JUNE 2021

CANADA'S BUILDING TRADES UNIONS

NATIONAL INFRASTRUCTURE ASSESSMENT SUBMISSION

CBTU SMCC
CANADA'S BUILDING TRADES UNIONS
LES SYNDICATS DES MÉTIERS DE LA CONSTRUCTION DU CANADA
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72 Chamberlain Avenue, Ottawa, Ontario K1S 1V9

On behalf of Canada's Building Trades Unions, I appreciate the opportunity to share our submission for Canada's National Infrastructure Assessment.

Canada's Building Trades Unions represents over half a million of the best trained, most highly-skilled craft workers in the world. Each year our industry – through union members and our contractor partners - invests over $300 million to fund and operate 195 apprenticeship training and education facilities across Canada. Since 1908, our members have built the roads, bridges, factories, hospitals, schools and green construction projects that benefit communities and Canadians from coast to coast. We continue to adapt our skills and training to address new industries, ever-changing technologies and the challenges our country faces.

From the start of the pandemic, construction was deemed essential and our members continued to go to work each, and every day. Construction has, time and again, proven itself as a vital and stable force in Canada's economy. We have the opportunity, now, to look long-term, into what building back better really entails. According to the 2019 Canadian Infrastructure Report Card, nearly 40 per cent of roads and bridges in Canada were in fair, poor, or very poor condition and 30 per cent of existing water infrastructure were also in fair, poor, or very poor condition. In addition to the state of our infrastructure, it's estimated that Canada's infrastructure deficit ranges from $110 billion to $270 billion and the country's asset to GDP ratio falls below the world average of 70 per cent.(i)

Over the last few years, our industry has been encouraged to see Canada's infrastructure has been one of the main pillars of the Government. Now, the undertaking of a National Infrastructure Assessment will allow us to move beyond a short-term plan and instead focus on a long-term vision. In the following pages, we have outlined our recommendations on four distinct areas:

1. *Procurement Strategies*
2. *Funding and Financing Infrastructure*
3. *Opportunities for Large Scale Infrastructure Investments*
4. *Supporting Canada's Skilled Trades Workforce*

We appreciate the undertaking of a National Infrastructure Assessment and the opportunity to share our experience and knowledge of building Canada's infrastructure to continue to build Canada for 2050 and beyond.

Sincerely,

Sean W. Strickland
Executive Director, Canada's Building Trades Unions

ABOUT CANADA'S BUILDING TRADES UNIONS

Canada's Building Trades Unions (CBTU), the Canadian arm of North America's Building Trades Unions (NABTU), are an alliance of 14 international unions in the construction, maintenance and fabrication industries that collectively represent over half a million skilled trades workers across Canada since our inception in 1908. Each year, our unions and our signatory contractor partners invest over $300 million in private sector money to fund and operate over 195 apprenticeship training and education facilities across Canada that produce the safest, most highly trained and productive skilled craft workers found anywhere in the world. Canada's Building Trades Unions represent members who work in more than 60 different trades and occupations, and generate six per cent of Canada's GDP; our industry maintains and repairs more than $2.2 trillion in assets.

Our work is not just done on site, but in several facilities that provide modules or other components that are incorporated into the structures that we work on. Once structures are built, we are employed in their renovation, maintenance and repurposing. Our members are highly trained skilled tradespeople who are the backbone of the middle class. The Unions that compose CBTU can be found on our website here.

As the Federal Government works towards a net-zero emissions future and seeks to improve coordination and funding mechanisms, the Government should consider adopting funding and procurement strategies that maximize benefits.

Triple Bottom Line

Triple Bottom Line (also referred to as TBL or 3BL), is a business concept whereby firms commit to measuring their performance beyond the standard "bottom line" by focusing on social and environmental impact. The triple bottom line can be broken down into social, economic and environmental benefits.

The triple bottom line approach requires firms to move beyond just maximizing profits for shareholders; it requires them to examine the impact their initiatives have on the environment and society. For example, utilizing green sourced materials that have a lower embodied carbon rate; buying materials where there is a fair-wage agreement; or, leveraging construction projects in order to have tangible social benefits for communities like affordable housing.

We recommend the Government of Canada adopt the Triple Bottom Line approach and framework to maximize the greater societal benefits on construction projects.

