



CEPA Pre-Budget Additional Brief – November 21, 2013

The Canadian Energy Pipeline Association (CEPA) is pleased to respond to the Standing Committee's invitation to provide our views on the 2014 budget, especially on how the document can go toward Maximizing Employment Opportunities for Canadian.

CEPA recommends federal government support for pipeline technology research and collaboration across Canada. This is ultimately the means to advance pipeline technology and enable continuous improvement of pipeline safety and security. This support would position Canada as a world leader in engineering research, development and deployment through new and growing high tech Canadian companies. The initiative will contribute to improved social license to achieve Canada's economic goals and acknowledges the need for responsible, safe and reliable market access in order to maximize the value of resources.

At this time, federal support for collaboration would be defined as a modest contribution comprised of two things:

1. Sufficient capacity at Natural Resources Canada, through which the federal government could participate in collaborative efforts; and
2. Matching funding of up to \$5 million for three to five years to establish investments in technology and collaboration, perhaps through the CanmetENERGY program.

As a federal contribution to a pan-Canadian response, the proposal positions the government to support innovation and job growth across the country.

CEPA, the Pipeline Industry and Market Access

CEPA represents companies that transport 97% of Canada's daily onshore crude oil and natural gas production from producing regions to markets throughout Canada and the United States. Our membership currently operates more than 115,000 km of pipelines in North America. Pipelines are the only feasible, and safest, means of transporting large volumes of crude oil and natural gas over land. Our member companies are job creators, on the cusp of investing more than \$25 billion in a number of nationally significant projects in Canada.

Pipelines do more than just transport crude oil and natural gas. They deliver economic benefits to all Canadians, enabling more than one quarter of the value of Canada's goods-producing economy and generating thousands of jobs. Throughout the country, our member companies operate over 115,000 kilometres of transmission pipelines, and directly employ 9000 people. Our members paid over \$1 billion in corporate and property taxes in 2012.

For those working directly in the energy sector, salaries and benefits support thousands of families, local businesses and many regional economies from coast to coast to coast. The thousands of local suppliers across Canada, such as welding, steel manufacturing, construction, information technology, and even local hotels and restaurants, are all impacted by the pipeline industry. For those working outside the energy sector, the strength of our natural resources has generated a reliable stream of tax revenue that supports our quality of life.

At this moment, Canadians are faced with a golden opportunity to broaden trade. Infrastructure has not yet caught up to energy demand from non-OECD countries, which are expected to double their energy demands in the next 30 years¹. In survey results of market access benefits, titled *\$50 Million a Day*, the Canadian Chamber of Commerce collected a number of estimates from “reputable business and research organizations,” including the CIBC, CERI and the Canada West Foundation, who said, respectively, that stalled pipeline projects are costing the country \$18 billion a year², \$135 trillion over the next 25 years³ and \$30 to \$70 million a day⁴. The economic benefits of increased pipeline infrastructure are clear.

CEPA member companies are committed to continual improvement and shared lessons learned to support the ongoing safe operations of Canadian pipelines. We strive for zero incidents by applying strict standards and systems in designing, constructing, operating and maintaining our pipelines. Although significant progress toward this goal has been made over the past several years, a critical means to reach this goal is through increased research and development, and technological development.

The Canadian Pipeline Technology Collaborative and the CEPA Foundation

In spring 2013, Alberta Innovates Technology Futures, CEPA and others formed an advisory committee to explore the creation of the Canadian Pipeline Technology Collaborative (CPTC). The collaboration has included a number of governments and other stakeholders, with the intent to establish a Canadian technology and R&D hub for pipeline operators, researchers and technology providers. The desire is to create a pan-Canadian organization to leverage and optimize pipeline R&D that will address industry needs, with government and academic partners.

Using similar reasoning, the Australian federal government has introduced the concept of Cooperative Research Centres (CRCs), which facilitate strategic, sustained private-public research with the intent of providing leadership in the research and commercialization of new technologies that support targeted industries. CRC funding, provided by the Department of Industry, focuses on education, collaboration and technological commercialization. CRCs have become economic, social and environmental leaders on issues as diverse as climate change, aerospace manufacturing and health and vision technology and these programs been estimated to have increased Australia’s GDP by \$7.5 billion⁵.

