



A compilation of the year's key transmission pipeline industry performance results, including safety statistics, economic data and key environmental initiatives, reflecting our initiatives to continuously improve safety, lessen environmental impacts and achieve operational excellence.

Canada energy use by source



- 30.6% – Oil
- 27.3% – Natural Gas
- 26.6% – Hydroelectricity
- 7.0% – Nuclear
- 5.7% – Coal
- 2.8% – Renewables

Source: BP Statistical Review of World Energy – June 2017

Our goal is getting to zero incidents

99.999 per cent of all oil and gas products transported through CEPA member pipelines reach their markets safely. We are striving to achieve 100 per cent. Through CEPA, members work together to continuously improve in key areas to reach our goal of zero incidents. Safety, environmental protection and emergency response are, and always have been, our top priorities.

Transmission pipelines are critical energy infrastructure, delivering the energy Canadians use every day. We will fulfill our essential role safely, reliably and efficiently. Canadians and the customers we serve – from oil and gas producers to refiners and processors to residential, commercial and industrial customers – expect this of us.

Safety

Safe delivery

99.999%

CEPA member companies have delivered natural gas and liquid petroleum products with a 99.999 per cent safety record for over a decade and we continue to strive to reach our goal of 100 per cent.

454

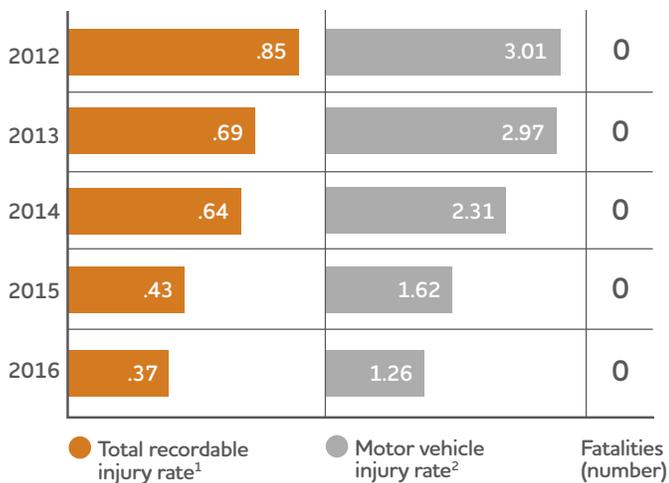
 Emergency response exercises

In 2016, CEPA members held more than 454 emergency response exercises, ranging in complexity from emergency drills to full-scale exercises.

14% decline

 in total recordable injury rate

The rate of injury to our members' employees that happened during the operations of their pipelines continued to decline in 2016, falling more than 14 per cent from 0.43 in 2015 to 0.37 per 100 full-time workers.



¹ The rate per 100 full-time equivalent workers is computed by (a) dividing the number of occupational injuries reported by the total number of hours worked by all employees during the calendar year, and (b) multiplying the result by 200,000. The factor 200,000 represents the hours worked in a year by 100 full-time equivalent workers (working 40 hours per week, 50 weeks a year).

² The motor vehicle incident rate is the number of motor vehicle incidents per million kilometres driven for business use and is calculated by (a) multiplying the total number of incidents by 1,000,000 and (b) dividing by the total business kilometres driven.

22% decrease

 in motor vehicle incident rate

The number of driving incidents per million kilometres driven fell from 1.62 in 2015 to 1.26 in 2016 – which means a 22 percent decrease. We continued to strengthen our efforts in areas such as regular driver training and work planning that ensures workers are not fatigued and have sufficient time to travel required distances.

14,000

return home safely at the end of the day

CEPA's members are focused on ensuring the 14,000 people directly employed by our industry, and the many thousands of contractors who work on our behalf, return home safely at the end of the day. Just as our members have committed to a goal of zero pipeline incidents, they also have a goal of zero incidents affecting the health and safety of their employees.

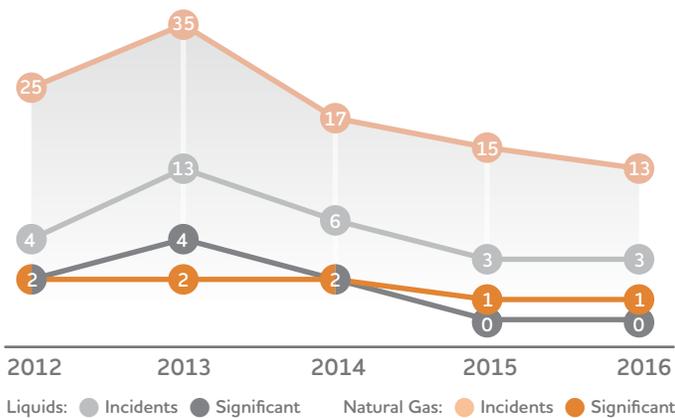
0 Significant liquids incidents

1 Significant natural gas incident

In 2016 our members reported 46 natural gas and liquids releases. Approximately 65 per cent (30 incidents) occurred within pipeline facilities. Of the remaining, 16 incidents occurred on our members' rights-of-way. Of those 46 incidents, one natural gas release was categorized as significant. There were no significant liquids incidents.

