

Global Infrastructure Investor Association

Canada National Infrastructure Assessment Consultation Response

Wednesday 30th June 2021

1. About GIIA

Global Infrastructure Investor Association (GIIA) is the membership body for the world's leading investors in infrastructure, and advisors to the sector, who collectively represent nearly US\$1 trillion of infrastructure assets under management across 66 countries. Our members are investing today to provide the smart, sustainable, and innovative infrastructure needed for our communities and economies to thrive.

The investor member base of GIIA is diverse and ranges from fund managers, pension funds, insurers, corporate investors and sovereign wealth funds (a list of GIIA members can be found at <http://giia.net/membership>).

In Canada, GIIA members are responsible for:

- 63 investments worth \$25bn across Utilities, Renewables, Transport and Social infrastructure.
- \$15bn of investments in energy and utilities with a capacity of 11GW across a network transmission grid of 50,000km which provides 10% of Canada's energy demands.
- 6 ports with a Twenty-foot Equivalent Unit of 5.6million.
- Furthermore, in a recent survey conducted by GIIA, Canada received a positive outlook for investors for the opportunity and attractiveness of the market¹

2. The Canadian Infrastructure Gap

Infrastructure investment stimulates long-term sustainable growth, increases the number of jobs in the economy and returns multiples of the original investment by growing GDP. The Boston Consulting Group estimates that each \$1tn invested into infrastructure has the potential to create over 3 million jobs in the span of five years² and, according to the Washington-based Economic Policy Institute, infrastructure investment has an output multiplier of 1.57, meaning that every 1 US dollar spent on infrastructure returns US\$1.57 in GDP³.

The investment gap in economic infrastructure will amount to \$5.5tn (£4.4tn) globally between 2017 and 2035, according to the McKinsey Global Institute¹. Other estimates suggest that the gap is even starker. Oxford Economics forecasts a cumulative shortfall of \$15tn (£11.9bn) between 2016 and 2040². The scale of the finance required highlights the critical role that private investment will have to play if this gap is to be filled.

Canada's infrastructure deficit is currently over \$150bn, with water and wastewater alone requiring \$50bn to renew infrastructure in poor and very poor condition, according to The Federation of Canadian Municipalities.⁴ The impact of climate change on asset resilience also plays a part in exacerbating the funding pressures on Canadian infrastructure. The 2013 floods

¹ Alvarez and Marsal, GIIA, Q2 2021 Pulse Survey – Infrastructure Pulse Americas, (2021) [URL](#)

² Boston Consulting Group, A jobs-centric approach to infrastructure investment, (2017) [URL](#)

³ Economic Policy Institute, The potential macroeconomic benefits from increasing infrastructure investment, (2017) [URL](#)

⁴ Canadian Union of Public Employees, Public Infrastructure builds a sustainable, equitable future, (2019), [URL](#)

cost Alberta and Toronto \$3bn in public spending, with further estimates showing that the annual cost of catastrophe will rise to \$20bn annually in 2050.⁵

Added to this, the Office of the Parliamentary Budget Officer states that Canada will report a budget deficit of C\$363 billion, or 17% of gross domestic product, in the fiscal year that ended March 31⁶ following the public spending response to the pandemic.

GIIA's Global Infrastructure Index research of 20,000 citizens from 27 different countries also shows that overall, 54% of respondents agreed that Canada was not doing enough to meet the country's infrastructure needs and 67% believed that investing in infrastructure should be prioritised as a key part of the recovery to the pandemic⁷. Moreover, challenges in designing, executing and operating infrastructure involve multiple levels of government which creates imbalance and inefficiency. Currently, provinces and cities collect over 60% of revenue from taxation but build 90% of public infrastructure⁸.

It is clear that the public sector will be unable to meet the infrastructure funding gap, and the needs of Canadian citizens alone. Private investment offers part of the solution.

3. Requirements to leverage private capital in infrastructure in Canada

Canada's pension funds include the top 6 of the 20 largest pension fund infrastructure investors in the world. However, these funds invest less than 15% of their infrastructure portfolio within Canada itself.⁹ There are various reasons for this, including a perceived absence of investible projects which provide attractive returns, insufficient pipeline of larger scale projects to attract major investors, regulatory constraints and an approval process which is unpredictable and time consuming for investors. These issues need to be addressed in order to enable a more welcome and attractive investment environment for private investment in Canadian infrastructure¹⁰.

