



August 4, 2016

CSA Group Pre-Budget Submission to the House of Commons Committee on Finance

Executive Summary

The Canadian Standards Association (CSA Group) welcomes the opportunity to participate in the pre-budget consultation process of the House of Commons Standing Committee on Finance in preparation for the 2017 budget, and to provide our recommendations on behalf of our 9,000 members. In keeping with the committee's expressed areas of interest, our submission focuses on support for standards development and research, sustainability and clean growth, and development of Canada's Northern communities.

Established in 1919, CSA Group is an independent, membership-based, not-for-profit organization dedicated to creating a better, safer, more sustainable world – primarily through standards development, technical research, and training in relevant fields. We have worked with our members to develop more than 3,000 standards to enhance public safety and health, advance the quality of life, help protect the environment, and facilitate trade. Annually, we offer training, education and certification to over 6,000 people to help drive the implementation of standards. Globally, from 40 offices across 15 countries, CSA Group's 1,873 employees serve 35,000 customers spanning business, industry, government, and consumers.

As an internationally-accredited standards development and testing and certification organization, we engage in activities across key business areas including: home and commercial, industrial, healthcare and specialized markets, covering more than 50 areas of technology. The CSA certification mark appears on billions of products worldwide, and our work includes an emphasis on new technologies such as electric vehicles, alternative fuels, nano materials, wind and solar energy and fuel cells.

We recognize that our organization has a vital role to play in society. Our standards and codes are developed and maintained through the contributions of a wide body of volunteer experts – including industry, academia, governments, regulators and consumers – through an impartial, responsive and efficient consensus-based approach. They address emerging issues, articulate best practices, and drive innovation, efficiency and safety.

Collectively, our members have developed, revised and published landmark standards in such subject areas as workplace psychological health, underground infrastructure protection, climate change, oil and gas pipeline systems, nanomaterials, sustainability, and much more. These standards have broken through the barriers of "traditional standards" and are leading to positive change.

With this experience in mind, CSA Group recommends that the federal government:

1. Make strategic investments to encourage and support continued standard development efforts, particularly as it relates to research and the promotion of social good.
2. Continue to work, in collaboration with its North American partners, toward developing industry standards in regards to energy efficiency and renewable energy technologies.
3. Work to develop standards for the upstream segment of the oil and gas sector to advance sustainability, and continue to invest in developing and commercializing new technologies in that space.
4. Adapt building and infrastructure standards to respond to the challenges of global warming in permafrost areas.

Value of Standards

Standards play an essential role in driving Canada's economic growth while at the same time working to build social good. They boost productivity, improve performance and efficiency, kick-start innovation, and support domestic and international trade.

The economic benefits of standard adoption are significant. A recent study by the Conference Board of Canada – supported by the Standards Council of Canada – estimates that standardization contributed roughly \$3 billion or nearly eight per cent of the \$39 billion increase in real GDP in 2014, and the use of standards has injected more than \$91 billion into the Canadian economy since 1981.¹ The study also found a direct correlation between increases in the number of standards implemented and real GDP growth, showing that standards significantly contribute to Canada's economic growth and productivity.

Standards development and acceptance is beneficial in a number of ways. By implementing and participating in standards development, businesses can access new markets, improve processes, reduce costs, increase revenue and reduce risk. Standards allow businesses to find efficiencies through improved systems and processes. Standards are also facilitators of trade and allow industry to access new markets by ensuring improved compatibility of products and services that also meet the safety and performance requirements of local, provincial/regional and global jurisdictions. Additionally, standards contribute to the overall development of social good through improved safety, quality and processes, and by reducing environmental impacts.

¹ Source: The Conference Board of Canada. Getting Aligned: How Adopting Standards Affects Canada's Productivity and Growth, 2015.

It is worth noting that the benefits of standards development do not only apply to mature areas and sectors, but also contribute to the commercialization and mainstreaming of new innovations. Standards promote innovation.

As a knowledge-based organization, we understand that research is at the core of the standards development process. We recognize the need of governments and industry to be proactive, to anticipate society's needs and then to devise innovative solutions. Accordingly, the importance of investment in research to support standards development cannot be understated.

