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INVESTING IN IMPACT

A Submission to the Minister of Intergovernmental Affairs, Infrastructure and Communities' Legislative Review of *the Canada Infrastructure Bank Act*

CIB BIC

Canada Infrastructure Bank | Banque de l'infrastructure du Canada

Table of Contents

Executive Summary

Canada Infrastructure Bank | Banque de l’infrastructure du Canada

Executive Summary

Infrastructure matters to Canadians because it connects us. Infrastructure projects have shaped our nation and propelled our economy forward – moving people, information, energy and materials to support our shared prosperity.

The Canada Infrastructure Bank (CIB) was established to help get infrastructure built. As expressed in the Minister of Infrastructure and Communities' 2021 Statement of Priorities and Accountabilities (SPA):

> *"The CIB helps public dollars go further by investing in Revenue-generating infrastructure projects in the public interest and developing innovative financing tools. The goal is getting more infrastructure built across the country."*
>
> **Minister's SPA**

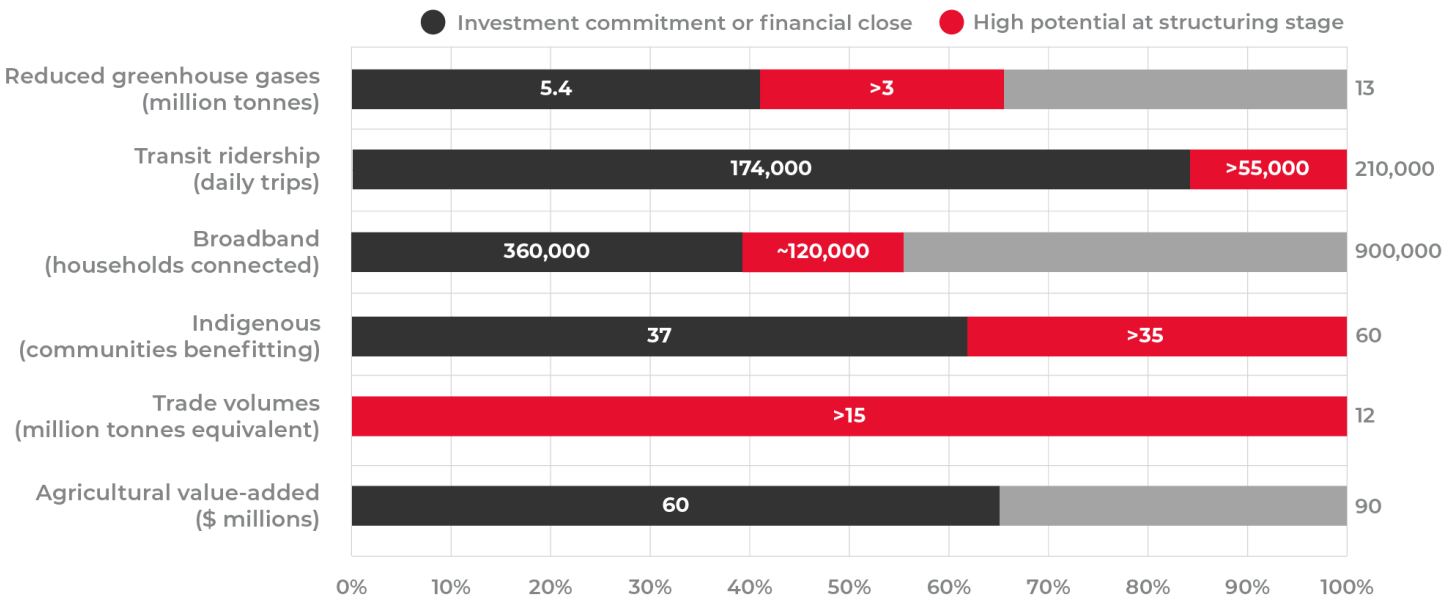
As the CIB reaches the milestone of five years since its creation, there has been a significant increase in the pace and volume of its investments in infrastructure to benefit Canadians' lives. The CIB views this legislative review as an important opportunity to affirm its mandate and cement its foundations for long-term impact. The CIB views its governing legislation as balancing accountable governance with appropriate flexibility for crowding in private and institutional capital to finance infrastructure in the public interest.

The next decade's challenges require Canada to move quickly in order to remain competitive with other economies. Canada must accelerate infrastructure investment to address urgent priorities, including transitioning to a net-zero economy, strengthening supply chain resilience, diversifying energy sources, enabling an increasingly digital economy, and closing the opportunity gap for Indigenous communities from coast to coast to coast.

Canada needs both public and private investment to meet our needs. The scale of Canada's challenges requires investments in infrastructure that would strain governments' capacity to finance without mobilizing private capital. The private sector has been long involved in Canadian infrastructure that serves vital public needs – from railways to port operations, from electricity generation and transmission to telecommunications. Involving private capital in delivering infrastructure leverages specialized experience and recognizes that addressing Canada's infrastructure deficit cannot be achieved by governments alone.

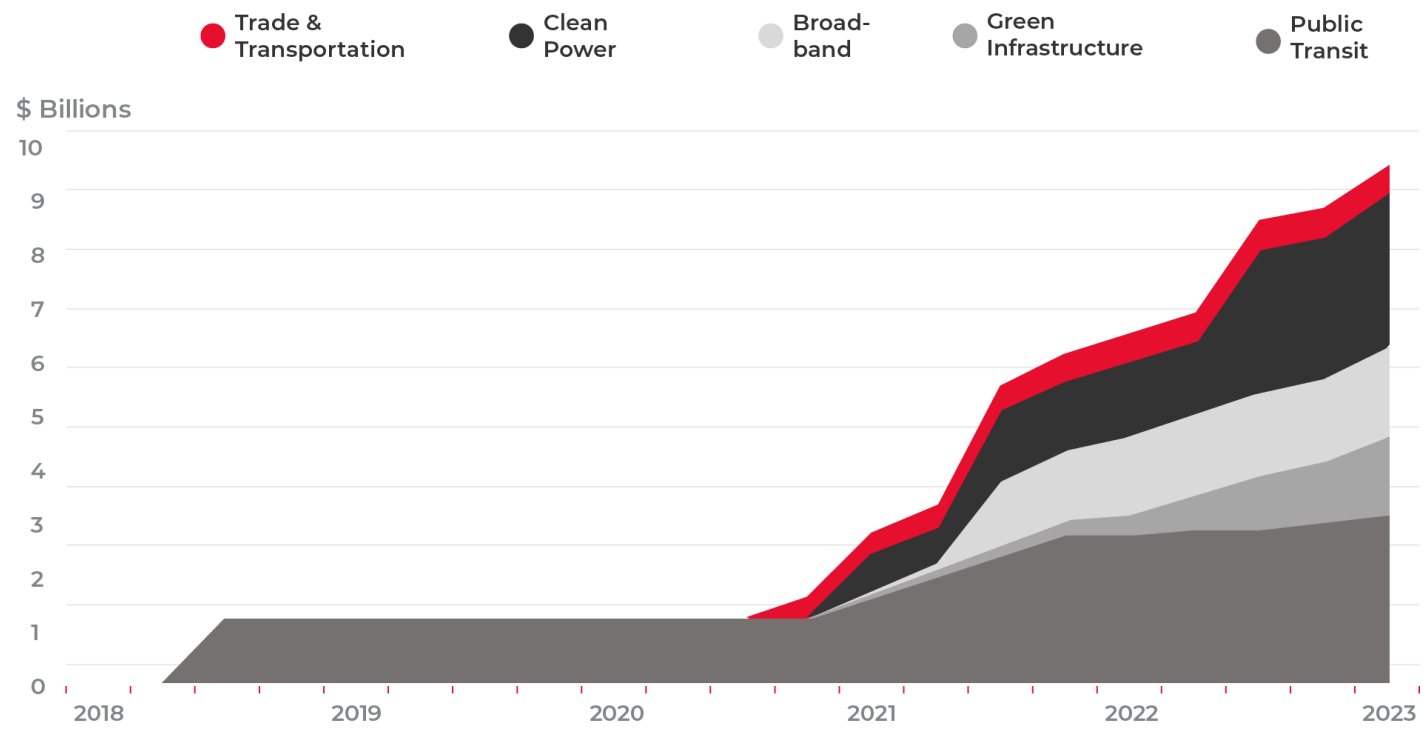
As shown by its public impact outcomes and increases in its investment commitments, the CIB has accelerated progress on these fronts. The CIB has demonstrated its value as a unique institution that gets critical infrastructure built quicker to improve the lives of Canadians.

Progress towards 2026-27 outcome targets



Cumulative CIB investment commitments

(By priority sector and calendar date of investment commitment)



CIB's total announced investment commitments at fiscal year-end

In Budget 2023, the Government of Canada increased the targets for investment in clean power and green infrastructure, identified the CIB as the Government of Canada's primary financing tool for supporting clean electricity generation, transmission and storage, and announced that the CIB will provide loans to Indigenous communities to support them in purchasing equity stakes in infrastructure projects in which the Bank is also investing. Each of these measures underscore the CIB's evolution to play a critical role in delivering on policy priorities.

What is defined as "infrastructure" will evolve with new technology and changing public needs. Just as yesterday's priorities for infrastructure are different from those today, today's needs will not be tomorrow's. Looking ahead, Canada will need infrastructure to enhance the resilience of our built environment and help Canadians adapt to a changing climate. In an era of global competition, new infrastructure will be critical to grow Canada's economy and enhance export opportunities for Canadian businesses.

The CIB addresses many of the big barriers that hinder building the infrastructure that Canada needs. The CIB invests only in projects that may not have been built, would have been significantly delayed or would have been delivered at a smaller scale without the CIB's financing. Countries worldwide are establishing infrastructure banks and green banks to crowd in private capital to meet our 21st century challenges. The OECD highlights the CIB as a leading model for catalyzing private investment and aligning stakeholders to get projects built – particularly to support the post-pandemic recovery and facilitate the energy transition.

The CIB plays a particularly important role in helping private investors overcome the uncertainty facing many energy transition projects in Canada. Proponents face risk around the premium customers will pay for low-carbon fuels, and how regulation in different

jurisdictions will influence markets. Many other advanced economies are pursuing "green" industrial policy at significant fiscal cost – for example, the tax credits for clean energy under the U.S. Inflation Reduction Act. The CIB's strategic financing tools crowd-in private capital to decarbonize key sectors, helping Canada respond to competition for green investment.

The CIB's experts work with proponents to develop bespoke, innovative financial tools to address the barriers that hold up infrastructure projects, crowding in private sector investment. The CIB uses the right financial structure to address the particular barrier facing an investment, drawing from its available toolkit under its governing legislation. The CIB tailors debt instruments to specific risks around a project's returns and will make equity investments in certain circumstances.

In this way, the CIB frees up public funds for other priorities and helps relieve balance sheet pressures for all orders of government. In contrast with an unrecoverable government grant, the CIB recovers its capital through repayment of its investment in a project. The CIB's financing also aligns incentives for cost-effective, on-time project delivery by private partners.

The CIB's Investment Framework features clear and transparent "guardrails" to ensure that new investments accelerate priority public impacts while minimizing fiscal impacts and targeting the CIB's capital to realize the greatest benefits for Canadians. The CIB's emphasis on structuring financing around some "market gap" avoids displacing private investment. If a project would yield sufficient financial returns to proceed without the CIB's financing, the CIB will not invest.

Establishing the CIB took time. After an initial phase of standing up the organization, building relationships and identifying potential partners and projects, the 2020 Growth Plan clarified the CIB's targets for a diverse project portfolio, and the Government of Canada streamlined the CIB's governance for making new investments.

As of March 31, 2023, the CIB has committed $9.7 billion to 46 projects with a total capital value of $27 billion. The CIB has reached financial close on 42 projects, has 29 projects in active construction, and one investment in operations. These projects will yield public outcomes for Canadians, as measured by expanded broadband availability, reduced greenhouse gas emissions, greater transit ridership, increased agricultural value added, and the number of Indigenous communities benefiting from investments.

The CIB's investments have attracted $8.6 billion in private sector and institutional financing. The CIB has been successful in this upfront attraction of private capital because of its

approach to addressing barriers, allocating risks and aligning incentives with partners.

And, because the CIB provides financing as opposed to grants, interest and principal repayments back to the CIB over time will fund an increasing portion of the CIB's operating expenses and investments. This means an even more pronounced reduction in burden on public sector balance sheets than if governments funded these investments through grants or other transfers. In short, this means that public dollars go further as they are multiplied by private sector co-investment.

As projects enter service, generate revenues and repay the CIB's upfront financing with interest, the CIB will redeploy this returned capital to new infrastructure. This allows the CIB to amplify its impact, continually growing the value of new infrastructure from the CIB's initial capital allocation. In contrast with the exhaustion of grant funding once dispersed, the CIB will sustain its ability to strategically finance Canada's future infrastructure needs into decades to come.

The CIB's advisory function is designed to help proponents to advance complex, transformation projects through development. These engagements also build the CIB's project pipeline. As shown by its leadership developing High Frequency Rail for the Toronto-Quebec City corridor and the Atlantic Loop electricity interconnection project, the CIB can uniquely provide strategic advice across governments, support project proponents and help align stakeholders. The CIB's advisory function helps accelerate languishing projects to investment decisions and delivery, as well as building proponents' own capacities.

The CIB will continue to evolve, targeting new infrastructure based on the Government of Canada's priorities and technological advances that open possibilities for a more prosperous, connected and sustainable country. The CIB remains continually engaged with private investors, commercial lenders and other potential partners from across the global and national ecosystem for infrastructure finance to understand appetite for investments in different project types and specific projects.

With its long-term investment horizon and necessarily far-sighted view on sustainable public benefits, the CIB is well-positioned to collaborate with stakeholders and spearhead project development on the most complex but transformation projects for our country. By making repayable investments in revenue-generating infrastructure, the CIB is building a more sustainable model of infrastructure financing that can continually redeploy its capital on new projects and pivot to Canada's emerging infrastructure needs.

01.

WHY GETTING MORE INFRASTRUCTURE BUILT MATTERS

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- Infrastructure matters for connecting Canadians, decarbonizing our economy, propelling economic growth, and ensuring Indigenous communities share in Canada's prosperity.
- Throughout Canada's history, both large and community-scale infrastructure projects have transformed our country, contributing to long-term, sustainable economic growth and making today's standards of living possible.
- Transitioning to clean energy and expanding opportunities to participate in Canadian society urgently require an accelerated build-out of infrastructure in our communities and an overhaul of our systems for moving people and goods, supplying energy and connecting to the Internet.
- Canada faces a particularly deep infrastructure deficit as reflected in the burgeoning public transit needs in Canadian cities, the scale of investment required to decarbonize energy supply and use across provinces and territories, the bottlenecks within critical trade corridors, and the many remote and Indigenous communities that lack clean water and energy or telecommunications services.
- Just as technological advances in transportation and telecommunications have changed what we define as "infrastructure", our definition of infrastructure must continue to evolve as Canada recognizes new needs – such as ensuring resilience to climate change – and identifies pressing priorities for public goods.

