



ASSOCIATION OF CONSULTING
ENGINEERING COMPANIES | CANADA

ASSOCIATION DES FIRMES
DE GÉNIE-CONSEIL | CANADA



Infrastructure: Investing in prosperity and sustainability

Written Submission for the Pre-Budget Consultations in Advance of the 2020 Budget

Submitted by:

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Summary of recommendations:

1. Prioritize investments that promote an efficient and sustainable economy
2. Expedite the delivery of already-committed infrastructure funds and projects through a re-profiling of the existing Building Canada Plan
3. Invest strategically in infrastructure programs supported by asset management plans, not just individual projects
4. Adopt Senate recommendations to strengthen the economy and trade with a National Infrastructure Corridor.
5. Review the cumulative regulatory burden that can significantly delay or increase the costs of projects.

Introduction

The Association of Consulting Engineering Companies-Canada (ACEC) represents over 400 firms providing strategic advice and engineering and scientific solutions to both public and private sector clients across Canada. ACEC member firms are involved in **almost** all infrastructure development in Canada with clients who are increasingly committed to more sustainable solutions. Well designed, modern and efficient infrastructure not only improves the economy, but does so in a more sustainable manner – by both reducing and mitigating environmental impacts. The role of consulting engineers is further described in [*Sustainable Development for Canadian Consulting Engineers*](#) published by ACEC in 2014.

To assist Canadian leadership in combating climate change, ACEC makes the following recommendations:

1) Prioritize investments that promote an efficient and sustainable economy:

ACEC believes that infrastructure can be an effective investment in our social, economic and environmental quality of life. However, priority should be given to core infrastructure that grows the economy, creates jobs and expands the tax base. Growing the economy will be essential to making further investments in community, social and environmental infrastructure viable and sustainable.

The commitment of \$2.1 billion to transportation and trade corridors is an excellent example of such investments by the federal government. Other similar investments that the federal government should consider include those recommended by the Canadian Chamber of Commerce in its report [*Stuck in Traffic for 10,000 Years: Canadian Problems that Infrastructure Investment Can Solve*](#).

Up-to-date and well-maintained infrastructure creates wealth. In its 2010 report [*Lessons from the Recession and Financial Crisis*](#), the Conference Board of Canada concluded that every dollar spent on infrastructure has the potential to increase GDP by as much as \$1.20. By contrast, infrastructure underinvestment is costing the Canadian economy 1.1% of real GDP annually. It is also reducing the long-term profitability of Canadian businesses by an average of 20% according to [*Public Infrastructure Underinvestment: The Risk to Canada's Economic Growth*](#) by the Residential and Civil Construction Alliance of Ontario (2010). A more efficient economy usually corresponds to a more sustainable economy.

It is clear that the world's climate is changing, that anthropogenic greenhouse gasses are the major contributor to that change, and that climate impacts will grow even if attempts to reduce greenhouse gas release are successful. These facts put the consulting engineering industry in the same key role on climate change as it is in with all of the other aspects of sustainability. Society looks to our industry to deliver two types of answers to this challenge – mitigation (reduction in greenhouse gas release), and adaptation (reduction in impact of more extreme climate conditions on human habitats).

There are a number of available approaches to improve mitigation performance on all types of new engineering projects, including energy, transportation, buildings, industry, and waste management. The biggest obstacle to overall mitigation improvement is the large stock of past projects that are major greenhouse gas emitters, with a more restricted range of possibilities in the retrofitting of older projects. Adaptation to the realities of climate change brings a different kind of engineering problem. Traditionally, design is based on historical environmental records for the site. Yet, with the climate changes that are taking place, new designs must now rely on climate prediction rather than history, which to date is a much less certain and specific basis for design. As a result, new projects will require greater factors of safety to achieve the same security and the projects will be more expensive than those in the past. Recent experiences with the costs of repairing and cleaning up after extreme weather events are a persuasive argument for spending the additional up-front money to provide better surety.

2) Expedite the delivery of already-committed infrastructure funds and projects through a re-profiling of the existing Building Canada Plan:

It is important that the commitments are not only long term but also timely and as consistent as possible. To be at the forefront of innovation, much of which is centered around green technology and infrastructure, confidence in consistent, ongoing funding is essential. Both the *Investing in Canada Plan* under the current government and the legacy *Building Canada Plan* from the previous government are significantly back-end loaded, with most of the investments skewed toward the latter years of the program. Design and construction firms, upon which governments rely to deliver infrastructure, are currently trying to retain their workforce through this early period of relatively modest investment. Then, when investment increases drastically and rapidly at the back-end of the programs, there will be significant pressure on industry that will make it difficult to meet demand. Labour and materials will become more expensive because of intense competition. Approval and regulatory processes will become overwhelmed. Municipalities could have challenges with cash flow or meeting their contributions. Delays and overruns will become almost inevitable. The resultant business uncertainty may discourage private investment. The important economic, societal and environmental benefits of infrastructure may be delayed or—worse—unmet.