Alternative Contract Awarding Methods

Historically, construction contracts have been awarded based on a low-bid, minimized-risk approach. While adopting a Triple Bottom Line approach, CBTU recommends the government simultaneously utilize alternative contract awarding methods. They are less reliant on price, spread risk amongst stakeholders, and are focused on long-term value of the project. Examples include Best Value Procurement, Integrated Project Delivery, Design-Build, and Design-Build-Finance-Operate-Maintain.

The procurement of goods and services provides another means for the Government to lower emissions made in the construction sector, mitigate the impacts of climate change and reach the goal of net-zero by 2050. Building construction and operations accounted for the largest share of global energy-related carbon emissions in 2018 at 39 per cent according to the International Energy Agency (IEA). Of that 39 per cent, 28 per cent accounted for operational emissions while the remaining 11 per cent consisted of embodied carbon from materials and construction. Although 11 per cent may seem small, embodied carbon will account for almost half of total new construction emissions between now and 2050.(ii)

Canada, with our strong manufacturing base, access to renewable energy and highly-skilled workforce, has an opportunity to implement a procurement strategy that helps to meet net-zero while creating thousands of jobs.

Funding and Financing Infrastructure

Building Canada for 2050 and beyond requires a thoughtful, long-term vision aligned with a long-term view on funding and financing. CBTU recommends the following funding strategies:

Infrastructure Spending as Percentage of GDP

Canada has a large infrastructure deficit. While it may seem intuitive to raise spending levels to help close the infrastructure deficit, short-term boosts to infrastructure spending have been shown to be inefficient. This inefficiency is due to the difficulty of getting funding out of the door in a timely manner (iii), economic information data is often delayed, and short-term stimulus results in projects that are approved without adequate cost benefit analyses. (iv)

According to the Canadian Centre for Economic Analysis, stable infrastructure spending is economically more beneficial than the current volatile spending model. Irregular spending reduces economic growth potential from infrastructure investment and results in less funding available to support infrastructure as well.(v) Given Canada's current fiscal restraints following the COVID-19 pandemic, we are calling for a fixed percentage of GDP to be spent towards annual infrastructure funding. By allotting a set percentage dedicated to infrastructure funding, infrastructure can be de-politicized and greater focus can be devoted to operationalizing funding and realizing long-term social, economic, and environmental benefits of individual projects.

Direct Funding to Municipalities

Municipalities are responsible for significant and costly infrastructure systems and services in their communities that residents use every day. These include public transit, local roads, and community infrastructure such as parks and recreation facilities. The majority of Canada's public infrastructure (61 per cent) is owned by municipal governments. The 2019 Canadian Infrastructure Report Card found that a concerning amount of municipal

infrastructure is in poor or very poor condition, requiring immediate action. With smaller budgets and the inability to have deficits, Canadian municipalities need support from federal and provincial governments to make improvements to existing infrastructure and to build new infrastructure.

Municipalities are constricted in their spending abilities and are adversely impacted when their limited sources of revenue take a hit. For example, municipalities' income from public transit was severely depleted throughout the COVID-19 pandemic, which left a funding hole that was particularly noticeable for larger, urban municipalities. The Canada Community-Building Fund (formerly called the Federal Gas Tax Fund) which provides $2 billion every year to 3,600 communities is the type of consistent, ongoing support municipalities need from the Federal Government. The Canadian Government should continue to support municipalities through direct and stable funding sources over and above the Community-Building Fund.

Public-Private Partnerships and the Canada Infrastructure Bank

In 2017, as the Government of Canada made historic investments in infrastructure, it dismantled PPP Canada which was established in 2009 to support the establishment of public-private partnerships. Subsequently, the Canada Infrastructure Bank (CIB) was formed to support revenue-generating infrastructure projects that are "in the public interest" through public-private partnerships. As the Federal Government's infrastructure agency, the CIB has been established to use $35 billion in federal funding to partner with the private sector to achieve long-term returns for both the government and the private sector partners. However, the CIB has faced delays getting projects started and attaining private sector funding within its first few years of operations.(vi)

To move forward large-scale infrastructure projects, the government needs to leverage partnerships with the private sector. The CIB mandate needs to expand to take on more risk and support the advancement of new technologies such as Small Modular Reactors. Through taking on more risk, CIB's potential project pipeline will expand and enable more opportunities for private investment. In the following section of this submission, we have outlined additional areas the Government of Canada should make large-scale investments through P3s.