1.1 Why infrastructure matters

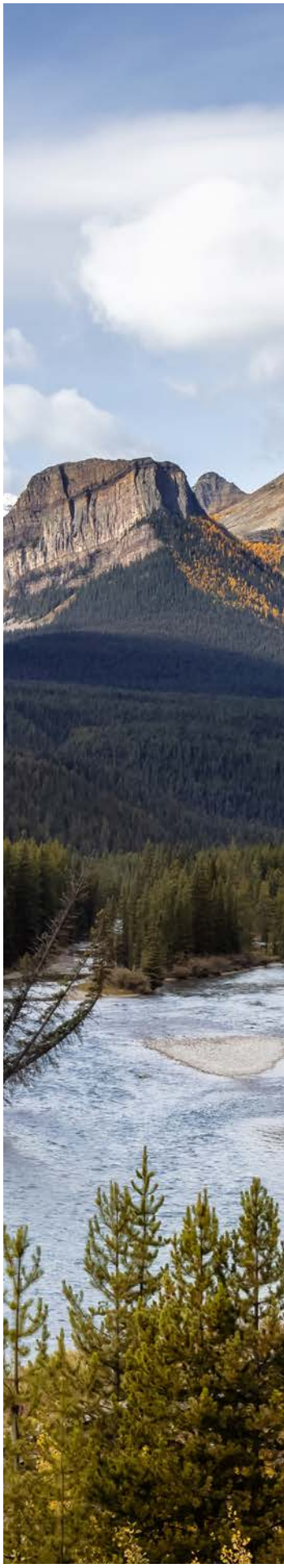
Infrastructure connects us. From the first roadways and ports, to railways and electrical grids, to telecommunications and the Internet – infrastructure has catapulted society forward, enhancing our resilience and prosperity along the way.

Over Canada's history, infrastructure projects have helped shape our nation and had an immense impact on our economic growth. The transcontinental railway was critical to Canada's Confederation, making agricultural trade a possibility and attracting a wave of immigrants who propelled our economy forward.

The St. Lawrence Seaway connected Quebec and Ontario to eight American states, opening a key trading hub and supply chain that since 1959 has transited over three billion tonnes of cargo.

The investments made in Vancouver's waterfront transformed it into Canada's gateway to the Asia-Pacific, providing increased trade, tourism and economic development in the region.

Whether it is investment in electricity systems or hydrogen, railways and public transit, when Canada invests in its infrastructure, it invests in its own potential.



1.2 Infrastructure connects Canadians

Today, Canada faces many pressing challenges. These include global challenges such as transitioning to a net-zero economy, strengthening supply chain resilience and diversifying energy sources, as well as domestic challenges such as enabling Canada's participation in an increasingly digital economy, addressing Canada's productivity gap, enhancing export

> *"The Association of School Transportation Services of British Columbia is focused on cutting emissions from our fleets and providing clean, safe transportation to the school children in our care. By partnering with the CIB, we are at the forefront in providing safe and emissions-free vehicles critical to transporting current and future generations of children."*
>
> **Frank Marasco,**
> Manager, Association of School Transportation Services of British Columbia

opportunities for Canadian businesses and closing the infrastructure gap in Indigenous communities from coast to coast to coast.

Responding to the challenges of this generation will require a concerted effort from all levels of government and includes deploying every lever at our disposal, including infrastructure. The quality of infrastructure assets defines possibilities for our society, and effective infrastructure investments drive economic growth and improve the quality of life.

For example:

- We can reduce congestion and harmful greenhouse gas emissions by investing in public transit, connecting Canadians to jobs, education and communities.

- We can help power our economy sustainability and cost-effectively by investing in clean power and diversifying Canada's energy sources.
- We can increase access to education, work and healthcare in remote and rural communities by investing in broadband networks.
- We can help Canadian families access healthy and affordable food by investing in modern agricultural infrastructure, like irrigation in our farmlands.
- We can enable increased trading opportunities for Canadian businesses and help fight supply-chain interruptions for consumers by investing in our ports, railways and trade corridors.

Investing in infrastructure helps us achieve our present goals while setting future generations up for success.

The importance of infrastructure to Canada's long-term, sustainable prosperity informs the purpose of the CIB, as set out in its governing legislation:

> *The purpose of the Bank is to invest, and seek to attract investment from private sector investors and institutional investors, in infrastructure projects in Canada or partly in Canada that will generate revenue and that will be in the public interest by, for example, supporting conditions that foster economic growth or by contributing to the sustainability of infrastructure in Canada.*[1]

[1] *Canada Infrastructure Bank Act*, SC 2017, c 20, s 403 at Section 6.

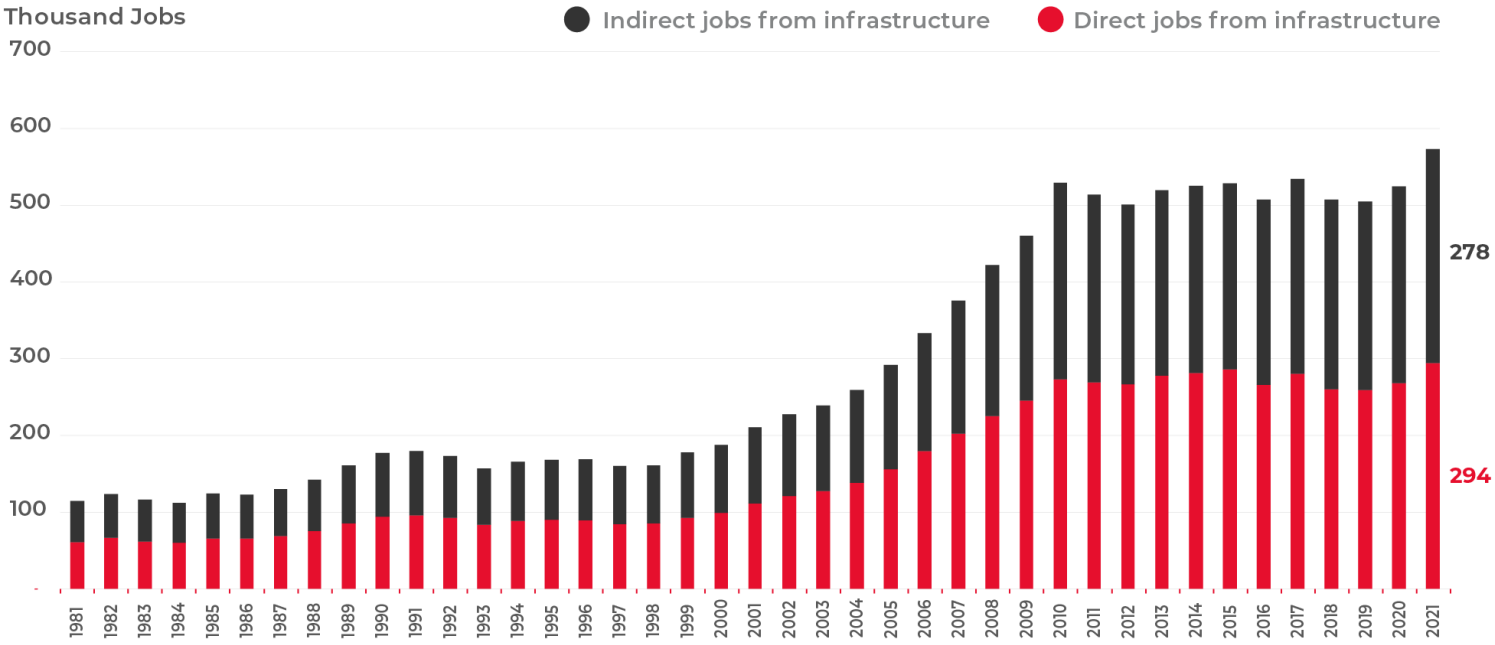
1.3 Building more infrastructure propels economic growth

Infrastructure creates economic growth – now and for decades to come.

Building and maintaining our shared infrastructure creates well-paying construction jobs. Statistics Canada estimates that investment in Infrastructure in 2021 directly employed over 294,000 workers, and indirectly supported a further 278,000 workers – representing 2.8% of Canada's labour force. CIB's projects are estimated to support 16,000 jobs through their construction.

> *"This commitment by the Canada Infrastructure Bank is a key milestone in the progress of our project towards its completion. This collaboration with this new partner confirms the national importance of our project, whose purpose is to support the growth of international trade for Canada."*
>
> **Sylvie Vachon,**
> President and CEO, Port of Montreal

Direct and indirect employment impacts from Canadian infrastructure investment



Source: Statistics Canada (Infrastructure Economic Accounts)

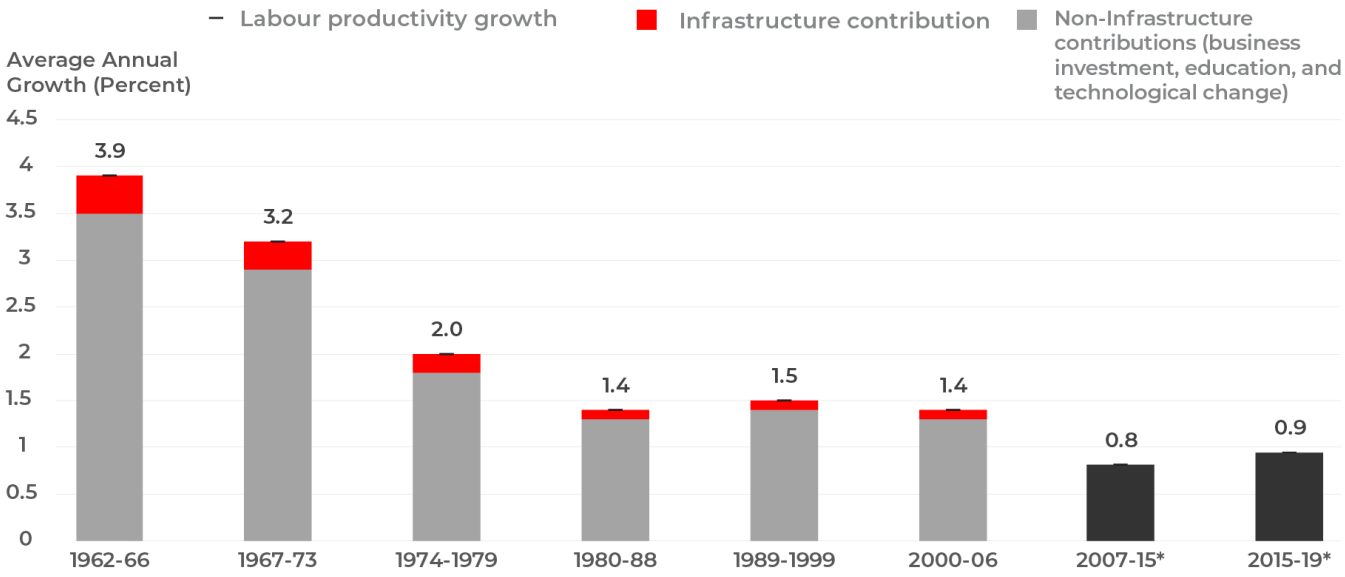
More importantly, infrastructure provides the constructive tissue of our economy, moving the people, information, energy and materials to where it needs to go to support our shared prosperity. Infrastructure projects drive economic growth both through their construction and, most importantly, the economic activity that these new assets enable.

Building the right infrastructure also enables higher productivity for the Canadian economy. The contribution of infrastructure to productivity (the value-added per hour worked) results from the character of these assets: infrastructure enables time-sensitive connections between people, information, energy and material, facilitating economic activity by efficiently bringing workers and inputs for production together. Building the right infrastructure allows Canadian businesses to produce goods and services more efficiently and seize export opportunities in new markets.

Productivity growth – growth in the value of goods and services per worker-hour – is the long-run driver of Canadian living standards.

Statistics Canada analysis shows that infrastructure drove approximately 10% of Canadian productivity growth between 1962 and 2006.[2] Large investments in infrastructure during the 1960s coincided with high productivity growth and, since 1974, infrastructure investment accounted for effectively all productivity growth not as a result from business investment or a more educated labour force.

Infrastructure contribution to Canadian labour productivity growth since 1962



** Infrastructure contribution not estimated for 2007-15 and 2015-19. Only labour productivity growth shown.*

Sources: Statistics Canada (Gu & Macdonald, and Productivity Measures)

[2] Wulong Gu and Ryan Macdonald (2009), "The impact of public infrastructure on Canadian multifactor productivity estimates," Statistics Canada. Available online: https://publications.gc.ca/site/eng/9.565364/publication.html

1.4 Unprecedented infrastructure investment required to meet our net-zero goals

> *"The success of our economy, public health, and quality of life all depend on Edmonton making a shift to a low carbon future which is why this investment by the Canada Infrastructure Bank is so crucial. In addition to supporting our economic recovery, this investment in zero-emission public transit and greener buildings helps ensure Edmonton is making tangible gains in its goal to become a competitive, low-carbon City of the future."*
>
> **Don Iveson,**
> Former Mayor, City of Edmonton

Reducing emissions from Canada's economy to net-zero by 2050 requires a transformation of how industries and household access energy and make products. This means investments in new infrastructure to generate and deliver clean power where it's needed – including for growing uses from electrifying the vehicles we drive and the systems for heating of our buildings. This also means nationwide networks for reliably providing new forms of clean fuels – like hydrogen – and infrastructure that captures emissions from industrial sources and transporting these to be permanently stored.

The 2030 Emission Reduction Plan projects that pathways like electrification and switching to clean fuels and hydrogen, along with storage and use of captured carbon, will drive Canada's greenhouse gas reductions to meet our 2030 target. Realizing these target reductions for 2030 means accelerating the build-out of the necessary infrastructure. Achieving net-zero by 2050 will mean going even further.