There are four areas that GIIA investors believe that the Federal Government should be focussed on as part of the National Infrastructure Assessment process:

- 1) The need for an investable pipeline to attract private capital
 - The Federal Government should seek to replicate the work being done by Infrastructure Ontario¹¹ at the Federal level, to showcase an investable project pipeline and provide clarity on Canada's willingness and openness to work with private investors to ensure there is adequate competition for projects.
 - In the UK for example, the UK Treasury has, in the past, laid out a series of 5-year plans detailing a comprehensive pipeline of infrastructure investments in public and private sector projects running from 2016 through 2021. This map contained 600 projects with a combined value of £425bn which gave investors a strategic view of planned investments.¹²

⁵ Canadian Union of Public Employees, Public Infrastructure builds a sustainable, equitable future, (2019), [URL](#)

⁶ Bloomberg, Trudeau will add to record debt (2021), [URL](#)

⁷ GIIA, Global Infrastructure Index (2020), [URL](#)

⁸ Canadian Union of Public Employees, Public Infrastructure builds a sustainable, equitable future, (2019), [URL](#)

⁹ Boston Consulting Group, 15 Things to Know about Canadas Infrastructure, (2020) [URL](#)

¹⁰ Ibid [URL](#)

¹¹ Infrastructure Ontario, [URL](#)

¹² Ibid [URL](#)

- Australia takes a data driven approach to their prioritisation and recommendation process with Infrastructure Australia¹³. They perform assessments of nominated projects and include multiple levels of analysis to make it easier to rank the importance of projects to the Australian economy. Furthermore, Infrastructure Australia develops the Infrastructure Priority List¹⁴ which ranks nationally significant investments.

2) Stable policy and regulatory frameworks

- Policy and regulatory certainty are key to ensuring that stable and predictable returns on investment can be achieved over the long term. Investors need clear and consistent advice to be given to regulators in core markets to ensure that investment returns, and consumer interests are both met fairly and that there is a robust and merits-based appeals process in the unlikely event of a dispute¹⁵.
- In the UK the Infrastructure and Projects Authority exists as the government's centre of expertise for infrastructure and major projects, reporting to the Cabinet Office and HM Treasury and acting as an interlocutor between the public and private sectors on infrastructure project delivery.
- In Australia there is a one stop shop for approvals, the Major Projects Approval Agency, which serves as a single point of entry into government regulations helping investors understand and navigate regulatory obligations.¹⁶
- An independent Canadian infrastructure projects agency could help provide advice and guidance to government on the steps needed to encourage and enable much-needed private investment in Canadian infrastructure. This could sit alongside the CIB and form an independent advisory function to help investors to navigate regulations, in the same way as the Major Project's Authority in Australia. Alternatively, it could be established as an arm of the Canadian Federal Government, with sufficient overall independence and oversight and with a mandate to work with institutions like the CIB to broaden the offer to investors in this area.

3) Build on successes of the PPP model in Canada

- The use of PPPs in infrastructure projects is generally viewed very favourably in Canada. The PPP model has been used to successfully deliver dozens of high-value, high-profile social, transportation, water and wastewater and energy projects in Canada and generally there has been a good track record of delivering the relevant projects on time and on budget.
- One of the aspects of Canadian PPPs which supports their popularity is that they are based, for the most part, on availability payments rather than revenue-based payment mechanisms that require the market and its lenders to assume volume risk.
- As well, transferring the design, construction, and materials procurement risk to the private sector, while the public sector focuses on output specifications and major permitting risks, allows for each side to do what they do best, thus increasing the overall efficiency of the process. Finally, as the PPP model has evolved in Canada, government infrastructure procurement agencies have refined their agreements and

¹³ Infrastructure Australia (2021), [URL](#)

¹⁴ Infrastructure Australia, Infrastructure Priority List (2021), [URL](#)

¹⁵ GIIA, The Future of UK Infrastructure, (2021) [URL](#)

¹⁶ Boston Consulting Group, 15 Things to Know about Canadas Infrastructure, (2020) [URL](#)

risk transfer mechanisms and have encouraged the entry of more participants into the bidding process in order to ensure that there is more opportunity for the public-sector to participate in potential upsides and to drive leaner, more competitive bids from private-sector participants.