Since 2010, the CRC has supported energy pipeline research, aiming to provide industry with technologies intended to extend the safe operating life of pipelines, to support growing demand for natural gas, and to prevent pipeline failures. With more than \$25 million from the Australian Commonwealth government and \$50 million from universities and industry⁶, the CRC has done

¹ Asia Pacific Foundation of Canada. *Securing Canada’s Energy Future: Report of the Canada-Asia Energy Futures Task Force*, June 2012.

² The Province. Alberta Oil Producers Losing Out. *The Province*. March 14, 2012. Accessed November 7, 2013. <http://www.canada.com/story.html?id=d328f6cd-6b89-490f-8466-be11de054f3e>

³ Canadian Energy Research Institute. *Pacific Access: Part 1 – Linking Oil Sands Supply to New and Existing Markets*. Study no 129 Part 1. July 2012.

⁴ Canada West Foundation. *Pipe or Perish: Saving an Oil Industry at Risk*. February 2013. http://cwf.ca/pdf-docs/publications/PipeOrPerish_Feb2013-1.pdf

⁵ Commonwealth of Australia. *Cooperative Research Centres: Supporting Innovation in Australia*. 2012.

⁶ Energy Pipelines CRC. *Summary Annual Report, 2010-2011*. 2011.

extensive research on pipeline materials, coatings and corrosion, design and construction, and public safety. This support has positioned the Australian pipeline industry as global leader, and assured that national interest in safe, long lived pipelines enabling market access continues to be progressive and world class.

In Canada, we already have an effective and well-respected program of Canada Research Chairs. However, collaboration would directly support inter-regional and international trade through improved operational integrity and visible innovation and job growth. The objective is to continue with ongoing collaboration, in order to advance six core areas in Canada:

1. Develop and commercialize new technologies with supply chain partners
2. Provide opportunities to develop highly qualified people
3. Maintain competitiveness by implementing leading edge technologies
4. Build unique pipeline testing facilities for researchers, operators and technology partners
5. Facilitate collaboration through a research network
6. Ensure sustainable funding

To enable collaboration across the value chain, CEPA also created the CEPA Foundation, where the suppliers, vendors and service providers who support and facilitate pipeline construction and operations that benefit from the pipeline industry can collaborate. Through the Foundation, we have provided a unique opportunity to bring together engineers, designers, contractors, manufacturers, and legal, land and environmental service companies. The core focus is on operational excellence, research, people & skills, and outreach. By sharing ideas and developing solutions, CEPA Foundation members will ensure the Canadian pipeline value chain's continued performance and economic success. For the advancement of pure and applied research, the CPTC complements the Foundation and gives key pipeline industry members and stakeholders opportunities to collaborate on issues of a technical nature.

These efforts will demonstrate that public interest about safety and reliability are being addressed in a co-ordinated and effective manner, gradually heightening the level of technical capacity, and, ultimately, strengthen the "social license" required to operate. Access to world markets creates jobs, business opportunities and tax revenue for Canadians. Not only that, but major pipeline industry suppliers will develop world class technologies, positioning themselves as leaders who can grow their businesses in Canada and export their cutting-edge products to other markets throughout the world.

Pipeline Safety and CEPA Integrity First

CEPA member companies are striving for an incident rate of zero. We are continuously advancing improvements in integrity practices and technologies which have already led to a drastic reduction in pipeline incidents. But there is still work to do to reach our goal of zero incidents. Much of that work must be done through increased commitment to research and development.

Among the recent technological advances made by CEPA and CEPA Foundation members that have contributed to pipeline integrity are:

- Internal Line inspections and PIGs (pipeline inspection gauges), which perform tests on the internal integrity of a pipeline⁷
- Pipeline coating, which protects against corrosion of pipeline assets⁸
- Sophisticated pipeline inspection and tracking, to ensure material quality, asset knowledge and early detection⁹.

In addition to the measures taken by pipeline companies themselves, the CEPA Integrity First[®] Program has been developed by the industry as a management system approach that enables CEPA members to strengthen the pipeline industry's performance by jointly developing and individually applying best practices. In addition, CEPA Integrity First[®] improves communication and engagement by enabling better reporting on our performance record.