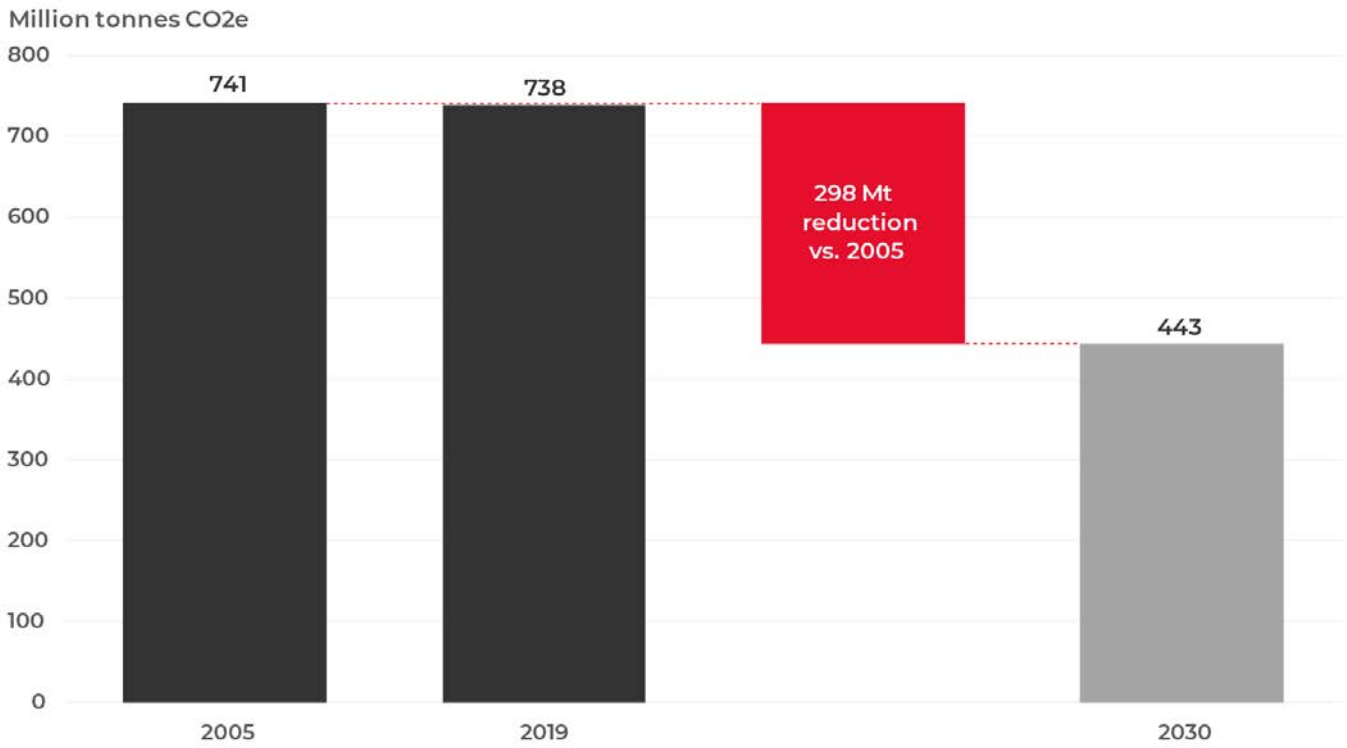
Research by Queen's University's Institute for Sustainable Finance estimates a required investment of $200 billion to achieve Canada's stated greenhouse gas reduction target of 40-45% below 2005 levels by 2030.[3] RBC estimates that Canada requires a cumulative

[3] Simon Martin and Ryan Riordan (2021), *A Capital Mobilization Plan Refresh: Placing Revised Canadian Commitments in Context,* Institute for Sustainable Finance at the Smith School of Business, Queen's University. Available online: https://smith.queensu.ca/centres/isf/research/cmp.php

investment of $2 trillion over the next three decades – approximately $80 billion per year – in order to achieve a net-zero economy by 2050.[4] Today, only around $20 billion is invested annually in new electricity infrastructure.

Underscoring the importance of the CIB to financing Canada's net-zero transition, the Government of Canada in Budget 2023 announced that the CIB "will invest at least $10 billion through its Clean Power priority area, and at least $10 billion through its Green Infrastructure priority area." Along with these new investment targets, the government also positioned the CIB as the government's primary financing tool for supporting clean electricity generation, transmission, and storage projects.[5]

Canada's Greenhouse Gas Emissions and 2030 Target



Source: Environment and Climate Change Canada (Canada's Greenhouse Gas Inventory and 2030 Emissions Reduction Plan)

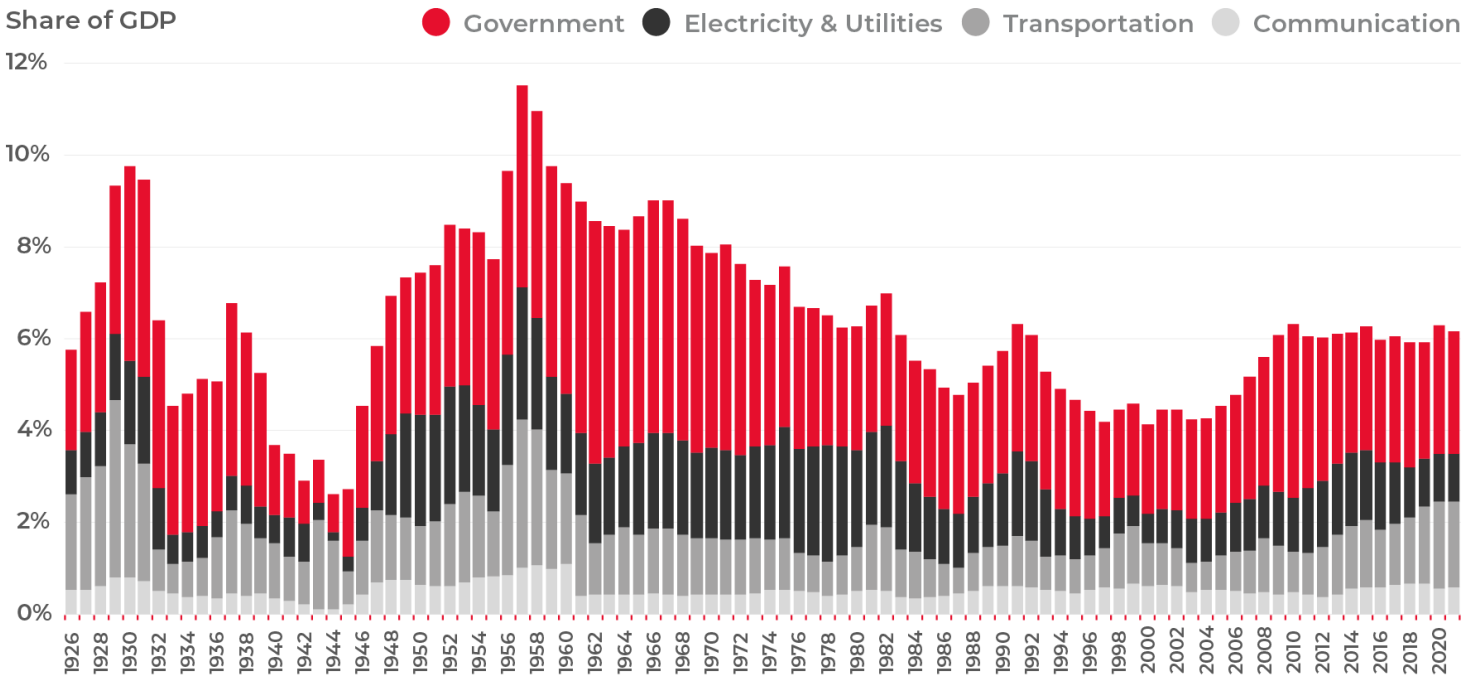
[4] Royal Bank of Canada (2022), *Financing Greener Growth: Canada's Need to Accelerate Investment*. Available online: https://www.rbccm.com/en/insights/story.page?dcr=templatedata/article/insights/data/2022/11/financing_greener_growth

[5] Government of Canada (2023), *Budget 2023 – A Made-in-Canada Plan: Strong Middle Class, Affordable Economy, Healthy Future*. Available online: https://www.budget.canada.ca/2023/report-rapport/toc-tdm-en.html

1.5 Canada must address our growing infrastructure deficit

The last period of significant investment in Canadian infrastructure occurred during the late 1950s and 1960s when investment in fixed capital investment by government, utilities, transportation and communication sectors reached a peak of 11.5% of GDP. In the decades since, Canada's investment in infrastructure waned to a trough of 4% of GDP in 2000, although rebounding to a pace of 6% of GDP in the past decade.

Canadian Infrastructure Investment* as Share of GDP from 1962-2021



** Reflects annual Canada-wide Fixed Capital Investment from in Non-Residential Structures, Engineering Construction and Machinery & Equipment by Government, Electricity & Utilities, Transportation, and Communications Sectors*

Source: Statistics Canada (Non-Residential Fixed Capital Stock, Historical Statistics of Canada)

> *We have real success stories to build on and a big opportunity for governments to do more, through the CIB and other partners, to leverage investment toward the scale of investment our country needs. To be clear, it will never displace the need for public investment, but we can and must be smart about the outcomes we should expect from that investment, and I'd argue maximizing its catalytic potential must be one."*
>
> **Carole Saab,**
> CEO Federation of Canadian Municipalities

There is widespread consensus that this track record of investment has left Canada with a significant infrastructure deficit. Various studies have sought to quantify Canada's infrastructure deficit with estimates ranging from $110 billion to $270 billion.[6] The maintenance backlog for infrastructure that is integral to connecting Canadians means heightened risk of interruptions and higher costs for putting food on our tables and powering our communities.

However, Canada also faces an immediate need to accelerate infrastructure investment in order to decarbonize our energy consumption. This will require shifting many end-uses – such as vehicles and home heating – to use clean fuels or electricity instead of fossil fuels while also decarbonizing power generation.

Looking ahead, continued growth for Canada's communities means infrastructure investment is essential. For example, cities need large investments in public transit infrastructure to facilitate new ridership and continue to reduce travel times for commuters. Rural communities need digital connections for access to economic opportunity and critical social services. All communities need everyday access to clean, reliable electricity and water.

Given the extent of the need, it will take a mix of public, private and institutional investment to make significant progress. Moreover, in many sectors there is potential to apply models that tap into revenue streams and user pay features and can draw on private expertise to better allocate risk and lessen the overall burden on taxpayers. The CIB is purpose-built to facilitate partnerships that can deliver this needed innovation.

[6] Darwin Smith and Keith Halliday (2020), *15 Things to Know about Canadian Infrastructure*, BCG Centre for the Future of Canada. Available online: https://www.bcg.com/15-things-to-know-about-canadian-infrastructure

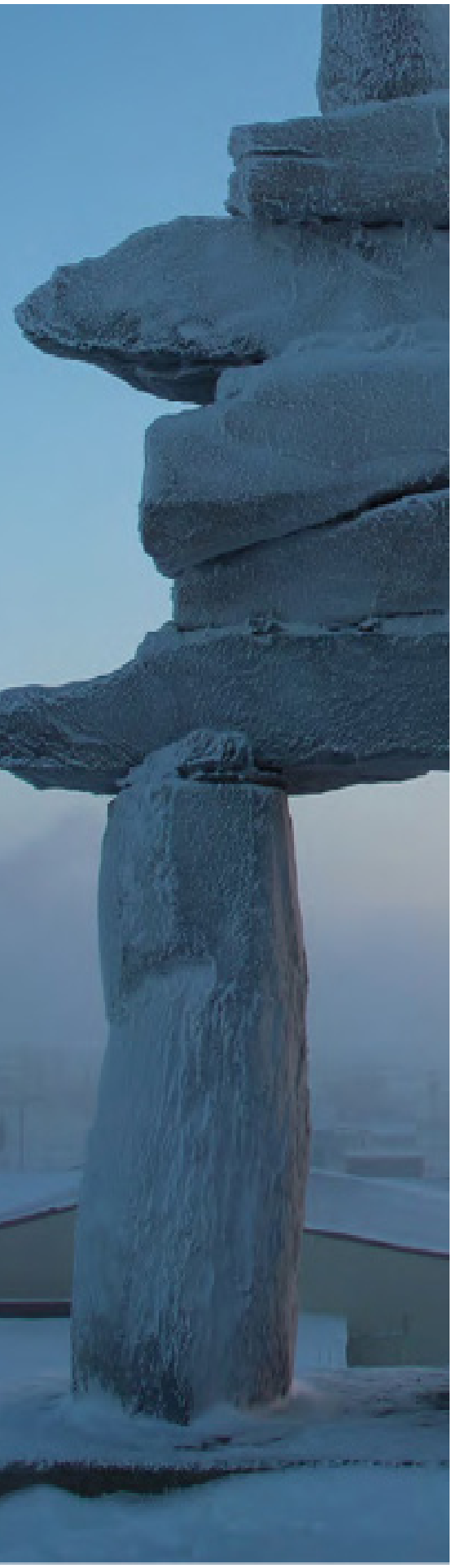
1.6 The importance of closing the Indigenous infrastructure deficit

> *"The Canada Infrastructure Bank (CIB) Initiative is a major step toward closing the infrastructure gap in First Nations, while prioritizing green energy projects in the overall effort toward climate action. I support the efforts of the CIB to work directly with First Nations in meaningful and collaborative ways that will lead to much needed investments toward better infrastructure and sustainable economic growth."*
>
> **Perry Bellegarde,**
> Assembly of First Nations, National Chief

Infrastructure is important to all Canadians as having reliable, affordable and sustainable infrastructure improves lives and increases well-being of citizens. Indigenous communities face a disproportionate gap in access to infrastructure. Addressing this gap is essential to reconciliation.

The Assembly of First Nations (AFN) has estimated the Indigenous infrastructure gap at $350 billion, including housing needs totaling $135 billion, climate adaptation needs of $31 and improvements to all-season road access of $36 billion. The AFN underscored the need to address severe deficits facing from overcrowded housing, underperforming utilities, inadequate healthcare and education facilities, and persistent drinking water advisories.[7] As well, 53 Inuit communities across the arctic regions of the Inuit Nunangat presently face infrastructure needs to transition from reliance on diesel generators for heat and electricity, address

[7] Assembly of First Nations (2022), *Closing the Infrastructure Gap by 2030*. Available online: https://www.afn.ca/wp-content/uploads/2022/12/22-11-17-SCA-Slides-for-SDWFNA-and-Closing-the-InfrastructureGap.pptx



lack of access to highspeed internet services, and ensure access to air- and port- infrastructure. Metis communities are often located in more rural locations and face similar challenges.

Closing the infrastructure gap for Indigenous communities enhances economic opportunity and social wellbeing and reduces long-term costs to government. When Indigenous communities prosper, all of Canada benefits.

Indigenous communities are also seeking pathways to ownership of the new infrastructure projects that impact their traditional territories. These opportunities for ownership provide important pathways for Indigenous-led economic development. When investing in projects, the CIB looks for opportunities to build Indigenous partnerships.

To this end, Budget 2023 announced that the CIB will provide loans to Indigenous communities to support them in purchasing equity stakes in infrastructure projects in which the CIB is also investing.[8] This added role underscores the importance of the CIB for supporting Indigenous communities' participation in new infrastructure.

[8] Government of Canada (2023), ***Budget 2023 – A Made-in-Canada Plan: Strong Middle Class, Affordable Economy, Healthy Future***. Available online: https://www.budget.canada.ca/2023/report-rapport/toc-tdm-en.html

1.7 Canada's collective infrastructure need is always evolving

What is defined as "infrastructure" will evolve with new technology and changing public needs. However, several features differentiate infrastructure from other assets. These relate to how infrastructure functions to deliver important public benefits.

In developing its infrastructure economic accounts, Statistics Canada uses such a functional definition to identify the assets that represent "infrastructure",9 including critical infrastructure in the communications, transportation, energy and electricity sectors regardless of ownership.

Fundamentally, infrastructure enables social or economic activity that would not otherwise occur or would significantly higher costs. Projects have long lead times and long lives. They define significant elements of our society for generations.

Consider a student's ability to easily ride public transit to visit a museum, access an online class from a rural community, or use telecommunications infrastructure to share a document or meet with colleagues virtually. For an exporter, infrastructure provides access through roads, railways and ports to connect with suppliers and customers. The ability of our electricity system to meet the challenge of reaching net-zero greenhouse gas emissions by 2035 requires new investment in generation, transmission and storage. Our building stock provides critical locations where workers gather to collaborate in-person.

A distinctive feature of infrastructure is that those assets provide time-sensitive connections for people, information, energy or materials that, in turn, are integral to producing other goods and services or enhancing social well-being. Networks for water treatment, distribution, sewage and waste disposal are likewise both necessary for production of many goods and integral to everyday standards of living.