- The success of the Canadian model over the last 18 years or so and the ability of the contractual PPP model to incentivize particular behaviours and public sector objectives through specific performance regimes and payment mechanisms provide strong evidence that the model will continue to be one of the preferred approaches to encourage private sector participation in the delivery of public facilities and services.
- However, there remains scope to increase the role of other infrastructure funding models in delivering Canadian infrastructure and, more widely, to learn from best practice around the world:
 - a) **Cap and Floor model** - the floor is set at a level that ensures that an asset can cover its annual operating expenditure and service its debt. The cap is set to ensure that equity investors receive sufficient, but not excessive, returns. The advantage of this model for investors is that their cost of construction, debt and fixed costs are guaranteed by the floor thus guaranteeing stable returns from the outset. Consumers also benefit because returns are seen to be limited and not 'excessive'. It has been thus far extensively used in the electricity interconnectors industry in Belgium, France, Norway, Ireland, Denmark and Germany.
 - b) **Contracts for Difference** – incentivises investment by providing developers of projects with high upfront costs and long lifetimes with direct protection from volatile wholesale prices.
 - c) **Regulated Asset Base model** – incentivises private investment into public projects by providing a secure payback and return on investment for developers whilst providing new improved services to consumers.

4) The role of Canada's Infrastructure Bank

- The Canada Infrastructure Bank is an important tool with which to leverage much needed private investment in Canadian infrastructure, but, for a number of reasons, has so far been unable to meet expectations in terms of the number of projects delivered and the funds allocated to these from private sources¹⁷.
- GIIA investors believe that these issues have arisen mainly as a result of a disconnect between the Bank's policy objectives and project delivery teams. The Bank has also suffered from a perceived weakness in stakeholder engagement, investors have felt that the Bank has not actively sought out the advice and input of the private sector and that this has hampered the performance of the crowding-in objectives of the Bank.
- The main questions for the Federal Government during the NIA process should be to understand how the CIB will act as a catalyst between the needs of private funds and policy objectives of government going forwards. There is also a question around how the Bank identifies projects and structures these so that they are made attractive to private investors.

5) Government ownership

¹⁷ Office of the Parliamentary Budget Officer, Canada Infrastructure Bank (March 2021) [URL](#)

- Perhaps the greatest obstacle to private investment in Canadian infrastructure projects is the public ownership of existing (brownfield) infrastructure assets which leaves private investors with fewer options for where to invest. The Federal Government should use the opportunity of the National Infrastructure Assessment to make a clear commitment to public-private concession models in areas such as airports, ports, roads, telecommunications, water infrastructure and land registries where there is an opportunity to relinquish state control and thereby reduce the burden on public budgets from operation and maintenance costs.
- Here, the Federal Government could learn lessons from the asset recycling schemes operated in Australia where states can lease, design, build, operate and maintain contracts to the private sector. This generates new revenue for the public sector whilst boosting investment in infrastructure. The critical element is that State and local governments maintain ownership of the leased assets and are able to stipulate minimum levels of operating and maintenance standards as well as employment opportunities. Proceeds from such leases can be invested in new and perhaps less commercially viable infrastructure, for instance in rural broadband roll out.
- Indeed, in Australia there is a federal bonus payment equal to 15% of the net lease proceeds invested in infrastructure – the Australian program used around \$3bn of federal funds and generated over \$20bn in infrastructure investment.
- However, areas such as Queensland which have not taken full advantage of the scheme, have not benefitted from the opportunity. In 2017 the State of Queensland had to fund a \$5.4bn Cross River Rail project, growing that state's public debt to \$90bn.¹⁸

4. Private investment to achieve zero carbon emissions

In 2021, the Business Council of Canada (BCC) published Clean Growth 3.0 which sets out the steps needed to reach the Net Zero target by 2050 in Canada for both public and private actors. The BCC is clear that sustained environmental changes are only possible with both public *and* private investment.¹⁹

Their report calls on Canada's government to develop a clear and long-term emissions reduction policy to help businesses to plan for the transition and the need to innovate in clean technology. Clean Growth 3.0 outlines 6 core principles which will help Canada achieve NetZero:

- Close cooperation between public and private sectors
- Long term policy stability to incentivise investment in existing and emerging clean technologies
- Recognise the role that energy sector plays in the transition
- Full transparency on cost implications of Canada's climate and energy policies
- Partnerships with indigenous communities
- Embrace climate resilience and adaption strategies by working with provincial and municipal governments to develop a climate adaptation framework.²⁰

¹⁸ Financial Review, Asset recycling 2.0 the way to kick start the economy, (2019) [URL](#)

¹⁹ Business Council of Canada, Clean Growth 3.0, (2021) [URL](#)

²⁰ Ibid, [URL](#)

The plan also outlines that Canada's government must further make use of public private partnerships to substantially boost investment in low-greenhouse gas technologies and it is important that the government gives clear signals that it is willing to facilitate the necessary investments to reduce emissions. The government's role will need to gradually change to become a predictable and long-term partner that enables investment and helps to de-risk emerging opportunities for investors.

