is not aware of any incidents of corruption during 2011.

## **PUBLIC POLICY**

### **SO5**

*Public policy positions and participation in public policy development and lobbying.*

Enbridge supports the democratic process in the jurisdictions in which the company conducts business. It does so in accordance with the letter and spirit of all applicable laws of the countries in which it operates. As such, all of Enbridge's activities pertaining to public policy development, lobbying and political donations comply with the country, provincial and state laws governing those activities, as well as with the company's [Statement on Business Conduct](#).

Enbridge does not have a formal policy on public policy development or lobbying, but its Statement on Business Conduct addresses political contributions by stating 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 Canada, the *Federal Accountability Act* prohibits corporate political donations at the federal level. Laws governing corporate political donations to provincial entities vary by province. Enbridge strictly adheres to them.

Although U.S. federal law and the laws of most states prohibit corporate political donations, companies that establish political action committees (PACs) may contribute amounts up to the limits set by the governments in whose jurisdiction they lie. However, Enbridge does not have a federal or state PAC and does not make corporate political donations, even in those states where corporate contributions are allowed.

### **SO6**

*Total value of financial and in-kind contributions to political parties, politicians and related institutions by country.*

In 2011, Enbridge contributed approximately \$91,000 to provincial political parties in Canada. It did not contribute to federal political parties or politicians in Canada.

Enbridge did not make any contributions to political parties, politicians or related institutions in the U.S.

## **ANTI-COMPETITIVE BEHAVIOUR**

### **SO7**

*Total number of legal actions for anti-competitive behaviour, anti-trust and monopoly practices and their outcomes.*

In 2011, Enbridge was not subject to any legal actions for anti-competitive behaviour, or for anti-trust or monopoly practices.

Regarding competition and anti-trust legislation, Enbridge's [Statement on Business Conduct](#) states that:

- Enbridge and its employees must comply with all applicable Canadian, U.S. or other foreign competition and antitrust legislation.
- Behaviour which is prohibited under such legislation includes activities such as agreements with competitors to allocate markets or customers, price fixing or agreements to control prices, the boycotting of certain suppliers or customers, bid-rigging, misleading advertising, price discrimination, predatory pricing, price maintenance, refusal to deal, exclusive dealing, tied selling, delivered pricing and the abuse of dominant position.
- Situations constituting potential breach of such legislation or circumstances requiring direction should be immediately reported to the employee's supervisor or the Law Department.

## **COMPLIANCE**

### **SO8**

*Monetary value of significant fines and total number of non-monetary sanctions for non-compliance with laws and regulations.*

Enbridge did not receive any fines in 2011 for anti-competitive behaviour.

Enbridge did not receive any non-monetary sanctions for non-compliance with laws and regulations pertaining to anti-competitive behaviour in 2011.

## **SOCIAL PERFORMANCE: PRODUCT RESPONSIBILITY**

### **GOALS AND PERFORMANCE**

Enbridge is committed to excellence in implementing product responsibility standards that not only comply with legislated requirements, but also respond to the social, economic and environmental expectations of communities, customers, shareholders, government and the public.

This commitment is an integral part of all planning and operations initiatives carried out corporately, as well as those carried out by Enbridge's business units.

Enbridge strives for zero incidents and injuries and believes that prevention of incidents and injuries benefits everyone and delivers increased value to our stakeholders.

## **PRODUCT RESPONSIBILITY PERFORMANCE INDICATORS**

### **CUSTOMER HEALTH AND SAFETY**

#### **PR1**

*Life cycle stages in which health and safety impacts of products and services are assessed for improvement, and percentage of significant products and services categories subject to such procedures.*

Enbridge is a transporter of energy, primarily in the form of liquid petroleum products and natural gas. Enbridge does not produce these commodities, but transports them from source to end users.

While Enbridge does not specifically conduct life-cycle reviews of the products that it transports through its systems, it does thoroughly review its systems to ensure that the products it transports are delivered in a manner that is safe and reliable. These reviews pertain to the design, construction, operation and maintenance of the transport systems. They are conducted on all of Enbridge's systems.

Enbridge Liquids Pipelines implements a New Service Request and New Commodity Approval process prior to movement of new products on its pipeline system. These processes require shippers to provide product quality information and material safety data sheets when requesting to ship a product on the pipeline for the first time. These processes further set out the requirements for ongoing periodic testing of all products once approved for transport on the pipeline. Enbridge also requires shippers to provide updated material safety data sheets every three years in accordance with regulations. This information is used to assess the health and safety impacts of any new products being introduced to the pipeline system and any changes in characteristics that may impact health and safety during the product lifecycle.

In addition to these processes, Enbridge Liquids Pipelines has an industrial hygiene program that sets out requirements for regular air sampling and monitoring of its operations and maintenance activities to assess worker exposures to airborne contaminants and potential impacts to worker health and safety. This information is used to validate the effectiveness of controls utilized to protect workers, including engineering controls, administrative controls and personal protective equipment.

For details on Enbridge's pipeline and system integrity practices and performance, please see the section "Environmental Performance – GRI Performance Indicators – Products and Services – EN26 and EN27" of this report.

Enbridge is also expanding its interests in renewable and alternative energy technologies, including wind and solar energy, geothermal, waste heat recovery, hybrid fuel cells, and carbon dioxide sequestration. Enbridge takes its responsibility as an energy producer very seriously. We pursue this commitment by:

- managing all of our operations and new facilities with respect for our neighbours and their land;
- consulting with the individuals who live and work in the vicinity of these operations, as well as those who may become our neighbours as our renewable energy portfolio grows;
- maintaining our projects to the highest possible standards; and
- keeping neighbours, community residents and officials informed about our activities.

Enbridge is committed to protecting the public and the environment, and we build safety into every step of our operations.