Because infrastructure assets are long-lived and help facilitate other activities, infrastructure projects represent both a bet on the future and a decision about the future. The types of infrastructure that Canada builds today will determine how Canadians move, access information and use energy for decades to come. Therefore, planning any infrastructure project to deliver

[9] John R. Baldwin and Jay Dixon (2008), *Infrastructure Capital: What Is It? Where Is It? How Much of It Is There? Statistics Canada*. Available online: https://www150.statcan.gc.ca/n1/pub/15-206-x/15-206-x2008016-eng.htm

the greatest public benefits requires governments look beyond "what is" to "what can be". Maximizing the value of infrastructure depends crucially on policy coordination across governments and requires patience, discipline and foresight.

What is broadly considered infrastructure is ever evolving, growing to include new categories of assets as society faces new challenges or innovation produces new technologies that serve public needs. The Lachine Canal opened in 1825 bypassing rapids at Montreal allowed shipping traffic to continue upriver. Canals were then supplemented and replaced by railways from the 1850s into the 20th century. We continually developed new ways of sharing information across vast distances: telegraphs, telephones and digital broadband provided new ways of communicating and connecting with each other. The advent of air travel made airports infrastructure and, similarly, the increasing use of radiocommunications sweeps towers and transmission facilities into our definition of infrastructure. Just as yesterday's priorities for infrastructure are different from those today, today's needs will also not be tomorrow's.

More immediately, as Canada faces the challenge of decarbonizing our economy, assets that displace carbon-intensive energy sources or facilitate carbon capture and storage represent infrastructure that serves a public purpose. Looking ahead, as Canada faces a changing climate, investments that enhance the resilience of our built environment to extreme weather events and help Canadians adapt will also serve an important public need.

The nature of Canada's infrastructure challenges today requires thinking about both large, transformational projects and also about modular, local projects in a wider transition. For example, to decarbonize Canada's energy use, shifting different end-uses to electricity and clean fuels requires motivating private owners of many dispersed assets to make the switch in parallel to our shared energy systems. This requires coordination across "many pieces" of similar but dispersed assets.

For example, retrofitting many commercial buildings and industrial facilities – at a pace and scale beyond what is required or incentivized under regulation – is critical to reducing Canada's emissions. Similarly, rapidly expanding networks for recharging or refueling zero-emission vehicles is a perquisite for drivers and fleet operators to adopt that technology. Finally, energy storage projects are integral to ensuring a reliable electricity supply as more renewable generation enters service. These projects reflect that the nature of infrastructure projects – particularly for decarbonizing – will be increasingly modular across our whole economy.

1.8 Infrastructure is defined by the shared public interest – not ownership

The Canada Infrastructure Bank Act (CIB Act) sets as the CIB's purpose to invest in infrastructure projects "in the public interest" alongside "private sector investors and institutional investors".[10]

> *"The decarbonization and modernization of our assets is an integral part of Dream's net zero transition. This investment will have a positive and lasting impact on communities and the environment."*
>
> **Michael Cooper,**
> Dream President and
> Chief Responsible Officer

This reflects Canada's long history of delivering transformational infrastructure projects that deliver widespread public benefits in close partnership between public and private sectors: from the expansion of the railways to bringing electric light to Canadians' homes to the build-out of our telephone network, critical infrastructure in the public interest has been developed and delivered by the private sector. These projects had benefits that accrued widely across our society and, if left to individual decision-making alone, we would have collectively underinvested in the infrastructure that is integral to today's living standards.

Closing our infrastructure deficit will take significant investment in our collective infrastructure to deliver on important public benefits. For the scale of the infrastructure challenge we face, it is clear we will need to mobilize private investment alongside outlays by governments – beyond a narrow definition of "publicly owned" infrastructure.

In Canada, the private sector has been long involved in infrastructure for the public interest. The private sector owns electricity transmission and distribution in Alberta and Nova Scotia, and Ontario's primary transmission and distribution utility, Hydro One, is a publicly listed company. Canada's two Class I railways, Canadian National and Canadian Pacific, are private entities. Canada's ports have significant investment from private and institutional investors in container and bulk terminals. Most of Canada's telecommunications infrastructure – both

[10] *Canada Infrastructure Bank Act*, SC 2017, c 20, s 403 at Section 6.
Available online: https://www.laws-lois.justice.gc.ca/eng/acts/C-6.18/FullText.html

wireline and wireless – is built and operated by private companies. Charging infrastructure for electric vehicles is being developed by various private companies – including fuel retailers, vehicle manufacturers and equipment providers.

This is true internationally as well. For example, Australia, unlike Canada, extensively involves the private sector in development and operation of roads through a variety of revenue models, including tolls for drivers and availability payments and "shadow" tolls from governments. In contrast with Canada, France involves private capital extensively in the operation of public transit networks.

The public interest benefits and need for new partnerships between public and private sectors to deliver infrastructure in the CIB's priority sectors are clear. In the government's current priority sectors for the CIB, these are:

- Accelerating climate action across every sector of the economy;
- Ensuring universal high-speed internet access;
- Building strong trade links with the world;
- Expanding transit systems in our growing cities; and
- Closing our Indigenous infrastructure gap.

Regardless of the ownership model, society needs to invest in critical infrastructure public interest priorities to ensure we invest sufficiently for the future. And, just like our existing infrastructure stock, it will take both public and private investment to meet our needs.

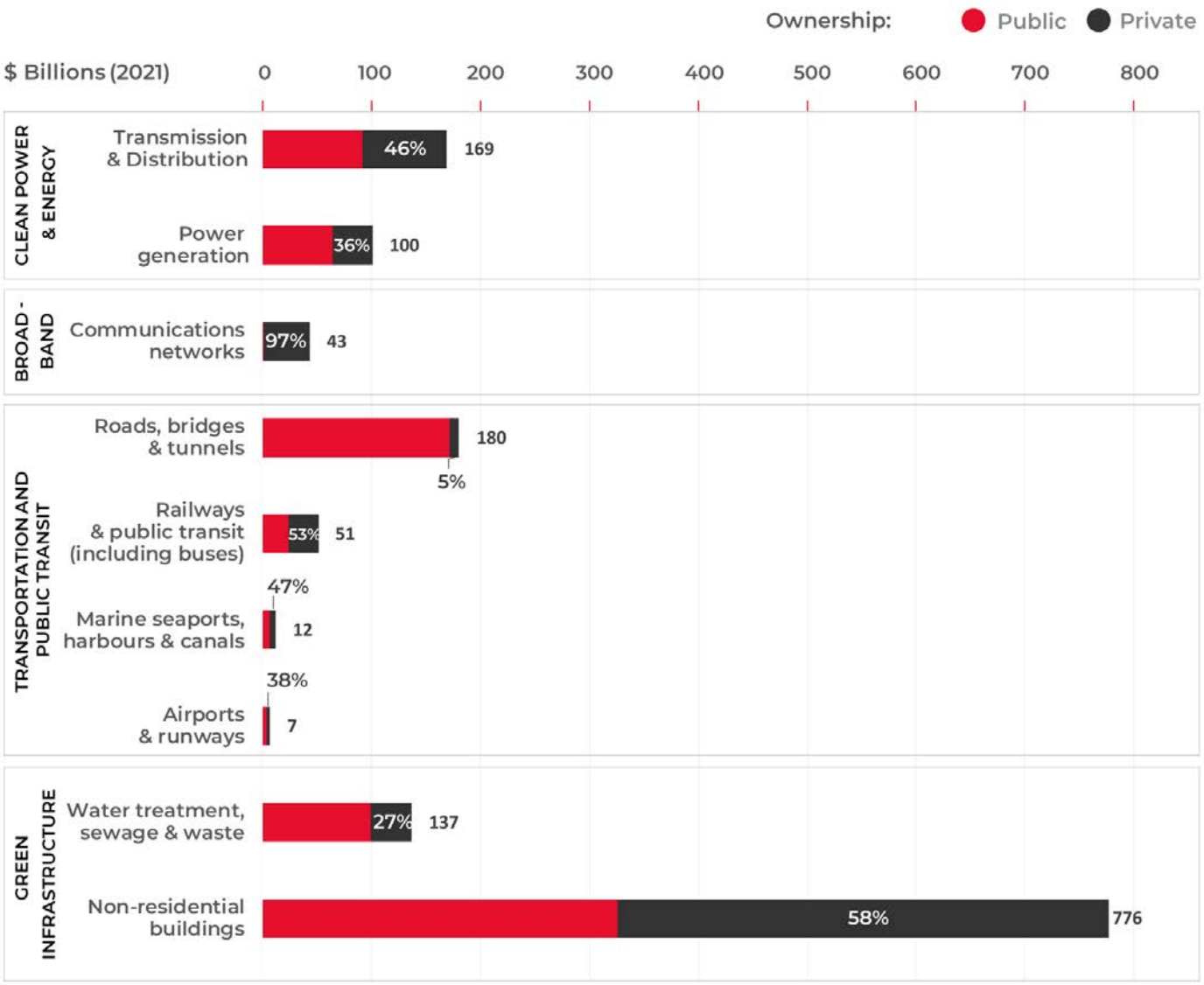
The CIB's focus on revenue-generating infrastructure is driven by the aim of attracting private investment to projects with public benefits. The ability for a project to generate revenue reflects the benefits that asset is expected to yield for users. A robust business case that attracts private investment directly demonstrates the expected benefits from that infrastructure. Financing infrastructure with private capital helps leverage their expertise, scrutiny and diligence about opportunities, trade-offs and expected impacts of different projects.

Involving private capital in delivering infrastructure provides additional cost discipline. With the right shifting of project risks through innovative contracting, private developers will have financial incentives to deliver a project cost-effectively and on schedule. As well, a consistent pipeline of available projects allows developers to make investments in capabilities and systems

for better project delivery, improving productivity for capital projects in the long term.

Today, the CIB's priority sectors already feature extensive private involvement. Statistics Canada data on ownership of infrastructure show the extensive private role in communications, electricity and transportation, as well as non-residential buildings. All of these sectors involve long-lived assets that facilitate economic activity and enhance Canadians' lives. Modernizing this infrastructure while decarbonizing these priority sectors will require catalyzing new private investments.

Total value and private ownership share of Canada-wide infrastructure by function at 2021 year-end



Source: Statistics Canada (Infrastructure Economic Accounts, Non-Residential Fixed Capital Stock)

02.

THE CHALLENGE OF MOBILIZING INVESTMENT TO GET MORE BUILT FASTER

Canada Infrastructure Bank | Banque de l’infrastructure du Canada

- In the immediate term, investments in infrastructure will face significant global headwinds from a volatile and uncertain macroeconomic environment, with many projects facing cost inflation and supply chain bottlenecks alongside the impacts from tightening monetary policy on risk appetite and higher cost of capital.
- Around the world, private and institutional investors are eager to invest in infrastructure, but this private investment will only flow into projects with the right risk/return profile.
- Canada lags our international peers in attracting private capital to infrastructure projects: Much of Canada's challenge in attracting private investment to infrastructure is linked to policy decisions across all levels of government – for example, regulated monopolies for vertically-integrated Crown corporations in most provinces' electricity systems and absence of user-pay models on Canada's highways.
- Private investors perceive significant risk around permitting and regulatory timelines to pursue new greenfield projects absent public support.
- Infrastructure projects face persistent hurdles – for example, these include uncertainties about future demand, the size of upfront capital costs versus growth in users and the willing-to-pay, and the transaction costs associated with a first-of-a-kind project.

2.1 The next decade has new challenges for delivering infrastructure

Significant headwinds now face infrastructure projects in Canada and around the world. In this setting, the CIB will play an increasingly pivotal role in mobilizing private capital for delivering the infrastructure that connects Canadians, decarbonizes Canada's economy and enhances Canadian prosperity.

A volatile global economy – in particular, uncertainties driven by elevated inflation across developed economies – means heightened risk for delivering large capital projects. Project developers face uncertainties around labour shortages and supply chain constraints – for example, higher prices and backlogs for key materials in energy transition projects like lithium for batteries or critical equipment in broadband like fibre optic cable. The risk of significant cost escalation on the inputs needed for a project will, in turn, alter the risk-return profile, and private capital will require an increased risk premium to go forward with an investment.

These global challenges make infrastructure investment essential to grow a dynamic and competitive Canadian economy that can adapt to new conditions in global trade. Canada needs robust transportation networks for advanced manufacturing industries to rely on Canadian links in integrated value chains. Dependable public transit networks are essential for vibrant, livable cities that attract a skilled labour force and host the new ventures that drive innovation of new products and services.

Simultaneously, the global consensus has cemented around the urgency of addressing climate change through the rapid decarbonization of energy supplies, industrial output and transportation. With Canada's rich endowment of natural resources, Canada has a substantial opportunity to provide clean energy and material exports to the world – and, in particular, contribute to secure energy supply for our allies. However, expediting investments in clean power and energy transition infrastructure

will be essential for Canada to maintain its preferred trading partnerships with other advanced economies.

Delivering the infrastructure that Canada needs will involve significant timelines for development. Large, transformative projects do not happen overnight. What to build and how to build it must be decided before deciding how to pay for it. This involves design and engineering to understand project costs and benefits, advancing projects through regulatory and permitting processes, and consulting with stakeholders and Indigenous communities.

For the largest projects, multiple stakeholders and levels of government need to make a common decision to advance a project. At this stage, decisions can be made on how to finance and procure a project. Project sponsors must devote significant resources and expertise to navigating these project development challenges.

Canada's challenges require investments in infrastructure that threaten to strain governments' capacity to finance without mobilizing private capital.