Opportunities for Large Scale Infrastructure Investment

CBTU has outlined several areas in which the government should make additional investments directly and/or through the Canada Infrastructure Bank that will simultaneously support our economy, our workers and Canada's net-zero ambitions.

Renewable Energy Technologies and Energy Efficiency

1. Small Modular Reactors: SMRs are expected to create up to 6,000 jobs, help Canada meet its climate goals by helping remote and northern communities and industries to move away from the use of fossil fuels, and add up to $10 billion to Canada's GDP between 2030 and 2040. According to a study by PricewaterhouseCoopers LLP, the construction and manufacturing of an SMR alone could add $1.3 billion to Canada's GDP and create up to 1,700 jobs.(vii) CBTU calls on the Government to remove regulatory burdens to boost innovation and ensure private sector entities have access to funding.

2. Hydrogen: Hydrogen could provide up to 24 per cent of the global energy demand by 2050 with a global market for hydrogen expected to surpass $2.5 trillion by the same year. (viii) In addition to helping Canada meet its climate goals, it is also expected to create 350,000 well-paying jobs over the next three decades that support a skilled workforce according to Canada's Hydrogen Strategy.(ix) CBTU calls on the Government to continue to support hydrogen research and the implementation of hydrogen fuel technologies. Given Canada's access to clean renewable energy and technologies such as carbon capture, Canada is positioned well to become a world-leader in expanding the use of hydrogen technology.

3. Carbon Capture Technologies: As former Governor of the Bank of Canada Mark Carney noted, without carbon capture technologies, the majority of the world's oil reserves, including Canada's, are at risk of becoming unusable.(x) Carbon capture technology can achieve an efficacy rate of up to 90 per cent and can play a pivotal role in helping the world transition away from fossil fuels while maintaining employment in the Canadian energy sector.

The Government should help deploy carbon capture technologies in combination with incentives for industrial retrofits in order to reduce emissions from Canada's most pollutive industries.

4. Industrial and Commercial Retrofitting: While the Canadian Government has begun to make investments to support residential retrofits, further investments and incentives are necessary to support large-scale retrofits for industrial and commercial facilities to be more energy efficient. Upgrading Canadian buildings to be more energy efficient will help Canada achieve its Net Zero ambitions while also creating new jobs.

Regional Power Grids

1. Atlantic Loop: Regional power grids such as the Atlantic Loop would help transform the energy landscape of Canada's Atlantic provinces by taking clean energy generated at hydro dams in Newfoundland and Labrador and Quebec, sending it south to Nova Scotia and New Brunswick where fossil fuels are still in use. The Canadian Government should support the realization of the Atlantic Loop and play a supportive role among the provinces to guarantee this project gets off the ground. The Atlantic Loop would lead to further investments and innovation in green technologies in the area, create jobs for a region that has been greatly impacted by COVID-19, and help the maritime provinces transition from coal, faster.

2. East-West Power Grid: Like the Atlantic Loop, the East-West Power Grid is another project that aims to remove interprovincial barriers to energy. This would involve building new electrical infrastructure so that British Columbia could sell Alberta electricity. Approximately 93 per cent of British Columbia's energy is produced through renewables while Alberta relies on coal for approximately 55 per cent of its energy needs. The Government should play a mediative role between Alberta and British Columbia and provide the necessary funding to see that this project comes to fruition.

Transportation

1. High-speed Rail: Canada is the only G7 country that does not have high-speed rail. Currently, VIA trains along the Windsor-Quebec corridor can only reach speeds up to 160 km. This falls far below the 300 km bullet trains that exist in Europe and Eastern Asia. Implementing a high-speed rail corridor from Windsor to Toronto alone could reduce 7.8 million tonnes of CO2 emissions over the train's life cycle and create nearly $22 billion in economic benefits during its lifetime.(xi) The Government should invest in high-speed to help connect municipalities across the country, create well-paying jobs, and reduce emissions by taking cars off the road.

