



Addendum to Enbridge's 2013 Corporate Social Responsibility Report (with a focus on 2013 data)

Client and Industry Collaboration Performance Data Sheet

This performance data sheet relates to the following Global Reporting Initiative (GRI G3.1) Standard Disclosure:

- Profile – Strategy and Analysis

Context

We are committed to working with client and industry colleagues to reduce our collective environmental impact, improve safety and develop innovative technology.

We are a business that connects the upstream and downstream components in a number of major energy systems for oil and gas in North America. Our role as a connector means we have a unique opportunity to collaborate with the various components of our value chain on the role that CSR practices and market-based innovation can play in reducing carbon emissions and improving other aspects of environmental performance.

We are taking a leadership position in the pipeline industry in both Canada and the U.S. Through sponsorship and technical leadership of joint industry research projects, we have actively pursued improvements to both pipeline in-line inspection technologies and engineering models that characterize the pipe condition. This work has provided our industry with improved methods of managing mechanical damage to pipelines. We're also an active participant in numerous industry technical committees and working groups— improving codes and standards; enhancing the current body of knowledge about pipelines; and advocating for areas of focus for research and development. These efforts can further promote a “zero spill” mindset, not only within Enbridge, but also in the greater pipeline community.

Management Approach and Background

Addressing Energy and Climate Change Issues

We recognize that climate change is a critical global issue and believe that meaningful greenhouse gas (GHG) reductions require governments to collaborate with industry and consumers to establish clear, realistic GHG emissions objectives, public policies and effective regulations.

Our energy and climate change strategies focus on reducing GHG emissions from existing operations, designing new facilities with a view to reducing emissions, and developing new renewable and alternative energy sources.

Under our [Climate Change Policy](#), we are committed to reducing our consumption of energy and our GHG emissions. We are also committed to working, both within our individual business units and at a broader collaborative level with external stakeholders and decision makers, to advance climate solutions.

In 2013, we created the role of Chief Sustainability Officer (CSO) to provide oversight at an enterprise-wide level on all of our CSR strategies and activities. Our CSO has a mandate to broaden the company's engagement on the role Enbridge can play in addressing energy and climate change issues.

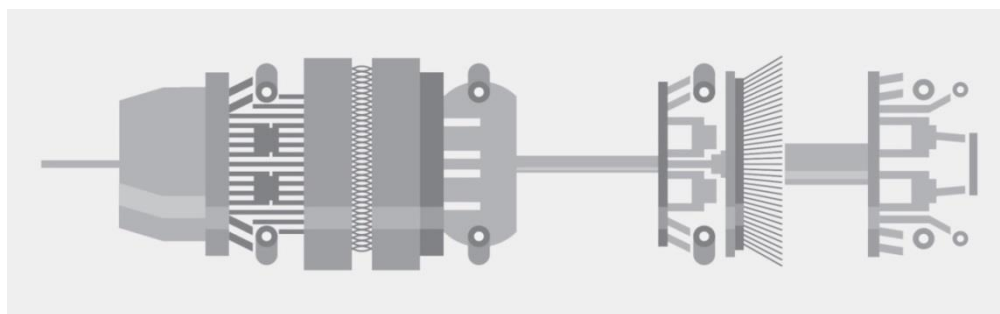
Asset Integrity and Reliability

We have adopted the targets of zero incidents and zero injuries. Our target of preventing all spills, leaks and releases from our energy transportation and distribution systems is underpinned by 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 that end, we invest heavily every year in asset integrity and maintenance. We also build in rigorous processes to ensure the integrity of our assets at every stage.

Pipeline safety and reliability begins with prevention. For this reason, we monitor and mitigate conditions that can cause pipeline failures. We do so through numerous processes, including inspections on our systems using sophisticated inline inspection (ILI) tools. These tools, which incorporate medical imaging technology, enable us to examine our assets on a millimetre-by-millimetre basis so that we can identify and act on features that require closer attention.

Through sponsorship and technical leadership of joint industry research projects, we have improved both ILI technologies and the engineering models that characterize the pipe condition. Our work has given the industry improved methods of managing mechanical damage to pipelines.