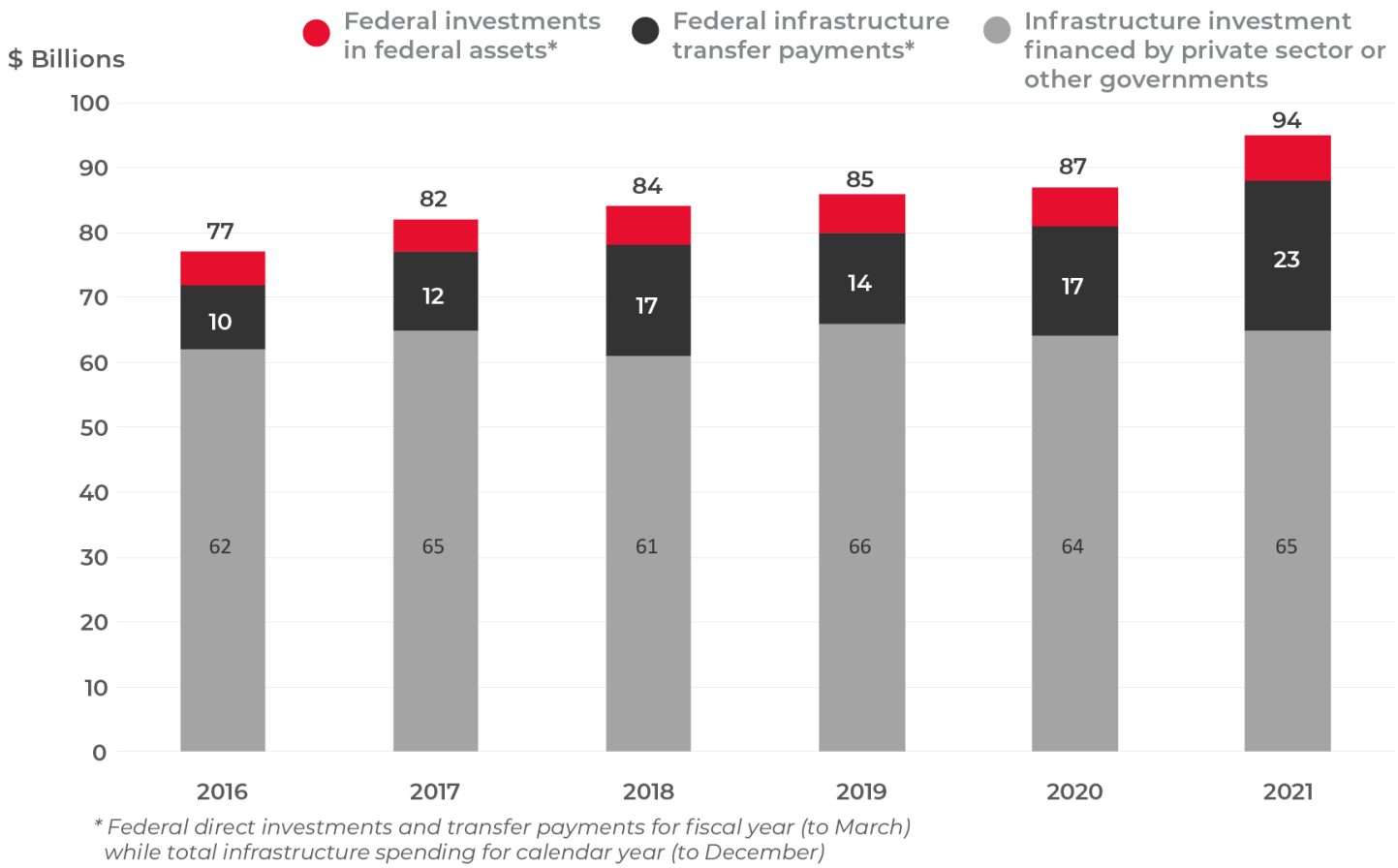
Federal outlays on infrastructure have effectively doubled from $15 billion to $29 billion from fiscal year 2016-17 to 2021-22. This federal spending has substantially boosted overall Canada-wide infrastructure investment. Most of these federal outlays on infrastructure were in the form of transfer payments, and federal transfer payments

have increased significantly as a share of total annual infrastructure investment in Canada, increasing from around 12% to nearly 25% over a five-year interval.

However, governments do not have unlimited borrowing capacity, and, as other public spending priorities compete for scarce funds, governments balance sheets will strain to sustain upkeep on existing assets while also financing new infrastructure to address urgent challenges.

The Honourable Dominic LeBlanc, Minister of Intergovernmental Affairs, Infrastructure and Communities, has been mandated to ensure the CIB has the support it needs for its core purpose of attracting private sector and institutional investment to expand the scope of public infrastructure investment in Canada. The CIB welcomes these efforts and believes that it is achieving its purpose and that its performance is in accordance with its governing legislation.

Canada's total annual infrastrcture spending with federal direct investments and transfer payments



** Federal direct investments and transfer payments for fiscal year (to March) while total infrastructure spending for calendar year (to December)*

Sources: Parliamentary Budget Office (Federal Infrastructure Spending, 2016-17 to 2026-27), and Statistics Canada (Infrastructure Economic Accounts)

2.2 Indigenous communities face unique challenges in delivering needed infrastructure

> *"For many years, my community's growth and development was frustrated due to a lack of land. The recent expansion of our reserve land base provides a long overdue opportunity to proceed with urgently needed community housing and other community and economic development projects. The investment from the CIB was essential to completing the financing for this project, that includes community equity and funding from various other community partners. Our experience with the CIB was an extremely positive one and they are clearly committed to the growth and development of Indigenous communities."*
>
> **Louis Kwissiwa,**
> Chief, Netmizaaggamig Nishnaabeg

Investments in infrastructure for Indigenous communities has historically faced significant barriers. These barriers include reliance on federal grant funding, lack of experience by private capital for financing Indigenous infrastructure projects, and a correspondingly limited revenue base to service any financing. Many Indigenous communities, as a result, lack expertise and have limited experience developing, managing, procuring and investing in community-based infrastructure.

The remote nature of many Indigenous communities also means elevated costs for accessing many goods and services – including fuel and building supplies. Transportation and telecommunications infrastructure is required to connect these communities to the wider world.

The federal government has maintained oversight and control of all reserve-based development under its granting programs. Grant programs are limited and have not to date fully closed the Indigenous infrastructure gap.

Indigenous communities may lack a demonstrated credit history of servicing loans. For communities without this credit history, they may not have broad understanding within the community of the appropriate use of this tool. Similarly, commercial lenders frequently

deem Indigenous communities as high risk and price loans accordingly, often as a result of the unique land regimes, limited revenue base and limited taxation on reserve lands. While Indigenous communities are developing their own land codes and taking on taxation authority to generate revenues, commercial lenders have not adapted their policies as quickly.

2.3 Infrastructure attracts large amount of private capital globally

Compared to its peers, Canada attracts less private investment to its infrastructure sector. The past decade has witnessed a surge in private capital available for financing infrastructure, but Canada's share of this investment has declined.

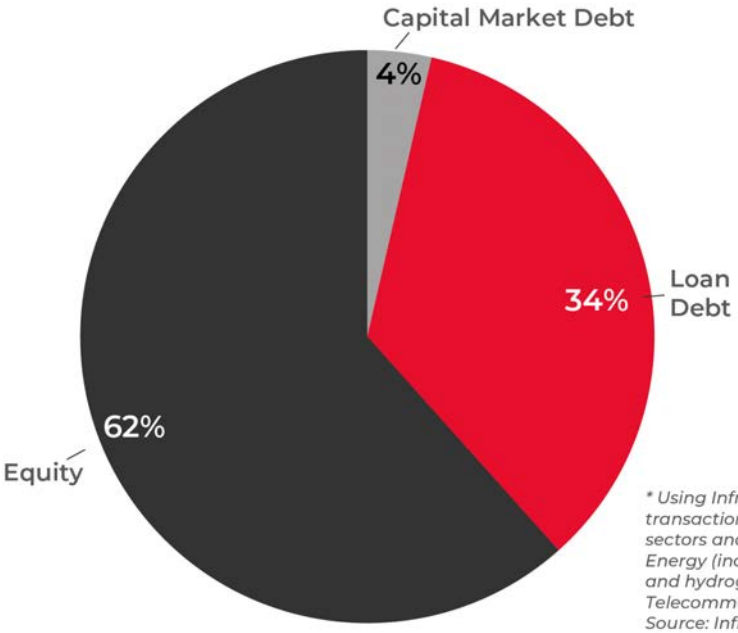
The amount of capital raised by private funds worldwide specifically for infrastructure investments has increased approximately six-fold over the last decade.[11] The sources for the large majority of capital for infrastructure is headquartered in North America and Europe.

Commercial and investment banks provide the majority financing for private investment in infrastructure projects. However, critical shares of investment – particularly in the higher-risk equity and subordinated debt for projects – comes from developers (including engineering, procurement and construction entities), sector-focused companies (for example, privately held electricity utilities, railway operators

[11] Global Infrastructure Hub (2022), *Infrastructure Monitor 2022*. Available online: https://www.gihub.org/infrastructure-monitor

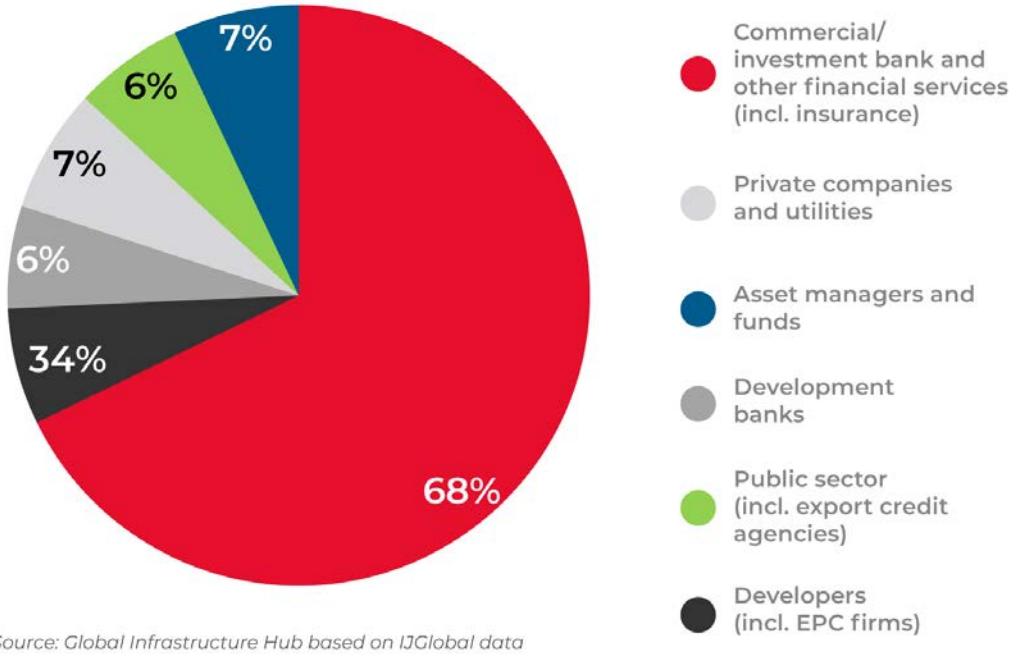
and telecommunications carriers), asset managers (including private equity), specific infrastructure funds and other institutional investors (including pension funds and sovereign wealth funds). Globally, development banks (both multilateral and domestic-focused like the CIB) play a key role in catalyzing private investment – particularly for those projects in the public interest that face significant economic or risk barriers.

Composition of financing for "greenfield" infrastructure transactions in CIB's priority sectors* from 2013-2022



** Using InfraLogic categories, scope for transactions aligned with the CIB's priority sectors and includes Power, Renewables, Energy (including biofuels, district heating and hydrogen), Environment, Telecommunications and Transport. Source: InfraLogic data*

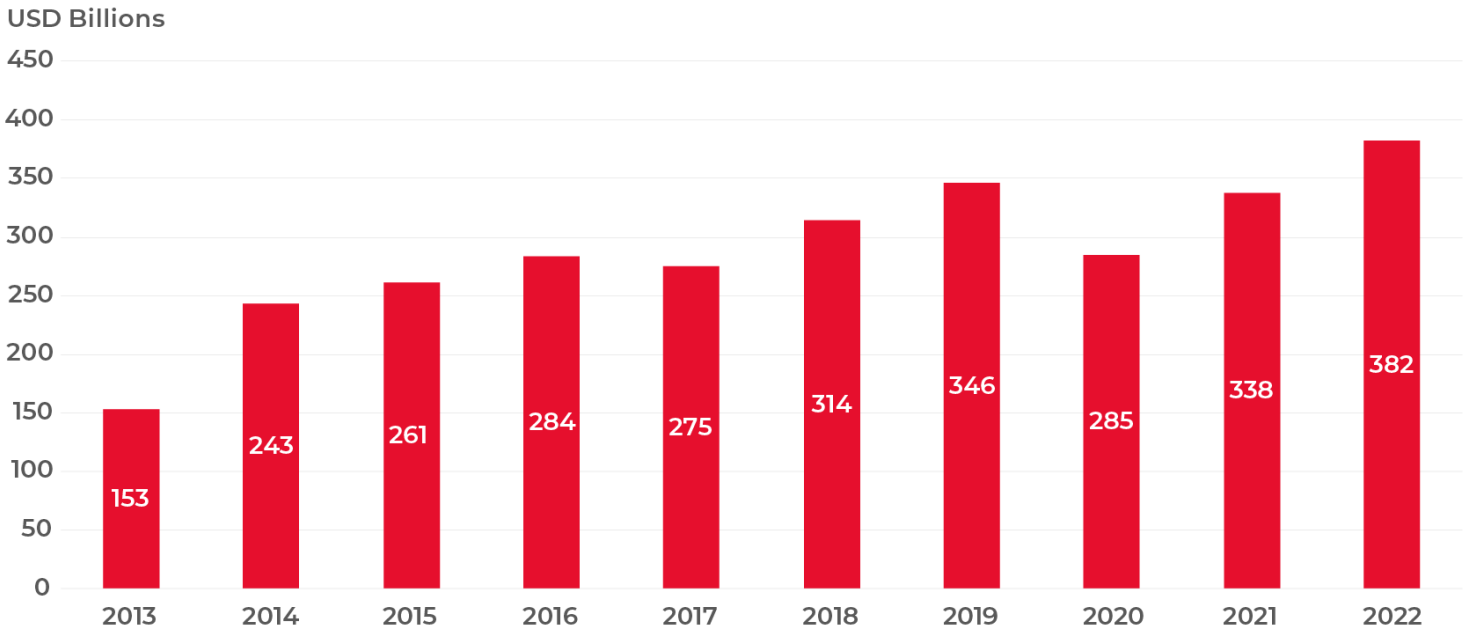
Composition of financing of private investment in infrastructure projects by source of financing in 2021



Source: Global Infrastructure Hub based on IJGlobal data

This push towards infrastructure as attractive asset class has driven a surge of privately financed "greenfield" projects globally – witnessing a more than doubling of the combined equity and debt value of these transactions since 2013. Investments in revenue-generating infrastructure with long-term horizons provide a hedge against inflation since cashflows often have a formal indexing to inflation or provide pass-through of inflation-driven costs.

Global privately financed "greenfield" infrastructure investment in CIB priority sectors*



** Using InfraLogic categories, scope for transactions aligned with the CIB's priority sectors and includes Power, Renewables, Energy (including biofuels, district heating and hydrogen), Environment, Telecommunications and Transport*

Source: InfraLogic

These greenfield investments have been in the CIB's priority sectors. However, relative to 2021 GDP, privately financed investment for new projects within the CIB's priority sectors in Canada has been significantly below that seen in the United Kingdom and Australia.[12]

Other peer countries have enabled significant private investment in existing assets in the electricity, trade and transport and transit sectors. Similarly, Canada in the past has moved significant assets in the energy and transportation sectors into private ownership – for example, Petro-Canada (now Suncor), Air Canada and Canadian National Railway.

[12] Analysis by the CIB of data from InfraLogic. Data available at: https://infralogic.com/

2.4 Infrastructure faces barriers to attracting private finance

> *"It's really been the leadership role that the CIB has taken as a catalyst in, I think, clearing many of the financial and operational obstacles that existed for local transit agencies to decide that they wanted to take the leap from conventional diesel or natural gas."*
>
> **Marco D'Angelo,**
> President and CEO of the Canadian Urban Transit Association

In many cases infrastructure projects cannot get built based on the revenues of the project alone, and as such turn to private financing to play a role.

Four types of barriers often face infrastructure projects in the public interest and inhibit private financing. These are:

- **"Commercial risk"** where an economic, market or regulatory risk is beyond the capability of a proponent to manage, deterring or delaying an investment or resulting in a diminished size for the project;
- **"Economic barriers"** where anticipated future cashflows from the project would not provide a sufficient return for private capital to justify the investment on commercial terms but the infrastructure can nonetheless deliver important public benefits;
- **"Structural lending barriers"** where a solid business case exists for a return on the investment but commercial lenders currently lack experience with the context or project type and face significant costs for extending financing in early transactions before the market matures; and
- **"Risk transfer"** where a project has an opportunity to leverage private partners for cost-effective delivery and free-up public borrowing capacity but at higher initial cost

These barriers may inhibit infrastructure projects with public benefits. The CIB's financing is specifically tailored to addressing these gaps and getting projects built.