2. Hyperloop: Hyperloop technology has the potential to revolutionize travel within Canada by providing emissions-free travel with speeds up to 1000 km/h. This would provide a greener alternative to short-haul flights in Canada and reduce the need for automobiles. CBTU recommends exploring the commercial application of this technology and creating standards for industry to follow.

Supporting Canada's Skilled Trades Workers

In order to accomplish Canada's short-term and long-term infrastructure goals, it is necessary to have a well-trained and qualified workforce. Representing over 600,000 skilled trades workers, CBTU has identified areas for improvement and additional opportunities for the Government of Canada to support workers.

Recruiting Underrepresented Groups and Apprentices

Canada's Building Trades Unions affiliates, locals and provincial councils have been doing work in the area of diversity and inclusion for decades including identifying and addressing barriers to recruitment and retention of underrepresented groups in the skilled trades. Through CBTU programs like Build Together, the Office to Advance Women Apprentices and Indigenous Awareness Training, CBTU has developed and offers wraparound support services to better support workers in the skilled trades. However, the next vital step in this work is to contractually mandate hiring requirements through Community Benefits Agreements (CBAs) or Workforce Development Agreements (WDAs) on federally procured construction projects.

CBAs often contain provisions that enable apprenticeships, establish grounds for workplace development initiatives, provide funding and economic support for impacted communities, and set forth goals for Indigenous Canadians and other underrepresented groups including women, leaving a legacy of experience, skills training and employability.

Several municipalities across Canada have adopted CBA/WDA policies including the City of Toronto (xii) and the City of Vancouver. (xiii) Provinces, including Newfoundland and Labrador, Nova Scotia and British Columbia have all implemented CBA/WDA policies. A leader in Canada, the British Columbia Infrastructure Benefits (BCIB), a Provincial Crown corporation, provides the qualified skilled trades workforce for the construction of public infrastructure projects operating under Community Benefits Agreements.

The Government of Canada should implement CBAs on federal procurement contracts to maximize returns on infrastructure spending. For more information on CBAs, read CBTU's 2021 report.(xiv)

Skills Training

To fill the vacancies left by retiring baby boomers and meet the demands of anticipated growth, the construction industry will need to recruit and train new workers.

Since its launch, the Union Training and Innovation Program (UTIP) has provided considerable support to improve and expand training and support for skilled trades workers. For example, UTIP allowed for the expansion of the Office to Advance Women Apprentices to in Manitoba, Saskatchewan and Nova Scotia. The OAWA works to increase employment opportunities for women in the skilled trades by providing ongoing support to tradeswomen seeking work or already employed in the skilled trades. OAWA's second year report indicates that 449 clients registered to the program, with 30 per cent (136 clients) across Years 1 and 2 identifying as Indigenous, well above the initial goal of 10 per cent Indigenous women.

CBTU hopes to see the UTIP program continue to support Canada's skilled trades workforce, with the following changes:

1. Extend funding for bricks and mortar projects to expand training centres through extensions or new builds that will increase capacity.
2. Alter the UTIP funding structure to accommodate a lower investment requirement from the training centres; often the 50/50 split is restrictive to training centres that are financially limited.
3. Take into consideration the fluctuation in pricing of equipment and machinery based in US dollars, as prices may fluctuate from the time a proposal is submitted to the time it is approved. A measure to bridge the pricing gap provided by the UTIP program would be helpful.
4. Simplify the application process to address the needs of smaller training centres with limited capacity. Additionally, allow entities that have successfully received UTIP funding in the past to reapply through a scaled down application process.

Supporting Energy Workers

The last two decades have seen rapid changes taking place in Canada's energy sector, particularly in the oil and gas industry, leading to significant job loss. Without the appropriate training, support and guidance, workers struggle to secure employment opportunities and face persistent and ongoing hardships, which in turn impact their families and local communities. As the Canadian economy transitions to net-zero, workers need to be at the top of mind for decision makers. Renewable energy jobs are less likely to be unionized and are often not as high-paying or long-term.

Urgent, proactive action is required to ensure that Canadian workers in the energy sector are not left behind through the creation of a task force or committee to support the future of energy jobs. Similar to the Just Transition Task Force for Canadian Coal Power Workers and Communities, the task force or committee would be responsible for advising and providing ongoing support to the Government on the transition facing the energy sector and energy workers.

