

THE ENGINEERING PROFESSION'S POSITION

- To ensure Canada's long-term economic recovery, the federal government should make strategic economic investments in infrastructure, the natural resources and energy, sustainable development and innovation sectors, and diversity initiatives.
- Engineers and the engineering profession play a vital role in Canada's response and long-term economic recovery from COVID-19.
- To have a lasting effect and ensure the protection of the public, the economic recovery must be part of an approach that will ensure the integrity and quality of investments.
- The federal government's willingness to coordinate and collaborate with key stakeholders, particularly the engineering profession, is essential to Canada's economic recovery.
- Public confidence and safety are at risk when engineers are not involved in the planning, development, and implementation of a wide range of regulations that require the application of engineering expertise.

The challenge(s)

The COVID-19 virus has spread with alarming speed around the world, infecting millions of individuals and bringing economic activity to a near-standstill as countries impose restrictions on movement to halt the spread. The economic damage of the COVID-19 pandemic is evident and represents one of the largest economic impacts the world has experienced in decades.

Globally, the baseline forecast, provided by the World Bank in their June 2020 *Global Economic Prospects*, outlines a 5.2 per cent contraction in global GDP in 2020—the deepest global recession in decades—despite the extraordinary efforts of the international community to counter the pandemic with fiscal and monetary policy support.¹ COVID-19 has prompted an urgent need for governments to cushion the pandemic's economic consequences while setting the stage for lasting economic recovery. With the uncertainty surrounding the second wave of the virus, or the availability of a vaccine, the pandemic is sure to impact Canadians for several years to come.

¹ The World Bank (June 2020). "The Global Economic Outlook During the COVID-19 Pandemic: A Changed World." Retrieved July 16, 2020 from: <https://www.worldbank.org/en/news/feature/2020/06/08/the-global-economic-outlook-during-the-covid-19-pandemic-a-changed-world>

As governments grapple with an unprecedented global health crisis, it is undeniable that Canada's federal government must continue its pandemic management while also focusing its attention towards rebuilding Canada's economy.

How Engineers Canada has contributed

Engineers Canada submitted [budget recommendations](#) to the House of Commons Standing Committee on Finance in August 2020, and submitted [recommendations](#) to the House of Commons Standing Committee on Industry, Science and Technology on the Canadian response to the COVID-19 pandemic. Through these submissions, Engineers Canada re-iterated the need for investment in green infrastructure, support for women's role in Canada's economic recovery, and improved broadband connectivity for increased participation in the Canadian economy for everyone.

Recommendations to the federal government

COVID-19 is testing the resilience and adaptability of governments, industries, and societies across the globe. To ensure Canada's long-term recovery, the federal government should focus on the following:

Investing in Infrastructure

Economic recovery in the long term requires the federal government to accelerate planned infrastructure projects through the [Investing in Canada Plan](#) program and other legacy programs into the next two or three years as stimulus. By accelerating approvals, jobs will be created, and the economy will continue to be supported, while ensuring that the conditions for success are in place to ensure that increased construction does not come at the expense of the quality of the engineering works and the integrity of the process leading to their construction. To this end, public agencies should develop in-house engineering and procurement expertise, set multiple criteria for awarding contracts and weigh them appropriately, maximize the potential participation of bidders, adequately protect whistleblowers, and intensify the monitoring of the work.

Additionally, the federal government must continue to invest in green infrastructure and new environmental technologies as a recovery strategy to help benefit both the economy, as well as to deliver on Canada's climate commitments. In 2018, green building activity contributed approximately \$48 billion towards Canada's GDP—an increase of 50 per cent in four years. Investing in green infrastructure has proven to offer both high economic returns and a positive climate impact.

Continued investments in natural resources and energy sectors

Supporting natural resources and energy sectors as they work to transform to meet a net zero future, creating good-paying and

long-lasting jobs remains critical to Canada's economy. Increasing support for such projects will reduce the need and cost of importation, support the labour force, and increase Canada's self-sufficiency.

Continued support for diversity initiatives

In May 2020, Statistics Canada reported that 1.5 million women disproportionately lost their jobs over a two-month period, when compared to men, due to the COVID-19 pandemic. Women are disproportionately bearing the brunt of childcare responsibilities and have therefore been most impacted by the pandemic when compared to their male counterparts. To serve the economy, as well as Canadian society at large, the federal government must continue to support efforts to attract and retain talented individuals from Canada's diverse populations. Engineers Canada is encouraged by the federal government's support for an Action Plan for Women in the Economy to get women back into the workforce. With women making up approximately half of Canada's workforce, it is imperative that the federal government continue to support diversity and inclusion initiatives to kick-start Canada's economic recovery.

Role of engineers in Canada's long-term recovery

During the COVID-19 pandemic, many engineers—as part of listed essential services—have played a critical role, both on the frontline and in supporting frontline workers and communities across Canada. Engineers possess the skillset for innovative solutions to flourish in complex global situations, such as the design of personal protective equipment or the development of diagnostic tools to effectively screen large populations. On the frontlines, engineers have also played an important role in developing sustainable infrastructure that mitigated COVID-19 exposure, such as heating,

ventilation, and air conditioning systems, physical distancing design, maintenance of facilities and others. Engineers will continue supporting Canadians by playing an important role in the immediate-, short-, and long-term economic recovery of Canada.

The federal government's willingness to coordinate and collaborate with key stakeholders, particularly the engineering profession, is essential as Canada continues to cope with pandemic response, while shifting its focus towards the country's economic recovery. Engineers are essential in the design, implementation, construction supervision and maintenance of all types of infrastructure, making the engineering profession critical in connecting communities, driving our economy, and keeping Canadians safe.

The engineering profession also plays a critical role in safely and sustainably extracting, processing, and delivering natural resources, such as minerals, water, wood, soil, oil, and gas. Finally, Engineers Canada is actively working to support the recruitment, retention, and professional development of women in the engineering profession, primarily through its [30 by 30](#) initiative.

How Engineers Canada will contribute

Engineers Canada will continue to:

- Provide input from engineers on federal legislation and regulations to ensure that federal policy is grounded in cutting edge technology and research and helps to build a more resilient and inclusive economy.
- Offer advice and technical expertise to ensure the federal government is informed on the needs of the engineering regulators and the engineering profession in Canada.
- Share recommendations from the engineering regulators and the engineering profession regarding Canada's long-term economic recovery and bring concerns to the attention of the federal government.