03.

HOW THE CIB GETS INFRASTRUCTURE BUILT

- The CIB's investment and advisory activities mobilize private and institutional capital to build more infrastructure faster.
- By addressing barriers to building revenue-generating infrastructure with innovative, targeted financial structures, the CIB efficiently allocates risks around project delivery and catalyzes private investment in transformative projects that would have otherwise languished or been shelved.
- By catalyzing private investment in revenue-generating projects, the CIB frees up public funds for other priorities and helps relieve balance sheet pressures for all orders of government.
- The CIB's investment framework features clear and transparent "guardrails" to ensure that new investments accelerate priority public impacts while minimizing fiscal impacts and targeting the CIB's capital to realize the greatest benefits for Canadians.
- As shown by its leadership on High Frequency Rail for the Toronto-Quebec City corridor, energy storage in Ontario and the Atlantic Loop electricity interconnection project, the CIB is uniquely positioned to provide strategic, independent advice across governments, support project proponents and help align stakeholders in the active development of transformative infrastructure projects.

3.1 The CIB mobilizes private and institutional capital to build more infrastructure faster

The CIB plays a unique role in addressing the barriers that face investments in new infrastructure with public benefits. Under its Investment Framework, the CIB seeks out a maximum return for Canadians' dollars in terms of the public impact relative to the fiscal impact of the CIB's financing.

The CIB invests in projects that would have not been developed, would have been significantly delayed or would have been delivered at a smaller scale without the CIB's financing. The CIB's investment professionals make expert judgments about the availability of commercial financing for every project in which the CIB invests, and the CIB's management and board thoroughly scrutinize each potential investment for whether it deploys the CIB's capital most efficiently to deliver public benefits. Only if an infrastructure project with public benefits cannot obtain sufficient private investment to deliver rapidly and at scale – that is, the project faces an identifiable barrier to private financing – will the CIB invest.

In contrast with an unrecoverable government grant, the CIB recovers its capital through repayment of its investment in a project. By using repayable loans instead of grants, the only cost to the taxpayer is the potential that the CIB is not able to recover its capital across the portfolio (i.e., credit losses exceed interest revenues). This frees up federal grant funding to be strategically targeted to projects that lack a private-sector business case.

The CIB's mandate is focused exclusively on investment in new infrastructure projects within our priority sectors that deliver public benefits. The CIB seeks to deliver these as effectively as possible by leveraging private capital investment.

"The CIB was established to ensure that Canadians benefit from modern and sustainable infrastructure through partnerships between governments and the private sector. It does this through its core responsibilities in investment, advisory services and research that leverage the capital and expertise of the private sector to achieve public outcomes and value for taxpayers. The CIB helps public dollars go further by investing in revenue-generating infrastructure projects in the public interest and developing innovative financing tools. The goal is more infrastructure built across the country. It is critical that the CIB collaborates with federal, provincial, territorial, municipal, Indigenous and private investor partners to transform the way infrastructure is planned, financed and delivered."

Statement of Priorities and Accountabilities – Canada Infrastructure Bank [13]

The Honourable Catherine McKenna, P.C., M.P., Minister of Infrastructure and Communities (2019-2021)

[13] Infrastructure Canada (3 February 2021), Statement of Priorities and Accountabilities letter. Available online: https://www.infrastructure.gc.ca/CIB-BIC/letter2-lettre2-eng.html

"Private" and "Institutional" Investors – What's the difference?

Through this report, we often use "private capital" and "institutional capital" interchangeably. The CIB Act specifically contemplates investing alongside private and institutional investors:

> *The purpose of the Bank is to invest, and seek to attract investment from private sector investors and institutional investors, in infrastructure projects in Canada or partly in Canada that will generate revenue and that will be in the public interest by, for example, supporting conditions that foster economic growth or by contributing to the sustainability of infrastructure in Canada.* [14]

Private Investors – Private investment comes from organizations that are not controlled by governments in Canada and do not have recourse to public sources of funding. They share in the risks and rewards of the project to create incentives for improved performance. For example, the CIB's investment in Manitoba Fibre includes private capital: DIF Capital is a private investor that has raised its money in the private market. Another example comes from Alberta Irrigation Districts: While the Alberta Government has established the governing framework for these districts in legislation, the boards of the districts are elected by the customers of the irrigation district. The districts are controlled by their private sector members and operate with the pooled resources of their private sector members.

Institutional Investors – The CIB Act also mandated the CIB to seek to attract investment from institutional investors, such as Canada's large pension funds, many of whom have sizeable infrastructure portfolios. Canada's pension plans are considered by the market as institutional investors and make decisions at arms-length on a commercial, investment-only basis, similar to a private investor. When they choose to invest in Canada, they are doing so in comparison to other investment opportunities around the world. A choice to invest in Canada with repayment from the revenues of the project, instead of elsewhere, increases the amount of infrastructure that can be delivered in Canada. The CIB has already made notable investments alongside institutional investors, including CDPQ Infra in the Réseau express métropolitain (REM), the Ontario Teachers' Pension Plan in Enwave District Energy, and the British Columbia Investment Management Corporation in Lulu Island Energy Company's district energy project.

By virtue of their identical, commercially focused mandates, both private and institutional investors deliver the same benefits to Canadians when they invest alongside the CIB. The CIB does not draw a distinction between these sources of capital in any of its investment activities.

[14] *Canada Infrastructure Bank Act*, SC 2017, c 20, s 403 at Section 6.
Available online: https://www.laws-lois.justice.gc.ca/eng/acts/C-6.18/FullText.html

3.2 The CIB addresses barriers to private financing for new projects

The CIB combines its commercial discipline, innovative financial structures, and expert advisory function to get more infrastructure projects in the public interest built faster by addressing the economic, commercial, structural and risk transfer barriers that stall projects.

For commercial risk barriers, risks around ramp-up in volumes, future pricing, policy or project delivery may deter or delay an investment. However, the CIB's patient, long-term capital and risk appetite can provide a financial product that enables the project to proceed. The CIB can tailor its financing instrument to share in the risk that is preventing the project from proceeding and unlock the project.

For example, to mitigate the **commercial risks** of a project, the CIB may provide repayment terms based on:

- **Volume ramp-up risk**: For example, how quickly new building development connects to a district energy system, or how quickly container volume increases at a port (i.e., tailoring repayment to the ramp-up in the project's revenues);
- **Merchant pricing**: Where the value of the project's output is uncertain – for example, in the market for energy storage on electricity grids or in the 'green premium' achieved by low carbon fuels;
- **Network effects**: For example, EV charging faces a "chicken and egg" problem of coordinating both large charging networks to incent purchasing of electric vehicles and widespread adoption of EVs to incent investment in charging infrastructure; or
- **First-of-a-kind deployments**: Even if proven at demonstration or pilot scale, many new technologies that are integral to the energy transition (e.g., small modular reactors, autothermal reformation for hydrogen, carbon capture and storage, and energy storage) will need to be delivered at a significantly larger scale. At that scale, these will represent first-of-a-kind projects and face technical hurdles for construction and optimizing production. The Darlington Small Modular Reactor Project is an example of such first-of-a-kind deployments with CIB financing.

The CIB's financing structures align incentives and appropriately allocate commercial risk to attract private investment and move the project ahead. For example, the CIB finances district energy projects to help upscale the investment to meet potential future demand. Such greening of energy systems requires construction on a massive scale under city streets. The CIB can lend against future, not-yet-constructed buildings that would connect to the district energy systems – revenues against which private lenders are presently unwilling to lend. The CIB's recent investments in Lulu Island District Energy and Markham District Energy speak to the CIB's ability to bear risks (e.g., around ramp-up and adoption) that previously inhibited such projects securing more traditional financing. For these projects, the CIB tailored its financing to allow the proponent to upsize the initial size, with the CIB assuming certain risks around future volumes and extending repayment periods contingent on the ramp-up of demand.

Similarly, for an investment in the expansion of port capacity, the CIB might tailor repayment to the additional volumes, offsetting certain commercial risks that are outside of the operator's control.

For **economic barriers**, where anticipated future cashflows from the project would not provide a sufficient return for private capital to justify the investment on commercial terms, CIB financing can make a project able to proceed, at lower fiscal cost than direct federal grants. It does this by making an investment with lower return expectations than what is available in the market, lowering the project's cost of capital. This enables investors to take a longer time horizon in considering whether the revenues of the project can repay the upfront investment.

This attracts private capital to projects with significant public benefits but inadequate forecast cashflows to achieve the required positive net present value at a commercial cost of capital. For example, in broadband, the revenues from rural customers is insufficient to repay the required capital costs to connect those customers, at a commercial return. However, broadband expansion delivers public benefits from wider economic opportunity and social participation.

An example of addressing an economic gap is the CIB's financing for Valley Fiber and

> *"Our partnership with Canada Infrastructure Bank has been critical to transitioning our fleet to zero-emission vehicles much quicker than we could have done on our own."*
>
> **Jyoti Gondek,**
> Mayor, The City of Calgary

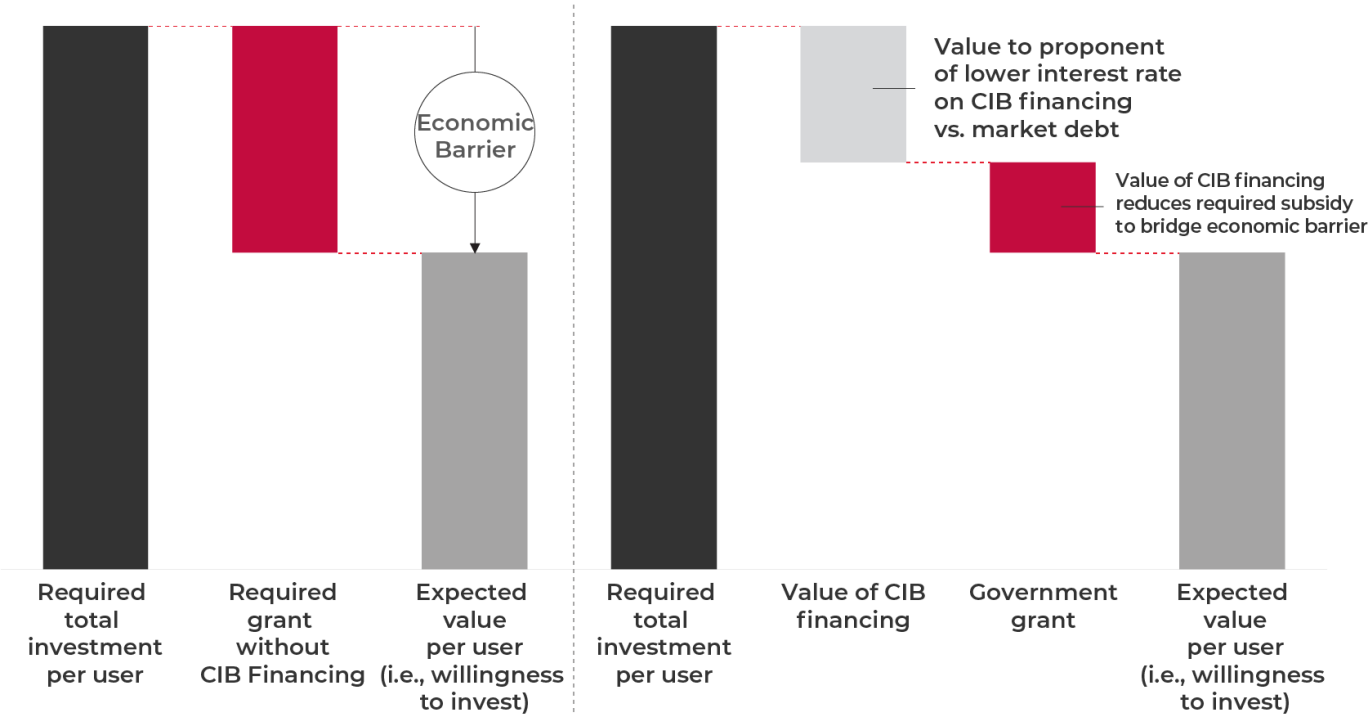
DIF Capital Partners' project in Southern Manitoba, connecting 48,400 underserved households to reliable broadband. Leveraging the CIB's repayable loans eliminated the draw on federal funds for the project, allowing for strategic targeting grants to the most difficult-to-reach communities. It does this because the project proponent was able to borrow more cost-effectively from the CIB than they could from a private financial institution, reducing the costs of the project. However, the CIB loan will be repaid and therefore avoids the taxpayer expense of a direct federal grant to close the gap. le broadband. Leveraging the CIB's repayable loans eliminated the draw on federal funds for the project, allowing for strategic targeting grants to the most difficult-to-reach communities. It does this because the project proponent was able to borrow more cost-effectively from the CIB than they could from a private financial institution, reducing the costs of the project. However, the CIB loan will be repaid and therefore avoids the taxpayer expense of a direct federal grant to close the gap.

How the CIB's financing can mobilize private investment in the face of an economic gap

Consider the economics of a broadband expansion project to rural communities. For such a broadband build-out, the proponent will face an economic barrier between the required investment and the expected value per user.
The proponent will lack incentive to make the investment given costs that exceed the expected value of the user.

Without the CIB, government would need to provide a grant subsidizing the entirety of the economic barrier. However, the CIB can provide a loan at a lower interest rate for the project compared to the proponent's borrowing rate for its own debt.

By reducing the cost of capital, the CIB's financing reduces the cost of the project. In turn, the CIB's financing reduces the government grant that is required to address the economic barrier and provide a business case for the proponent to undertake the project. The private capital that is invested alongside the CIB is in a project that wouldn't otherwise happen.



To address **structural lending barriers**, the CIB engages with proponents where a solid business case exists for the project but private capital providers currently lack experience with the project type, perceive high transaction costs, and may lack available capital to invest.

Although the private investors could engage consultants or lawyers to better understand the project context, they may also perceive that diligence as too costly for the uncertain payback. Therefore, lacking prior precedents and facing uncertainty about follow-up projects, high transaction costs may deter private investors – lenders in particular. This means the project would only proceed with more costly equity or not proceed at all.

This challenge is especially acute for Indigenous communities seeking to access financing to construct on-reserve infrastructure, but also arises in other investments like energy retrofits, so our program in that area is designed to demonstrate feasibility of cost savings as a repayment source.

The CIB's willingness to invest demonstrates the feasibility for future, similar transactions on commercial terms. The CIB helps borrowers deliver projects with sound business cases but for which private investors lack past experience diligencing and structuring investments.

Importantly, the CIB's bridging of such structural lending barriers seeks to provide a platform for commercial financing to take over. The aim is to prove that financing works for such projects, demonstrating the opportunity for private investors to finance future projects on commercial

terms. The CIB's financing for aggregated retrofits of commercial buildings and projects with Indigenous communities provide examples where the CIB's investments establish the processes for due diligence and executing transactions on which other lenders can model future investments.