In similar lines, Prime Minister of Canada, Justin Trudeau expressed that "In order to create good jobs, grow the economy and strengthen the middle class, the private and public sectors must work together as partners", and that the government expected ultimately to attract some \$140 billion in private capital to the Infrastructure Bank.²¹

To enhance this, the government needs to develop a policy framework that provides clarity on carbon policy and regulation, creates stable revenues for investors and includes investment incentives and clear guidance on the federal government's role in supporting strategic investments in emerging technologies.

5. GIIA member Canadian case studies

Private investment in Canadian infrastructure has delivered significant benefits over recent years.

Boralex – CDPQ

- In 2017, CDPQ acquired an interest in Boralex worth \$231m²²
- Boralex build and operate renewable power facilities in Canada, France and the US and is a leader in onshore wind within Canada.
- With the investment from private sources, Boralex has been able to expand its operations in Canada and push its generating capacity from 1,739MW in 2017 to 2,400MW.
- In 2019 Boralex announced a strategic plan for 2023 to increase their overall capacity to 2.8GW in Canada.²³

Pattern Energy - PSP

- PSP acquired a majority share of Pattern Energy in 2017.²⁴
- Pattern Canada is the country's largest operator of wind power with over 1.8GW installed capacity across 10 windfarms which could supply 600,000 homes each year.²⁵
- With the investment from private sources, Pattern announced a strategic initiative for major expansion, Pattern Development 2.0 with up to \$1bn in new capital commitment.
- In 2018, PSP helped Pattern Energy acquire a 147MW wind farm in Quebec.²⁶

Coastal Gas Link

- AIMCo, KKR and NPS have financed the Coastal Gas Link development in 2020.
- The development project comprises of 670km of natural gas pipeline and once completed the pipeline will have an initial capacity of 2.1bn cubic feet per day.

²¹ Ibid, [URL](#)

²² Inframation News, Boralex Acquisition, (2017) [URL](#)

²³ Alpora, Boralex INC. ,(2021) [URL](#)

²⁴ Benefits Canada, PSP To Become Largest Shareholder of US Renewables Energy Company, (2017) [URL](#)

²⁵ Pattern Energy, Canada Portfolio, (2021) [URL](#)

²⁶ Invest PSP, Pattern Energy and PSP Investment Acquire 147MW Mont Sainte-Marguerite Wind Facility in Quebec, (2018) [URL](#)

- This project will connect Dawson Creek to LNG Canada facility and reduce emissions by 60-90m tonnes per year, equivalent to 20-40 coal plants being shut down.²⁷

6. European Examples

British water privatisation

- Over £150bn has been invested in British water since privatisation, with Ofwat estimating that bills have become £110 cheaper per year than if the companies had remained in the public sector.²⁸
- International comparisons show that the UK has the lowest prices when compared to the likes of Belgium, Switzerland, Finland and the Netherlands.
- Furthermore, productivity within water and sewage has risen 2.1% since privatisation with a total improvement of 64%.²⁹

Open Grid Europe

- A consortium led by Macquarie acquired OGE from E.ON. for \$3,5bn in 2012.³⁰
- OGE was the gas transmission part of E.ON and comprises of 12,000km of network.
- Since 2012 OGE has invested \$3bn in the expansion of its gas infrastructure, such as the Werne compressor station which allows the reversal of gas flows and the construction of a 14 km loop in Bavaria.^{31,32}
- Furthermore, with the continued investment from its private sector partners, OGE has been able to look ahead to future proofing its network with a 216km pipeline conversion from L-Gas to H-gas.³³

²⁷ Inframation News, Coastal GasLink Pipeline Acquisition, (2020) [URL](#)

²⁸ GIIA, The Future of Regulation, (2020) [URL](#)

²⁹ *Ibid*

³⁰ Inframation News, Open Grid Acquisition, (2012) [URL](#)

³¹ *Ibid*

³² Open Grid Europe, Our History, (2021) [URL](#)

³³ *Ibid*