Throughout the year, we send sensitive ILI tools through our Canada-U.S. pipeline system to collect information about the condition of the pipe. In 2013, we employed the tools on 211 runs to inspect more than 33,000 kilometres—about two-thirds—of the pipeline network.



In 2013, our Liquids Pipelines business unit (LP) participated in, sponsored or led approximately 190 research and development (R&D) projects—including four joint-industry projects—in the areas of leak detection and pipeline integrity.

The projects that focused on leak detection involved investments of almost \$6.3 million, while those focused on pipeline integrity involved investments of more than \$3 million. Many of the other projects fell under our involvement with the Pipeline Research Council International (PRCI), in which LP invests approximately \$300,000 each year.

LP selects R&D projects based on how well they could improve our ability to detect and respond to spills and leaks, how well they could help us prevent, monitor or mitigate integrity threats such as corrosion, cracking, and deformation (e.g. dents or strain in the pipe), and how well they could be adopted by other business units, including Gas Transportation (GT), Gas Distribution (GD) and Enbridge Gas Distribution (EGD). The projects pertain to areas as varied as aerial surveillance, fibre optics, in-line leak detection tools, on-water leak detection technologies, pipeline coatings, corrosion prevention, defect assessment, reliability-based design, facilities integrity and ILI tool development.

LP also works continually with ILI vendors to improve existing inspection technologies, and to investigate opportunities to apply pipeline technologies that are used in other industries.

In the summer of 2012, our Gas Transportation business unit (GT) was at the centre of a major field demonstration at Mineral Wells, Texas, showcasing some of the latest technology in leak detection. In addition to vendors, participants included experts from Petroleum Research Council International (PRCI), industry, GT and other Enbridge business units. Testing involved controlled, simulated gas leaks along a stretch of GT's gas transmission pipeline network. One of the vendor companies used laser technology to detect gas emissions, while another used reflected refracted sunlight, measuring changes in the quality of light to detect leaks. Yet another used a gas-sniffing device to take air samples to detect traces of gas indicating a possible leak.

In August 2012, Enbridge Gas Distribution (EGD) participated in a NYSEARCH-led industry evaluation and field trial of a cavity ring-down spectroscopy (CRDS) analyzer. This new technology measures the levels of methane gas in a sample based on laser light absorption, promising to be a highly sensitive and specific detection method for natural gas leaks.

EGD is also leading the evaluation of fibre optic damage prevention technologies. In 2014, EGD will be running a pilot along a section of NPS 24 high pressure reinforcement pipeline in the Ottawa region. The project will test the capability of the system to detect and alarm from threats of manual and mechanical digging, well in advance of any damage, while keeping false alarms to a minimum. EGD has partnered with other North American utilities and energy partners on this innovative project, which will compare the capabilities of three different fibre-optic monitoring systems under identical test conditions, to determine the capabilities, strengths and weakness of each system. The goal will be to deploy the most effective system or systems to protect critical pipelines from third-party damages.

Investing in Innovative Technology

We invest in companies and projects with emerging technologies that will help us contribute to a cleaner energy future.

We're investing in a wide range of alternative energy projects. We currently have equity and project investments in companies that are developing run-of-river hydro, electricity generation from waste energy sources, the transportation of compressed natural gas by sea, large-scale electricity storage, and next-generation solar technology.

In 2013, we invested in:

- Temporal Power Ltd., a developer and manufacturer of electrical energy storage systems (please see below for more information)
- On-Ramp Wireless Inc., a developer of wireless solutions that enable us to better connect with and monitor assets, such as transmission pipelines, in a more economical and reliable manner than conventional wireless technologies currently allow
- Smart Pipe Company Inc., the developer of a high-pressure, self-monitoring internal pipeline replacement system, which features an embedded fibre optic inspection system that allows the pipeline operator to continually monitor and instantly detect and locate possible leaks, abnormal temperature changes, third-party impacts or ground movement.

For more information on our wide range of innovation investments, please see the [Innovation data sheet](#) on www.csr.enbridge.com.

For More Information

Please see the following performance data sheets on www.csr.enbridge.com: [Asset Integrity and Reliability](#); [Spills, Leaks and Releases](#); [Emergency Preparedness and Response](#); and [Innovation](#). Please also see Enbridge's December 2013 [Operational Reliability Review](#) and Enbridge's [2013 Annual Report](#).