

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

Renewable Energy Performance Data Sheet

This performance data sheet relates to the following Global Reporting Initiative (GRI G3.1) Environmental Performance Indicator:

 EN26 - Initiatives to mitigate environmental impacts of products and services, and extent of impact mitigation

Context

We are actively diversifying our business by investing in alternative and renewable energy technologies that support the transition to a low-carbon economy. Since 2002, we have invested more than \$3 billion in wind, solar, geothermal, waste heat recovery, and a host of other alternative energy technology projects that, together, have the capacity to generate more than 1,800 megawatts of emissions-free energy and result in the avoidance of approximately 1.6 million tonnes of GHG emissions each year. We plan to add to this capacity by 2016.

These projects also contribute to Enbridge's Neutral Footprint commitment to generate a kilowatt hour of renewable energy for every additional kilowatt hour of additional electricity that the company's expansion projects consume.

In addition, as we generate more renewable energy, we are participating in efforts to find new ways to store it particularly during non-peak demand hours—which is why we invest in technologies that support large-scale electricity storage. By investing in these technologies, we are helping to advance society's use of intermittent energy sources such as wind and solar.

Enbridge's Renewable and Alternative Energy Investments—Total Capacity by Type



Enbridge is Canada's largest solar and second largest wind power producer, and in the United States, we are a growing renewable energy player with investments in wind, solar and geothermal.

2013 Key Performance Areas

#1. Invest in renewable and alternative energy technologies, with the aim of doubling Enbridge's clean energy capacity in the five years from 2011 to 2016

In Quebec, the 308-megawatt (MW) Lac Alfred Windfarm, in which we hold a 50 per cent interest, reached commercial operation in two stages in January and August 2013.

The 153-MW Massif du Sud Windfarm in Quebec, in which we hold a 50 per cent interest, began delivering emissions-free energy to the Quebec grid in January 2013.

In April 2013, we secured a 50 per cent interest in the development of the 300-MW Blackspring Ridge Windfarm in Alberta, which will be the largest wind project in western Canada when operational, which we expect to occur in midsummer 2014.

In July 2013, we acquired a 50 per cent interest in the 82-MW Saint-Robert-Bellarmin Windfarm in Quebec.

#2. Invest in energy innovation

In 2013, we made an equity investment in Temporal Power, an Ontario-based developer and manufacturer of electrical energy storage systems.

Management Approach and Background

Enbridge's Renewable and Alternative Energy Investments—Overview

Our renewable and alternative energy portfolio is diversified and growing. Our interests in wind, solar, geothermal and waste heat recovery, as well as a fuel cell/turbo-expander, have a total generating capacity of more than 1,800 megawatts, enough to meet the needs of approximately 600,000 homes. Our renewable and alternative energy investments also result in the avoidance of approximately 1.6 million tonnes of GHG emissions each year.

Today we are Canada's largest solar and second largest wind power producer; and in the United States, we are a growing renewable energy player with investments in wind, solar and geothermal.

In coming years, we will grow our power generation capacity in a measured fashion with the objective of approximately doubling capacity by 2017. We will achieve this both by continuing to invest in renewable and alternative energy projects and by investing in technologies and businesses that are strategically aligned with Enbridge's business interests. For example, we are looking at adding natural gas-fired electricity generation to our business mix. North Americans want clean and affordable energy options, and we believe natural gas is a fuel of choice due to its low-carbon intensity. This is another way we can help society transition to a lower-carbon intensive economy, while at the same time lay the foundation for a more diversified asset base and continued growth and prosperity for the company.

The following table provides an overview of our current renewable and alternative energy projects that are or will soon be operational.

ENBRIDGE'S RENEWABLE ENERGY PROJECTS

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

Project Name	Туре	Total 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
Cruickshank	wind	8 MW	Enbridge Income Fund*	Bruce County, Ontario	2009
Underwood	wind	182 MW	Enbridge Income Fund*	Bruce County, Ontario	2009
Talbot	wind	99 MW	Enbridge Income Fund*	Chatham, Ontario 2010	
Greenwich	wind	99 MW	Enbridge Income Fund*	Dorian, Ontario	2011
Cedar Point	wind	250 MW	Enbridge Inc.	Limon, Colorado 2011	
Lac Alfred	wind	308 MW	Enbridge Inc. (50%)	Amqui, Quebec	2013