CSA Group urges the federal government to commit to making strategic investments to encourage and support continued standard development efforts, particularly as it relates to research.

Advancing Sustainability and Clean Growth

We know that climate change is an urgent priority for governments, businesses and all Canadians. CSA Group inspires innovative solutions that preserve our planet. CSA Group recognizes the important role that businesses have to play in working with the government and its North American partners to reduce greenhouse gas emissions and improve energy efficiency.

CSA Group partners with Environment & Climate Change Canada to promote Environmental Technology Verification (ETV) in Canada, a process to verify environmental performance claims by manufacturers. CSA group also works on cross-border energy efficiency initiatives with Natural Resources Canada and the U.S. Department of Energy (e.g. alignment of standards and regulations), and is involved with standards and certification related to renewable energy technologies such as solar photovoltaic, geothermal and wind.

CSA has created a registry system for capturing GHG reduction initiatives by industry and government, and tracking various carbon reduction initiatives such as cap-and-trade. This system is in place in Alberta and we're working with other provinces to determine potential opportunities. CSA registries could also be a critical component in any federal initiatives.

CSA has also developed the oil and gas pipeline standard that is referenced by the National Energy Board (NEB) and every provincial regulator. Related standards have also been developed, including those dealing with well integrity and emissions and flaring, which have strong environmental benefits. However, few if any standards have been developed for the upstream segment of the oil and gas sector, including operational and safety aspects of gas plants, refineries and upgrading facilities. Due to falling oil prices, industry doesn't have the resources to fund standards development.

The lack of resources, coupled with lack of research and standards, are delaying the development of best practices and the implementation of innovative technologies.

Increased standards research funding can help to advance developments of new technologies that drive efficiencies in the oil and gas sector. Specifically, support can further the development of a roadmap on the use of biofuels to increase safety and reduce greenhouse gases.

Standards to Support Canada's Northern Communities

It is without question that long-term economic, infrastructure and social development in the North continues to be one of Canada's most pressing policy challenges. The federal government has demonstrated a renewed commitment to making a positive and lasting difference for Canada's Indigenous populations and Northern communities. The government is also concerned with the effects of global warming in the North, and in Budget 2016 has pledged to work with provincial, territorial and municipal partners to help communities better prepare for these challenges through climate resilient infrastructure and adaptation.

Buildings in the North require special standards to sustain extreme weather conditions, but will also be required also adapt to the changes in permafrost conditions brought about by global warming. Building standards for infrastructure in permafrost regions should be updated to reflect this new reality. CSA has considerable experience developing standards for the North, including the implications of changing permafrost conditions.

CSA suggests that the government update infrastructure standards created for Southern applications to Northern conditions and circumstances. For example, ports and other coastal marine infrastructure should be designed for special conditions related to heavy ice conditions, but also to withstand sea level rise and increase wave action in the North. Improving the safety of ice roads and extending the ice road season by designing, building and operating community level roads and other infrastructure will also require significant leadership from this government.

Furthermore, research funding can help to advance developments that optimize sources of energy for Northern communities through the study of the role of diesel power, renewables, energy storage, etc. It can also contribute to the identification of the products and services, and related standards and best practices needed to shape the future of community development in the North.

Conclusion

We know that standards have an enormous impact on safety, the environment, the global economy and can help foster the wider acceptance and adoption of new or innovative technologies.

CSA Group is proud of its reputation for doing social good for Canadians, Canadian business and communities throughout the country. We are committed to leveraging our position to help grow the Canadian economy in new and innovative directions, and to achieve our goal of helping make the world a better, safer, more sustainable place, where standards work for people and business.

With the proper policy support, the development and use of standards will continue to foster a more innovative, competitive and prosperous Canada.

Once again, CSA Group's recommendations are as follows:

1. Make strategic investments to encourage and support continued standard development, particularly as it relates to research and the promotion of social good.
2. Continue to work, in collaboration with its North American partners, toward developing industry standards in regards to energy efficiency and renewable energy technologies.
3. Work to develop standards for the upstream segment of the oil and gas sector to advance sustainability, and continue to invest in developing and commercializing new technologies in that space.
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