In 2013, the focus is on pipeline integrity and emergency response. Pipeline integrity involves practices and processes that pipeline operators undertake to ensure that crude oil and natural gas are transported safely and within the intended operating parameters. Emergency response involves the ability for a pipeline operator to respond to an emergency situation using a comprehensive and systematic emergency response plan. In addition, CEPA is developing industry guidance on control room management.

As part of CEPA Integrity First[®], our member companies have made the following commitments:

Pipeline Integrity

1. We strive for zero incidents by applying strict standards and systems in designing, constructing, operating and maintaining our pipelines.
2. We maintain and use detailed information and records to make informed decisions that support our pipeline integrity program.
3. We identify, evaluate and manage risks and hazards to protect the public, the environment, and the integrity of our pipelines.
4. As CEPA member companies, we are committed to continual improvement and we share lessons learned to support the ongoing safe operations of our pipelines.

Emergency Management

1. We regularly assess pipelines and rights-of-way and apply risk-management practices to minimize adverse impacts to people, property or the environment in an emergency situation.
2. We strive to meet or exceed all new and existing regulations applicable to our operations and to monitor our compliance.
3. We educate and work closely with local emergency response agencies and community members to address their needs and concerns in the event of an emergency.

⁷ The Rosen Group, a CEPA Foundation member, hosts several examples of pigging inspection solution systems at <http://www.rosen-group.com/global/solutions/services/inspection.html>

⁸ Shaw Pipe, another CEPA Foundation member, has developed a powder coating that protects small and large diameter pipelines from corrosion: <http://www.rosen-group.com/global/solutions/pipeline-systems.html>

⁹ Pipeline service company and CEPA Foundation members Acuren provides an overview of a suite of pipeline tracking technology services at <http://www.acuren.com/index.php?id=33&nSegmentgroupsID=4>

4. We have emergency response plans in place that follow an internationally recognized emergency response system (ICS).
5. We have the equipment, resources and highly trained emergency response personnel necessary to respond effectively in any emergency.
6. We regularly review our emergency response plans, conduct drills and share lessons learned with our peers to continually improve our response capabilities.

On November 13, 2013, CEPA's Board further committed to emergency management by approving the first-ever formal Mutual Emergency Assistance Agreement. This agreement provides a clear legal framework to support the sharing of human resources and equipment in the case of a pipeline emergency. The Mutual Aide Agreement will minimize the impact of an emergency on people property and the environment. It is a clear indication to Canadians that member companies are committed to sharing their individual capabilities, expertise and resources with each other.

Support for pan-Canadian Pipeline R&D Collaboration

Pipeline infrastructure is critical to Canada's energy and economic interests. Canadians have invested in and achieved a world renowned stature in pipeline technology. Federal government involvement in a new level of collaboration and national strategy on pipeline technology, expertise and viable business development and growth amongst innovative suppliers, is key to moving forward. There is an opportunity to create a world-leading, global class of technological experts and companies.

R&D performed by individual companies, and supported by various research agencies and university research chairs is supported by our member companies. Strategic collaboration will provide opportunities for our industry to advance further, and more visibly, and industry suppliers will also be given the opportunity to sell their products throughout the world.

In summary, CEPA recommends federal government support for the pan-Canadian collaboration on pipeline research, including \$5 million in funding and sufficient internal capacity to enable a federal government role in pan-Canadian collaboration and leverage. This support for pipeline collaboration is ultimately the means to advance pipeline technology and enable continuous improvement of pipeline safety, and position Canada as a world leader in engineering research and development. The initiative acknowledges the need for responsible, safe and reliable market access in order to maximize the value of resources and will contribute to improved social license to achieve Canada's economic goals.

Strong, well-funded Canadian focus on technology development will grant the pipeline industry, and beneficiaries, the internal capacity necessary to enable productive collaboration. Any research funding will have a pan-Canadian effect, maximizing not only employment and economic opportunities for Canadians, but also creating a leadership role for a Canadian technology, associated globally competitive suppliers, effective regulation, and public policy.