Saint-Robert-Bellarmin	wind	82 MW	Enbridge Inc. (50%)	Saint-Robert-Bellarmin,	
				Quebec	2012
Massif du Sud	wind	153 MW	Enbridge Inc. (50%)	Chaudière-Appalaches	
				Region, Quebec	2013
Blackspring Ridge	wind	300 MW	Enbridge Inc. (50%)	Vulcan County, Alberta	2014
Keechi Wind Project	wind	110 MW	Enbridge Inc. (100%)	Jack County, Texas	2015
Sarnia Solar Project	solar	80 MW	Enbridge Income Fund*	Sarnia, Ontario	2009 (20 MW)
					2010 (60 MW)
Tilbury Solar Project	solar	5 MW	Enbridge Income Fund*	Tilbury, Ontario	2010
Amherstburg II Solar Project	solar	15 MW	Enbridge Income Fund*	Amherstburg, Ontario	2011
Silver State North Solar Project	solar	50 MW	Enbridge Inc.	Primm, Nevada	2012
Neal Hot Springs	geothermal	23 MW	Enbridge Inc. (40%)	Malheur County, Oregon	2012

ENBRIDGE'S ALTERNATIVE ENERGY PROJECTS

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

Project Name	Туре	Total 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	10 MW	Enbridge Income Fund (50%)*	Alberta	2014
Fuel Cell/Turbo-expander	fuel cell	2 MW	Enbridge Inc.	Toronto, Ontario 2008	

*Through our investment in Enbridge Income Fund and our common and preferred interest in Enbridge Income Fund, Enbridge Inc. retains a 67.8 per cent interest in the Fund.

Wind

Enbridge has interests in 13 wind farms—in Quebec, Ontario, Saskatchewan, Alberta, Colorado and Texas—with a combined total capacity of 1,662 MW of electricity. Approximately one-third of that total is now in Quebec, which is the largest wind power market in Canada.

In January 2014, we announced Enbridge will invest approximately US\$0.2 billion in the 110-MW Keechi Wind Project in Texas. Construction commenced in December 2013 and the project is expected to reach commissioning in 2015. Texas is the leader in wind energy generation in the United States both in terms of installed capacity and number of turbines, and this investment represents a natural extension for Enbridge's growing U.S. renewable energy portfolio. Wind-generated electricity is the fastest-growing sector of electricity generation in North America, as substantial technological advances, cost reductions, renewable portfolio standards and availability of long-term power purchase agreements have enabled wind projects to become economically attractive investments. We expect future wind opportunities to come through the securement of construction-ready or operational projects, expansion of our existing operations and development of new greenfield projects throughout North America.

Solar

Our four solar energy projects, in Ontario and Nevada, have the capacity to generate 150 MW of electricity. Our 80-MW Sarnia Solar facility in Ontario is one of the largest photovoltaic solar energy facilities in North America. We believe that solar energy continues to offer meaningful opportunities for long-term growth.



Geothermal

Geothermal power is recovered from the heat of the earth's interior. Enbridge owns a 40% interest in the 23-MW Neal Hot Springs Geothermal Project in Oregon that is delivering electricity to the Idaho Power grid under a 25-year power purchase agreement.

Investments in Energy Innovation

In addition to investing in renewable energy projects, we are investing in a wide range of alternative energy projects and in new technologies and businesses, including: renewable energy storage solutions (please see next page for more information); next-generation solar technology; waste heat recovery; run-of-river power generation; electricity generation from waste energy sources; transportation of compressed natural gas by sea; advanced pipe technology; leak prevention and detection technologies; wireless sensors for hydrocarbon storage tanks; wireless solutions for energy automation and machine-to-machine communications; intelligent video solutions for industrial

video surveillance applications; oil sands extraction and processing improvements; and carbon dioxide storage. For more information on these investments, please see the Innovation section of our <u>2013 CSR Report</u>.

Innovation—Energy Storage Solutions

As owners and operators of four solar projects and 13 wind farms, we understand that, in order for renewable energy to become a larger part of the electricity system, we need to deal with the intermittent nature of the source. To that end, we're investing in a portfolio of electricity storage technologies that will support large-scale electricity storage.

Hydrogenics: In 2012, we entered into a partnership with Hydrogenics to develop large-scale storage of renewable electricity. The process involves using renewable electricity to run an electrolyzer that separates the hydrogen from the oxygen in water, then storing the hydrogen in existing natural gas pipelines. These four steps illustrate the process:



Excess renewable energy is then stored and used when and where it is most needed.

Temporal Power: In 2013, Enbridge invested in Temporal Power, a manufacturer of energy storage systems called flywheels, which store electrical energy as kinetic energy through their continuous high-speed rotation.



Once the energy is stored as kinetic energy, the power can be released through the electric motor back into the grid, keeping the grid balanced and enabling it to accept intermittent energy sources like wind and solar.

For More Information

For more information on our investments in energy innovation, please see the <u>Innovation performance data sheet</u> on <u>www.csr.enbridge.com</u>. For the current status of our Neutral Footprint progress, please see our <u>Neutral Footprint</u> <u>dashboard</u>. For information on Enbridge's response to climate change, please also see the following performance data sheets on <u>www.csr.enbridge.com</u>: <u>Energy and Climate Change</u>; <u>Air Emissions, Effluents and Waste</u>; and <u>Demand-Side Management</u>.