Number of incidents versus significant incidents

CEPA members 2012-2016



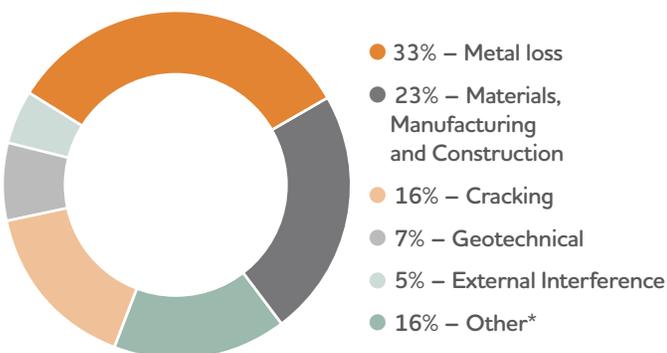
Through technological advancements, as well as our industry's effort in the areas of leak prevention and detection, only a small percentage of pipeline incidents are severe enough to meet the criteria of 'significant'. The majority of pipeline incidents are minor, such as small pinhole leaks. These minor incidents must be addressed but pose little risk to the public or the environment.

- A serious injury or fatality
- A liquid release
- An unintentional ignition or fire
- A line break

A significant incident includes one or more of the following: caused a serious injury or fatality; caused a liquid release of greater than eight cubic metres (50 barrels); produced an unintentional ignition or fire; resulted in a rupture of a pipeline. The significant incident in 2016 was categorized as a rupture and occurred during maintenance of a natural gas pipeline that was not operating.

Causes of pipeline incidents

CEPA members 2012-2016



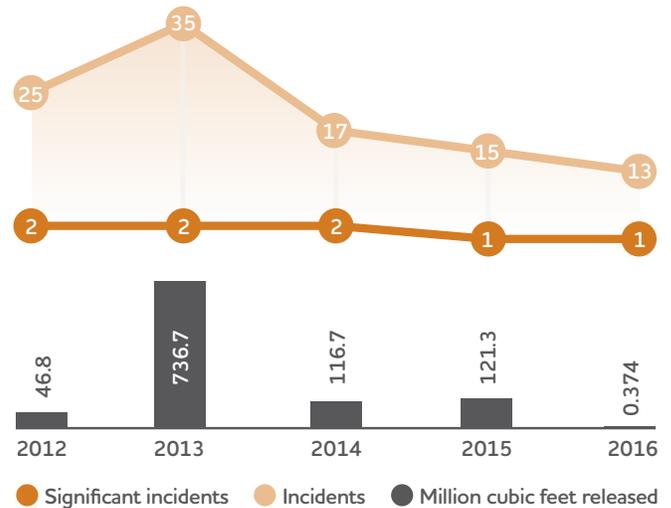
* Control system malfunction, improper operation, lightning, fire, and unknown.

374 THOUSAND

cubic feet released from natural gas pipelines

Unplanned product released from our members' natural gas pipelines in 2016 was approximately 374 thousand cubic feet. This is approximately equivalent to the amount of natural gas required to heat four new average-sized single detached homes in Canada for one year.

There were 13 natural gas incidents in 2016. There were no serious injuries or fatalities associated with these events.

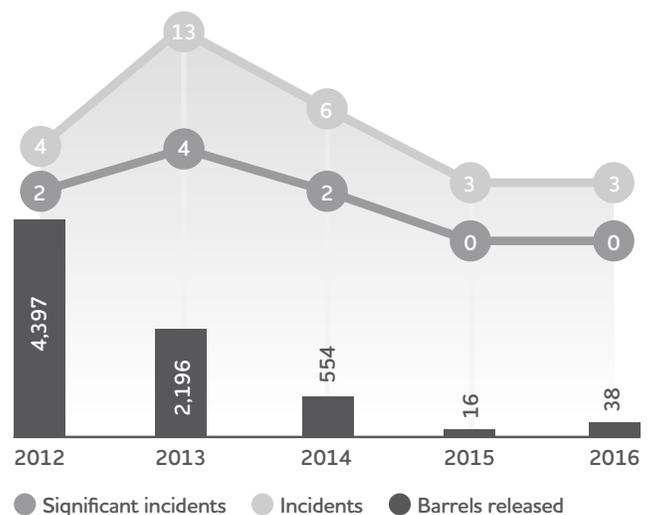


38 barrels of liquids released

In 2016, there were three liquids pipeline incidents on our members' rights-of-way, resulting in the release of 38 barrels of liquid product.