## **PR2**

*Total number of incidents of non-compliance with regulations and voluntary codes concerning health and safety impacts of products and services during their life cycle, by type of outcomes.*

Within the Enbridge companies in 2011, there were no non-compliance incidents concerning the health and safety impacts of Enbridge's products and services.

For information on regulatory notifications, please see the section "Environmental Performance – GRI Performance Indicators – Compliance – EN28" of this report.

## **PRODUCT AND SERVICE LABELING**

### **PR3**

*Type of product and service information required by procedures, and percentage of significant products and services subject to such information requirements.*

Enbridge's Liquids Pipelines and Gas Transportation business units, as well as Enbridge Gas Distribution (EGD), are required to indicate with pipeline location markers including labels with the company name and contact information, any pipeline that is situated within a right-of-way. Although Enbridge is not required to label pipelines that run through streets or properties, it is illegal to excavate within streets or properties without obtaining "locates," which provide information on underground pipelines, etc. In Ontario, for example, home and property owners and contractors are responsible for obtaining "locates" before they dig and can obtain them by calling Ontario One Call. Ontario One Call is a call centre with which both EGD and Enbridge Liquids Pipelines contract to handle such inquiries within the province of Ontario.

In addition, the Workplace Hazardous Materials Information System (WHMIS) requires EGD to provide Material Safety Data Sheet (MSDS) information to all of its natural gas customers. EGD maintains updated French and English copies of the sheet pertaining to natural gas on its website. EGD also emails copies of the sheet to customers on a scheduled frequency basis. Liquids Pipelines also maintains MSDSs that are representative of the various products it ships on the pipeline system and makes these MSDSs available to employees, contractors working on the

pipeline system, and also to the public upon request.

Enbridge's right-of-way at its wind farms includes the footprint of the wind turbines themselves, as well as buried high-voltage cables located anywhere within the leased area. The right-of-way at Enbridge's solar farms is contained within the fenced solar farm itself and on Enbridge property outside the fence.

Even though buried high-voltage cables are identified above-ground by power-line markers, the marker may not necessarily be directly over the power line. To protect people and ensure their safety, federal and provincial/state laws require anyone planning to excavate near the right-of-way to call their local toll-free one-call number in advance of any excavation.

Enbridge makes landowners and the general public in the vicinity of its wind farms aware that buried high-voltage power lines are located both inside and outside the perimeter of the wind farms. (At Enbridge's solar farms, buried high-voltage power lines are contained only within the fenced perimeter of the solar farm. There are no buried power lines outside the fenced perimeter.)

Also integral to Enbridge's wind and solar farms are high-voltage sub-stations, which are located on leased or Enbridge-owned land near the farms. These sub-stations are fenced and no public entry is permitted.

#### ***PR4***

*Total number of incidents of non-compliance with regulations and voluntary codes concerning product and service information and labeling, by type of outcomes.*

Enbridge's Liquids Pipelines, Gas Transportation, and Gas Distribution and Services businesses were in full compliance with regulations pertaining to product and service information or labeling in 2011.

#### ***PR5***

*Practices related to customer satisfaction, including results of surveys measuring customer satisfaction.*

In 2011, Enbridge Gas Distribution (EGD) responded to just under three million customer inquiries and issued approximately 24 million residential utility bills.

Customer service and satisfaction are important to EGD and, as a result, measurement of these areas is important. EGD uses a third-party market research supplier to conduct monthly telephone interviews with residential customers. EGD uses the study to monitor customers' expectations about, perceptions of and satisfaction with EGD based on various interaction points. Customers are said to be satisfied if they responded excellent or very good (top-2 boxes), when asked three key satisfaction questions on a seven-point scale ranging from excellent to poor. As part of the study, benchmarking questions compare EGD to local telephone companies, electric companies and natural gas marketers in the EGD franchise area. During 2011, EGD led in the five areas measured, including overall value, image quality, choose again, overall billing and customer communication quality.

In 2005, EGD instituted an Office of the Ombudsman to resolve customer issues that the call centre was unable to resolve. In 2011, 8,891 issues were escalated to the Customer Ombudsman's office.

EGD uses a variety of information, including all of the sources of information outlined above, to identify opportunities to improve customer satisfaction.

## ***MARKETING COMMUNICATIONS***

#### ***PR6***

*Programs for adherence to laws, standards and voluntary codes related to marketing communications, including advertising, promotion, and sponsorship.*

A thorough process is in place to review marketing communications pieces prior to distribution. This process includes review by Enbridge's legal department.

## **PR7**

*Total number of incidents of non-compliance with regulations and voluntary codes concerning marketing communications, including advertising, promotion and sponsorship by type of outcomes.*

In 2011, Enbridge complied with applicable laws, regulations and voluntary codes concerning marketing communications.

## **CUSTOMER PRIVACY**

### **PR8**

*Total number of substantiated complaints regarding breaches of customer privacy and losses of customer data.*

In 2011, one minor incident of misdirected customer information was reported to the Privacy Office of Enbridge Gas Distribution (EGD) and was resolved. No complaints were referred to the Privacy Commissioner in 2011.

## **COMPLIANCE**

### **PR9**

*Monetary value of significant fines for non-compliance with laws and regulations concerning the provision and use of products and services.*

Enbridge Gas Distribution (EGD) was charged under both the Ontario Technical Standards and Safety Act (TSSA) and the Ontario Occupational Health and Safety Act (OHSA) in connection with an explosion that occurred in April 2003 on Bloor Street West in Toronto. In December 2011, EGD pleaded guilty before the Ontario Court of Justice to one charge under the OHSA and one charge under the TSSA. The Court imposed a fine of \$350,000 in connection with each charge. With the application of a required 25 per cent Victim Fine Surcharge, the total amount payable by EGD was \$875,000.

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