Labour Mobility

Skilled trades workers have always had to travel for work – that's why we're called journeypersons. Sometimes, mobility creates a barrier for workers to go to where the work is to build Canada's infrastructure. Skilled trades workers need government support to address the financial barriers to labour mobility through the implementation of a tax deduction for skilled trades workers or other financial supports.

Currently, salespeople, professionals and Canadians in other industries can receive a tax deduction for the cost of their travel, meals, and accommodations. The same option is denied to skilled trades workers who work on job sites that are in different regions or provinces from their primary residence. For example, someone selling rebar or conduit for the construction of a new building, can travel and deduct from income the cost of their travel, meals, accommodations, while the same option is unjustly denied to skilled workers who work hard to construct the buildings. The Government of Canada has a responsibility to ensure a system of tax fairness is in place for all Canadians and should update the Income Tax Act to enable skilled trades workers to deduct work-related travel and accommodation expenses. This will save the Government significant money through increased tax revenues and reduced reliance on EI and other government programs. In March 2021, CBTU commissioned a financial projection that found a Canada-wide implementation of a skilled trades workforce mobility tax deduction would save the Federal Government an estimated $347 million dollars. (xv)

Mobility costs have been an issue for construction workers for decades. The Government should take leadership and introduce a tax code change or similar fiscal incentives to support Canadian workers who are ready to go to work and build Canada's infrastructure.

CONCLUSION

Canada's Building Trades Unions appreciate the opportunity to submit our views on a National Infrastructure Assessment. As the Government is focused on investing in infrastructure to meet its climate goals and priorities, hardworking men and women in the industry should be accounted for and equipped to support this transition. A long-term strategy for growth must take into account the need to build green but also build long-term career opportunities for Canadians that allow our economy to thrive and ensure those traditionally left behind are given ample opportunity and support to succeed.
As stated in this report, the Government of Canada should:

1.Adopt a Triple Bottom Line procurement strategy that maximizes social, environmental and economic benefits;

2.Provide stable infrastructure funding through a fixed percentage of GDP; continue to support municipalities through direct and stable funding sources over and above the Community-Building Fund; and leverage partnerships with the private sector and expand the CIB mandate;

3.Make innovative investments in new renewable energy technologies like SMRs, hydrogen, and carbon capture technology; invest in regional power grids like the Atlantic Loop and East-West Power Grid; and invest in transportation like high-speed rail and hyperloop technology;

4.Implement programs and supports for Canada's skilled trades workforce including community benefits agreements to create opportunities for underrepresented groups and apprentices; continued funding and improvements to UTIP; create a Task Force on the Future of Energy Jobs and provide financial support to encourage skilled labour mobility.

Canada's Building Trades Unions look forward to participating in the national discourse on building back better and building the Canada we want for 2050 and beyond.

END NOTES

i Infrastructure productivity: How to save $1 trillion a year, McKinsey Institute

ii BUY CLEAN: How Public Construction Dollars Can Create Jobs and Cut Pollution

iii Canada needs more infrastructure spending, but not as short-term stimulus, Maclean's

iv Business Case for Major Public Infrastructure Projects in Canada, University of Calgary

v Public Infrastructure Underinvestment: The Risk to Canada's Economic Growth, RCCAO

vi https://www.pbo-dpb.gc.ca/en/blog/news/RP-2122-003-S--canada-infrastructure-bank-spending-outlook--banque-infrastructure-canada-perspectives-depenses

vii Transforming Canada's energy future: The socio-economic impact of GE Hitachi SMRs

viii Bloomberg, How Hydrogen Became the Hottest Thing in Green Energy

ix National Strategy for Hydrogen, NRCAN

x Jobs for Tomorrow – Canada's Building Trades and Net Zero Emissions

xi Timbilla: Now is exactly the time for Canada to build high-speed rail, Ottawa Citizen

xii https://www.toronto.ca/city-government/accountability-operations-customer-service/long-term-vision-plans-and-strategies/community-benefits-framework/

xiii https://vancouver.ca/people-programs/community-benefit-agreements.aspx

xiv https://buildingtrades.ca/wp-content/uploads/2021/04/EN_CBTU-CBAs-Report.pdf

xv https://buildingtrades.ca/wp-content/uploads/2021/03/Canadas-Building-Trade-Unions-Financial-Projection-2.pdf