The CIB's financing helps bridge such structural lending barriers by establishing frameworks to assess novel projects and execute the transactions – proving that a viable investment approach exists. This capacity-building by the CIB also helps establish non-traditional proponents and project types, signaling the viability of such projects to the wider market and reducing transactions costs for future projects.

To motivate **risk transfer**, the CIB helps projects benefit from cost-effective delivery and innovation that private capital can bring to bear. The CIB's financing can increase the value proposition for a public sponsor, helping governments partner with private investors to deliver infrastructure projects. Attracting private investors to partner on infrastructure creates the opportunity to leverage potential for innovation and improves risk allocation leading to better overall value-for-money. As well, attracting private capital to finance a given project with user-paid cashflows can relieve borrowing room for provinces, municipalities and their agencies to fund other critical projects. However, private capital on its own comes with increased financing costs. In such a circumstance, CIB financing can provide the lynchpin for other public entities to transfer project delivery risks to the private partner.

An example of successful risk transfer is the small modular reactor first-of-a-kind deployment for the Darlington Small Modular Reactor project. For this project, CIB financing accelerated the project and created a pathway to cost-effectively crowd in private investment in a project that would likely have been completed with only public financing.

3.3 The CIB's toolkit for innovative financing

As a risk-bearing institution, the CIB deploys innovative financial tools to motivate investments that traditional private investors would not otherwise undertake. The CIB's experts work with the proponent to develop bespoke, innovative financial tools to catalyze an infrastructure project and crowd-in private sector investment. The CIB has the ability to make these investments as a result of its ability to expense $15 billion against the fiscal framework, making investments that others won't.

> *"The reality is that CIB coming in makes a lot of the uncertainty and a lot of the risk much more manageable for the private sector."*
>
> **Lisa Raitt,**
> Vice-Chair of Global Investment Banking, CIBC

For certain investments where the project risks are well-understood, the CIB's financing purely aims to reduce the project's cost of capital. For example, in financing rural broadband, the CIB lends at a below-market interest rate so that connecting more remote households is economic for the proponent. Those connections would not occur without some additional financial assistance.

While all but one of the CIB's investments to-date have been based on debt instruments, the CIB is increasingly structuring its financing options as equity participation for projects in development. The CIB's use of equity will depend on the specific financial gap being addressed and the circumstances of the opportunity .

Many of the CIB's loans have significant equity-like characteristics. In many cases, the CIB uses debt instruments for their ability to precisely tailor the economics of the instrument to the barriers the project faces in the credit agreement. In this way, the CIB can deliver the same outcomes while avoiding the governance complications of equity instruments.

On projects facing a commercial risk barrier, the CIB is able to customize a debt instrument with terms that re-allocate and share in the risks facing the project (e.g., uncertainty around volumes or cost savings).

The CIB significantly customizes each product that it provides. The CIB has financed projects using concepts and components of most of the tools contemplated by the CIB Act. In each

case, the CIB brings its structuring expertise to bear to design the most appropriate tool to meet the project's unique financial circumstances.

As a result, the CIB has made several loans or other financial projects that have equity-like characteristics, using the full range of authorities in the CIB Act. These include the following:

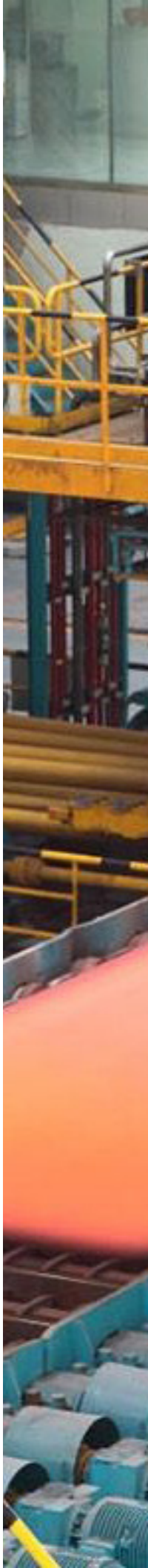
Enerkem Varennes Carbon Recycling – This project involves the production of biomethanol from "green" hydrogen (i.e., produced with zero-emission electricity through electrolysis of water) at a site in Quebec. The project will earn revenues from the sale of biomethanol and is anticipated to be able to sell biomethanol for higher price per tonne than carbon-emitting grey methanol to buyers in Canada and internationally. However, this "green" premium is anticipated to be highly volatile and will depend on future regulations in Canada and globally. The CIB structured a loan product with equity characteristics so that, in scenarios where green premiums are larger than anticipated, the loan's repayment period accelerates and the interest rate increases for the CIB to share in the upside with the project's shareholder.

Zero-Emission Buses – Zero-emissions buses are more costly than diesel buses to purchase but have operating cost savings that can offset the incremental cost over the life of the product. The CIB's loan product for municipalities and school bus operators is designed to accelerate their widespread adoption by sharing in the risk that savings materialize. This allows bus owners to more rapidly adopt zero-emission buses instead of first pursuing multi-year pilots to demonstrate the savings. The CIB's loan product has an equity-like exposure to the savings potential. In the event that the planned savings don't materialize as planned, the CIB may not be fully repaid.

Bekevar Wind Power – The CIB structured a royalty product on this investment which has the seniority of senior debt, but earns repayment based on the actual power production from the wind facility. This decreased the cost of the project to the ratepayer to a level where it was competitive with other more carbon-intensive alternatives. The CIB has offered a similar product to proponents bidding into a wind procurement in Nova Scotia.

Zero-Emission Vehicle Charging – ZEV Charging faces a "chicken and egg" problem where charging infrastructure providers have difficulty financing build-out prior to widespread EV adoption while users are reluctant to purchase an EV while charging infrastructure availability remains an issue. The CIB's ZEV Charging and Hydrogen Refueling Initiative provides a loan with equity-like features: The CIB's interest rate increases alongside utilization, eventually reaching a point where the CIB earns above market interest rates and the proponent will seek to refinance. At the same time, the CIB shares in the risk of an extended period of low utilization in scenarios where ZEV adoption lags expectations.

Algoma Steel Retrofit – As Algoma Steel's existing No. 7 blast furnace, fired predominately by coal and natural gas, is nearing the completion of its current campaign life, the Company seized the opportunity to invest in transforming to electric arc steelmaking to position itself as a low-carbon emission steel company, reducing annual GHG emissions by approximately 3 million tonnes. Their lower-cost alternative was to substantially overhaul and reline its blast furnace and coke batteries, which would still be fossil-fueled. As steel prices are highly volatile, Algoma could self-finance the conversion while steel prices remained high, but could not if steel prices declined over an extended period. The CIB provided a credit facility of up to $220 million for Algoma to proceed with the project, but this financing was structured such that the available credit is reduced as/when Algoma returned capital to shareholders. The persistence of high steel prices through 2021-22 meant that Algoma has been able to self-finance most of the capital outlay required and, as of the end of the 2022-23 fiscal year, only $25.1 million remains available on the CIB's credit facility. The CIB's tailored credit backstop was nonetheless essential to enabling the project to proceed.



» Algoma press

3.4 The CIB brings in new sources of investment alongside the CIB's financing

The CIB's targeted financing to infrastructure projects both catalyzes projects that would not otherwise gone ahead and efficiently transfers risks around the project delivery and cashflows.

The CIB is focused on bringing private and institutional capital to projects with public impact and accelerating investments that the private sector would not undertake without the CIB's partnership. As of March 31, 2023, the CIB has leveraged $8.6 billion from private and institutional investors. This means that more infrastructure is built than without the CIB. The revenue-generating character of every CIB investment also means that the CIB's loans are structured to be repaid and the private capital involved in these projects grows as the CIB's loans mature. The involvement of private capital allows for the transfer of risks around the project to those private partners and utilizes private-sector discipline for delivering and operating the project cost-effectively.

In each investment, the CIB's partners play a more substantial role than only contributing capital. These partners develop technical designs, deliver the project through construction and commissioning, and manage cost and timeline risks in project delivery. Even if a private partner's upfront investment is smaller than that by the CIB, the private partner will nonetheless bear significant risks – often disproportionate to the share of the capital contributed. A loan from the CIB is often secured on the ultimate infrastructure asset and will be repaid from

the project's revenues. However, the CIB's financing will require a private partner to assume risks around the costs of constructing and operating the infrastructure. This aligns incentives for delivering on-time and on-budget and motivates the partner to run the asset most efficiently.

The CIB's success at crowding in new private investment is exhibited both at outset of and over the life of the project. The CIB has attracted partners to projects with an approximately equal contribution relative to the CIB's investment. In the long run, repayment of the CIB's loans from the project's revenues means that the CIB's capital is returned for redeployment in future projects. Meanwhile, that repayment corresponds to the overall growth of private participation in those new infrastructure assets that the CIB has financed. Over the life of the investment, the only remaining cost of the CIB's investment is equivalent to the concessionary value of the investment plus any loss on the investment net of our returns.

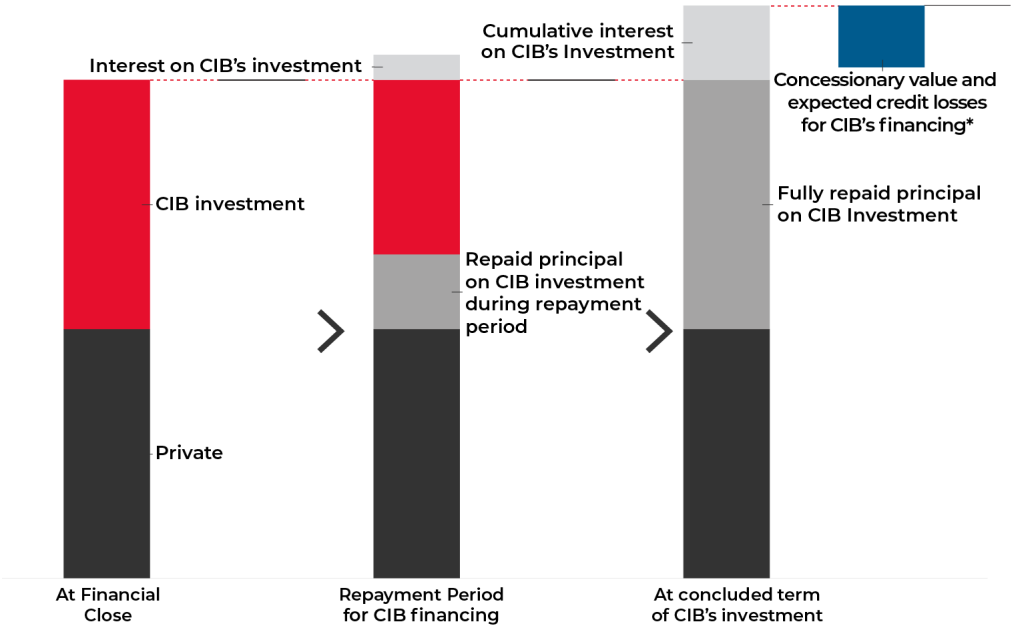
Short-term	Long-term
$8.6 billion Private & institutional capital committed	**8.6 billion** Private & institutional capital committed
$9.7 billion CIB capital committed	**$1.7 billion** CIB long-run concessionary Value

The CIB anticipates these costs being 20-30% of amounts invested.

The CIB's financing is distinct from other funding from government in that cashflows from the financed projects

repay the CIB's upfront investment. Unlike grants from governments that are outlays funded by taxpayers, the cost of the CIB's investments is limited to the expected credit losses for the project (reflecting its relative risk profile) and the temporary impact of provisioning.

The below illustration exhibits how the CIB's upfront investment is repaid from the project's cashflows over the term of the financing, showing the concessionary value of the CIB's financing. The result of the CIB's financing is a tangible asset, paid for with crowded-in private capital and generating revenues to repay loans, which – most importantly – delivers wider public impact for Canadians.



** Expected credit losses across the CIB's portfolio reflect mandate for assuming project risks to mobilize investment*

The types of private and institutional investors investing alongside CIB reflect the project types and sectors on which the CIB has been directed to focus. For example, for broadband, publicly listed companies own the bulk of telecommunications facilities and are the drivers of new investment.

Consequently, reflecting the greenfield character of the CIB's projects, most private and institutional investment has come from portfolio companies or growth platforms established by larger investors. For example, in district energy, projects by the CIB are delivered by Enwave (jointly owned by the Ontario Teachers' Pension Plan and IFM Investors) and Corix Utilities (owned by the British Columbia Investment Management Corporation). This reflects the strategic approach of most large institutional investors which may make "brownfield" infrastructure investments directly but establish or acquire growth-focused subsidiaries to invest in greenfield projects. This is because greenfield projects involve comparatively greater risk with less certainty around expected cashflows.

CASE STUDY: Underground thermal networks key to net-zero emissions goal

Buildings are the third-largest source of greenhouse gas (GHG) emissions and energy consumption, accounting for about 18 per cent of Canada's carbon output, including from the generation of electricity. The CIB is enabling a key path for Canadian cities to achieve their net-zero ambitions through investments in district energy networks.

In these networks, instead of each building having its own plants to produce hot and cold water as well as air conditioning, structures are tied to an underground distribution system known as a thermal grid. The system uses less carbon-intensive fuel sources such as solar, sewer heat, biomass, cold lake water and ground heat, allowing for efficient thermal energy-sharing.

The CIB has invested approximately $1 billion in investments in district energy projects including Enwave in Toronto and Lulu Island in Richmond, B.C. The newest investment, with Markham District Energy, will help the municipally owned network reduce their carbon output by as much as 35,000 tonnes.

CIB's participation allows the Markham District Energy project to be upscaled from a smaller size if traditionally financed. This long-term infrastructure will facilitate regional development for the net-zero future. Such district energy projects are the kind of infrastructure that get done piece by piece without a nudge from the CIB.

3.5 The CIB alleviates governments' financial constraints by leveraging new sources of revenue and attracting private capital

Infrastructure projects can cost billions of dollars and are ultimately paid for by their users: either directly through charges to their users, or indirectly through the tax system. Infrastructure can be financed through the government, by the private sector or through public-private partnerships, regardless of whether they are funded through user charges or through taxes.

> *"Oneida is proof the bank's approach to funding infrastructure actually works ... As this money goes out the door, taxpayers can take comfort from knowing the country's largest renewable power and construction companies are buying what the CIB is selling."*
>
> **Andrew Willis,**
> The Globe & Mail [15]

Governments do not have the financial resources to pay for all of our infrastructure needs. The private sector in turn, who faced complex regulatory frameworks, long approval times and uncertain path to profits, feel it is too risky to build infrastructure even if they saw the opportunity. The status quo has left Canadians with a gap to the infrastructure we collectively desire.

Revenue-generating infrastructure provides sources of revenue to fund infrastructure and opportunities to attract private capital and thereby alleviate governments' financing constraints. Not all of our needed infrastructure can, or should, be funded this way: parks, nature or our school system do not generate revenues to repay their construction cost. Grants through the tax system are necessary.

But some assets – particularly in the CIB's priority sectors – do generate revenues.