Liquids spill history

CEPA members 2012-2016

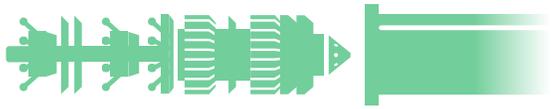


Liquids incidents are infrequent when you consider the large volume of products transported by CEPA members. Over the past five years, our members have transported approximately six billion barrels of crude oil and other liquid products and safely delivered 99.9999 per cent of that volume. The majority of the liquids pipeline incidents between 2012 and 2016 were small in volume (50 barrels). The single largest liquids pipeline incident in 2016 accounted for more than 80 per cent of the total liquids released.

Environmental Protection

\$1.2B

In 2016, CEPA members invested \$1.2 billion in maintaining and monitoring their Canadian pipeline systems



39,059 km

In 2016, our members conducted in-line inspection runs on 39,059 kilometres of pipelines in Canada using highly sophisticated tools called 'smart pigs' that examine a pipeline from the inside to identify features such as metal loss, dents and cracks that may require further investigation. More than 30 per cent of our members' 119,000 kilometres of pipeline in Canada were inspected by one or more in-line inspection tools in 2016.



2,696 Integrity digs

In 2016, CEPA member companies conducted 2,696 integrity digs to examine pipelines for defects and to make repairs - that's a total of 25,577 integrity digs since 2007.

The number of integrity digs in any given year is not a set number. Each company decides when and where to perform an integrity dig, based on the results of in-line inspections and according to the Operations and Management Program. During an integrity dig, a section of pipeline is excavated to give pipeline operators an up-close view of the pipeline to determine if a repair or replacement is required.

\$22.8M Invested in Innovative Technology

In 2016, our members invested \$22.8 million in innovative technology focused on reducing pipeline corrosion and improving pipeline inspection, leak detection and damage prevention. During the three-year period 2014-2016 our member's investment in these kinds of technologies totaled more than \$60 million.

CEPA Foundation



\$4.7B

Spent in communities across Canada

In 2016, CEPA members spent \$4.7 billion purchasing goods and services along pipeline routes across Canada supporting local communities.



24,060

Full-time direct and indirect jobs accounted for by our industry in 2015*

*Source: The Economic Impacts from Operations of Canada's Pipelines, Angevine Economic Consulting Ltd., 2015

Socio-economic Impacts

\$7.9B

Invested in Canadian capital projects

In 2016, our members invested \$7.9 billion in capital projects – helping to ensure Canada continues to have the safe and efficient transmission pipeline infrastructure it needs to stay competitive.

\$1.5B

Contributed to government tax revenues

In 2016, our members contributed \$1.5 billion to government tax revenues including income, property, motor fuel and carbon taxes.



\$732M

Of that \$1.5 billion, our members paid in \$732 million in 2016 in property taxes to municipalities in communities where we operate pipelines across Canada. In many rural municipalities with transmission pipelines, our industry is the largest single contributor to municipal taxes.

\$2.1 Million



Contributed to Fort McMurray wildfire relief

In 2016, CEPA and its member companies, including employee contributions, donated more than \$2.1 million in support of Fort McMurray wildfire relief.

Canadian Pipeline Projects \$50B

Our members are currently proposing to invest more than \$50 billion in Canadian pipeline projects over the next five years.

\$31.1M

Invested in community initiatives

In 2016, our members invested \$31.1 million in community initiatives across Canada, including \$3 million in Indigenous communities.



\$2.8B

Labour income provided by the transmission pipeline industry in 2015*

\$11.5 Billion

Contributed to Canada's economy in 2015 from the operation of energy transmission pipelines*

*Source: Canada's energy pipelines are an overlooked source of economic prosperity. In 2013, for the first time ever, CEPA commissioned a study to detail the economic impacts of Canada's transmission pipeline industry. The 2013 study, The Economic Impacts from Operations of Canada's Energy Pipelines (Angevine Economic Consulting Ltd.) was updated in 2015 and will be updated again in the spring of 2018. Highlights of the 2015 update are captured here. The full study is available at <http://www.cepa.com/Economic-Impacts-from-Operation-of-Canadas-Energy-Transmission-Pipelines-2015>