To allow vital infrastructure investments to have a positive economic impact in a timelier and more consistent manner, we recommend a forward re-profiling of the existing *Building Canada Plan* from the previous government. This way, some investments can be made earlier over the program's lifespan to help offset the recent profiling of the phase two investments in the 2019 federal budget. We note that based on the last budget, the allocation of investments does appear to be more evenly distributed from previous years, although the balance of the investment is still to be made in later years of the program.

We further recommend that the planning and renegotiating of the next generation of federal infrastructure investments occur prior to the expiry of current programs. Gaps between programs result in layoffs and lost capacity and expertise, only to have to rebuild years later when a new program is announced. This applies to consulting engineering firms, the broader construction industry and their public sector partners.

3) Invest strategically in infrastructure programs supported by asset management plans, not just individual projects

Infrastructure projects do not exist in isolation of one another. Collectively, our infrastructure is what connects and enhances communities, enables commerce and trade, and protects our environment. However, our infrastructure is only as effective as the weakest link. Therefore, to receive the best return on investment, a coordinated and strategic approach should be taken to infrastructure planning and investment.

In cases where municipalities have robust and well-considered asset management plans, ACEC recommends providing funding based on their investment program rather than on a project-by-project basis. This approach would allow multiple strategically-related projects to be efficiently approved under a single application. It would also serve as an incentive for municipalities to develop and adopt asset management plans to guide strategic investment decisions.

4) Adopt Senate recommendations to strengthen the economy and trade with a National Infrastructure Corridor:

ACEC urges the government to enact many of the recommendations from the 2017 Senate Report titled [*National Corridor: Enhancing and Facilitating Commerce and Internal Trade*](#) written by the Senate Committee on

Banking, Trade and Commerce. Such a corridor is essentially a pre-established, pre-approved right-of-way dedicated to accommodating multiple infrastructure assets (e.g. road, rail, pipeline, electrical transmission and communication).

Compared to the current fragmented approach to infrastructure, accommodating multiple infrastructure assets within a National Corridor would require smaller geographical footprints and result in less impact on the environment and on surrounding land uses.

A national corridor would make it more economically viable to connect northern and remote communities and First Nations to vital economic and quality of life enhancing infrastructure (such as power, communications, road and rail), it would also establish a sound and predictable business case for private investment in economically driven projects to access resources and to enhance trade of goods and services within Canada and internationally.

This implementation would proactively address social and environmental concerns making the planning, development and implementation of both public and private infrastructure projects less costly and more time effective. A national corridor would help bring projects to fruition and limit the environmental impacts, both of which are in support of your government's objectives. However, because of the national scope of such a project and the many jurisdictions and stakeholders involved, national leadership is required from the government.

5) Review the cumulative regulatory burden that can significantly delay or increase the costs of projects:

Each year, all levels of government introduce new laws and regulation impacting everything from labour to licensing, from building permits to accessibility requirements. Each of these may individually be very sound policy, but there is rarely consideration of the cumulative impact. Added together, these regulations represent a significant drag on the ability of private sector to implement the government's infrastructure agenda, and to flow the economic benefits associated with it to the communities. The federal government should conduct a robust cost-benefit analysis for all regulations that it enacts, to ensure that benefits exceed costs. It should also conduct regular reviews of existing regulations to ensure that their policy objectives are being met at an acceptable cost to the taxpayer and the economy.

Budget 2019 did address this issue by introducing the first three "Regulatory Roadmaps" to specifically address stakeholder issues and irritants in three sectors including transportation and infrastructure. Budget 2019 proposed the necessary funding and legislative revisions so that regulatory departments and agencies can move forward on the Roadmaps. This concept should be expanded government-wide to create a user-friendly regulatory system that invites more innovation, encourages greater cooperation and reduces duplication.

ACEC is watching the regulatory process following the adoption of Bill C-69 very carefully. While its objectives are sound, the current uncertainty around the regulatory burden may inadvertently discourage or delay projects that improve the efficiency and sustainability of our economy. ACEC would therefore recommend, as we did at the Senate committee hearings, that the government convene stakeholder workshops on the impact factors listed in the Act prior to implementation to ensure clarity and mutual understanding of the requirements of the assessment process. In order to successfully balance and reconcile economic and environmental considerations, transparency and clarity from the onset are essential.

About the Association of Consulting Engineering Companies

The Association of Consulting Engineering Companies (ACEC) is the national voice of consulting engineering in Canada. Consulting engineers are experts in infrastructure and will be directly involved in delivering the federal government's \$126 billion commitment to infrastructure.

ACEC is a federation of 12 provincial and territorial associations representing over 400 companies that provide engineering and other professional services to both public and private sector clients across Canada. These services include the planning, design and execution of all types of infrastructure projects as well as providing independent advice and expertise in a wide range of engineering and engineering-related fields.

Through offering these services, ACEC member companies have a direct influence on virtually every aspect of our economic, social and environmental quality of life in Canada.

Consulting engineering in Canada is a \$28.4 billion a year industry. ACEC member firms directly employ over 50,000 Canadians. Canadian based companies are globally recognized for their expertise and are collectively the second largest providers of engineering services in the world.

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