[15] Andrew Willis (14 February 2023), "Canada Infrastructure Bank finds its groove with battery storage project," The Globe & Mail. Available online: https://www.theglobeandmail.com/business/commentary/article-canada-infrastructure-bank-finds-its-groove-with-battery-storage

When these revenues can be used to attract private and institutional capital to fund investment, it frees up government dollars for other priorities. An additional advantage of raising revenue from new infrastructure is to align the costs of building and maintaining the project with the benefits that users enjoy. Attracting private capital to a project validates its business case and, in turn, ensures that a revenue-generating investment will provide a net positive benefit for the overall economy.

In addition, provincial, territorial and municipal governments do not have unlimited capacity to borrow to finance infrastructure. By leveraging private investment in revenue-generating infrastructure, these governments can focus their borrowing capacity on other capital spending that will be funded by taxpayers.

The CIB's investments in revenue-generating projects alongside private and institutional investors increases grows our ability to fund and finance infrastructure. The CIB's investment and advisory functions encourage project sponsors to use project revenues to fund new infrastructure. These revenue sources enable the crowding in of private and institutional investment to improve project outcomes and reduce the draw on government balance sheet capacity. This gets more infrastructure built faster.

3.6 The CIB advances federal policy objectives in partnership with federal departments

Through its investments in priority sectors, the CIB has significant potential to contribute to and enhance the success of government policy objectives.

The CIB has built strong relationships with Infrastructure Canada, Finance Canada and other federal departments that are relevant to CIB's priority sectors of investment. Specifically, with INFC, the CIB has implemented an engagement strategy to support effective coordination and collaboration. Under the strategy, there are four engagement tables (Advisory and Investments, Corporate, Knowledge and Research, and Communications) that meet regularly to share information, discuss issues and ensure alignment with federal policy direction and activities.

Because interconnections between the CIB and other federal departments can be extensive, it is important to ensure that CIB investments and departmental policies or grant programs

are complementary and not in competition, so that collaboration between the CIB and departments will maximize the benefits of all federal funds available in the CIB's priority sectors. To that end, the CIB has also engaged relevant departments on policies and programs including the following examples:

- **Innovation, Science and Economic Development Canada (ISED)** – Universal Broadband Fund to coordinate on the deployment of large-scale broadband projects to provide minimum universal 50/10 Mbps access, and the Strategic Innovation Fund's Net Zero Accelerator with respect to opportunities in Clean Fuels, Hydrogen, CCUS and Industrial Retrofits, such as our investment in Algoma Steel.
- **Infrastructure Canada (INFC)** – Close coordination to design complementary programs for the funding and financing of ZEBs and public building retrofits, as well as coordinating with the priorities outlined in the Investing in Canada Plan.
- **Natural Resources Canada (NRCan)** – Financing of large, high priority clean power projects, including the Atlantic Loop, as well as aligning to government policy in carbon capture, and storage (CCS), hydrogen, clean fuels and small modular reactors (SMRs).
- **Transport Canada** – Development of the High Frequency Rail (HFR) project, evaluation of policy alignment in context of port infrastructure investments, and development of the New Westminster Bridge replacement alongside Public Services & Procurement Canada and INFC.

3.7 The CIB's investment framework aligns investment decision-making to deliver infrastructure projects in the public interest

The CIB's shareholder sets priority areas of investment through the SPA and other policy statements, alongside priorities for the benefits from infrastructure projects that should guide the CIB's investment decision-making. The CIB's investment framework guides investment decision-making to ensure consistency with these priorities. By operationalizing the investment framework, the CIB ensures it will make investment decisions in the public interest.

The Investment Framework follows four reinforcing components.

The four components of CIB's investment framework:

1 Focused on public impact

The CIB makes investments to achieve outcomes set by the Government of Canada under the CIB's Statement of Priorities and Accountabilities

The CIB sets quantified targets for the public outcomes in each priority sector, investments and the financial risks to achieve those goals.

2 Linking public outcomes and risk/return

For each investment, the CIB compares the public outcome that the investment will achieve against the cost to the Government of Canada (i.e., from the concessionary value of interest or the risk the CIB bears on its investment).

The CIB sets clear expectations in each priority sector and operate to achieve those objectives.

3 Operating within clear guardrails

The CIB evaluates investments with a rigorous check-list that ensures all possible steps have been taken to:

- attract private investment,
- maximize the public outcomes, and
- minimize the cost to the Government of Canada.

This ensures that the CIB is investing to address a "market failure" – not subsidizing private returns.

4 Driven by a policy-aligned portfolio strategy

The CIB ensures a diverse portfolio

- with projects from coast to coast to coast,
- in communities both large and small, and
- balanced between large, transformative projects with long development horizons and projects that can be delivered rapidly to benefit Canadians sooner.

Component 1: focused on public impact

Any infrastructure financed by the CIB must deliver public impacts. These impacts are measured according to defined metrics for public interest outcomes. The metrics for public interest outcomes follow from the federal government's priorities set out in the CIB Act, SPA, federal budgets, and other broader government policy to ensure its investing activities align to the public interest. These outcomes are approved through the CIB's Corporate Plan.

To quantity public interest outcomes, the CIB measures the degree to which the project:

- Reduces greenhouse gas emissions;
- Increases transit ridership;
- Expands broadband connections for Canadians;
- Increases value-added agricultural production;
- Increases the value of exports; and
- Benefits Indigenous communities.

The CIB has established a rigorous approach to measuring these outcomes, as outlined in its December 2022 Sustainability and Impact Report.

Component 2: linking public outcomes and risk/return

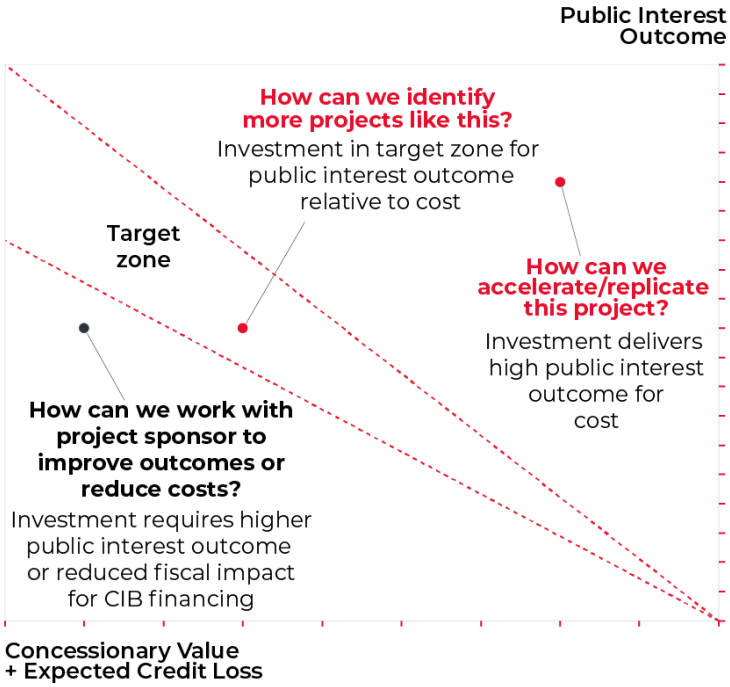
The CIB fundamentally differs from a traditional investor in how it measures the return on its capital. While a traditional investor seeks to maximize financial return, the CIB seeks to maximize the public interest outcomes that benefit Canadians.

To catalyze projects that benefit Canadians, the CIB has a $35 billion statutory appropriation with access to a maximum fiscal expense of $15 billion. This allocation enables the CIB to innovate new financial structures that shift risks, attract private capital and unlock novel cashflows to finance investments.

The allowable $15 billion fiscal expense gives the CIB flexibility to take more risk than could a private investor to finance infrastructure with potentially large public benefits. This fiscal impact of any investment reflects the risk assumed by the CIB and include a risk assessment, which incorporates market conditions, construction costs and other factors that could materially impact the likelihood of repayment.

In order to effectively target its investments and maximize public impacts, the CIB rigorously assesses each project according to "target zones" for each public interest outcome relative to

the amount capital deployed and estimated fiscal impact. The CIB calibrates the target zone for each public interest outcome for practical considerations of the given sector. For example, the target zone for power transmission reflects the larger capital cost, the risk profile and the high public interest outcomes, while the target zone for ZEBs reflects the smaller capital cost, different risk profile and outcomes from those investments.



This approach enables the CIB to work with proponents to build business cases that:

- Maximize a project's public interest outcomes (e.g., increasing the scale of a district energy project to allow it to connect to more premises and increase GHG reduction);
- Crowd in private capital to diversify the project's financing and reduce the CIB's investment; and
- Optimize risk transfer to mitigate paralyzing uncertainties while aligning incentives for the proponent to cost effectively deliver the project.

Component 3: operating within clear guardrails

This focus on public interest outcomes complements the CIB's guardrails for evaluating potential investments. The CIB's investment framework is bounded by two sets of "guardrails". These guardrails ensure that the CIB's investments are consistent with the CIB Act, aligned with federal policy objectives and reflect best practice amongst investment organizations.

The first set of guardrails speak to consistency with the purpose set by the CIB Act. These ensure that the proposed investment:

- infrastructure project within one of the CIB's priority sectors;
- Achieves one or more of our public interest outcomes;
- Is in or partially in Canada;

- Is revenue-generating (i.e., the investment grows the total funding available for infrastructure projects through a revenue source, cost savings or other source of income); and
- Involves private and institutional capital at an appropriate point in the project life.

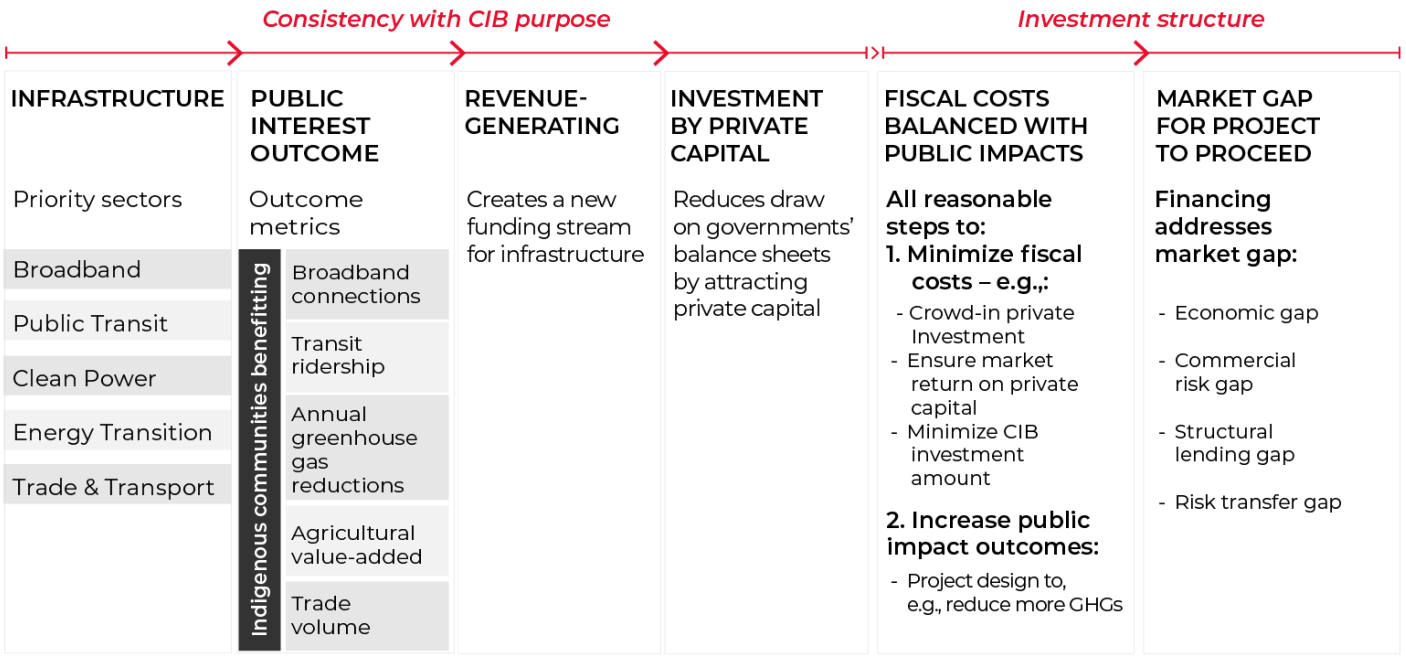
The second set of guardrails relate to investment structuring and ensure that the CIB investment is sized to address a gap that is preventing the project from proceeding:

- Without the CIB's financing, an identifiable barrier inhibits the project from proceeding, or would result in a substantially less efficient form.
- The transaction has reasonably balanced public impact outcomes with fiscal impacts, taking all steps increase outcomes (e.g., reduce more GHGs) while minimizing CIB fiscal impact (e.g., crowding in private capital, ensuring an appropriate market return on private capital, shrinking investment amount).

The guardrail concerning the identifiable barrier to the project proceeding is particularly important for the CIB deploying its capital most efficiently in the public interest. The rigorous emphasis on structuring financing around an identifiable barrier to the project proceeding is critical for the CIB avoiding displacing private investment.

The CIB's mandate is to maximize private investments in revenue-generating infrastructure with public benefits. The CIB only achieves this mandate by ensuring that its own investments are carefully tailored to overcoming a barrier that prevents or significantly slows a project from proceeding or limits the project's scale. This guardrail compels the CIB to deploy its capital to advance only projects that do face such a barrier (these barriers are outlined in sections 2.4 and 3.2).

To structure any investment, the CIB uses the right tool and calibrates its financing to address the specific risks inhibiting the project from proceeding. The CIB aims to catalyze private investment with a tailored structure that uploads the risk or overcomes the. If the CIB judges that a project would yield sufficient financial returns to proceed without the CIB's financing, the CIB will not invest.



Component 4: driven by a policy-aligned portfolio strategy

The CIB also seeks to catalyze a spectrum of project sizes and types for a diversity of communities across all regions of Canada and also mature Canada's ecosystem of private investors in infrastructure. The CIB's range of investments therefore involve differing outcomes, repayment period and investment size. The CIB's Investment Framework also includes achieving scale and diversity of projects across the CIB's portfolio.

For example, individual ZEB and retrofit projects under the Growth Plan are relatively small, are delivered relatively quickly, repay loans promptly and can be rolled out across every region of the country. However, larger, transformational investments, such as electricity transmission or public transit, involve long development lifecycles and are focused on specific regions.

The CIB's portfolio approach reflects its mandate to catalyze a diversity of project types in the federal government's priority sectors and across all of Canada's regions, rapidly addressing critical infrastructure gaps in the near-term while also mobilizing private capital for longer-term, transformational projects. Successful attraction of private capital in all regions and sectors requires a disciplined but balanced strategy for the CIB's whole portfolio.

3.8 The CIB plays a critical advisory role in complex, transformational projects

> *The CIB brings expertise and experience needed for a project of this scale. We look forward to learning more about this exciting project and hearing from our community partners about how this opportunity can support our tourism industry and get our economy back on track."*

Ric McIver,
Former Minister of Transportation for Alberta

Large, transformational projects are correspondingly complex to plan and deliver, requiring iterative front-end engineering design, alignment across many different stakeholders and significant timelines for impact assessment and regulatory approvals.

The CIB recognizes the catalytic role it can play in advancing major projects and is exploring approaches to increase its ability to support large, transformative projects in Canada as they advance from conception to execution.

The CIB's advisory function is designed to advance projects through early-stage development and into construction. It is a core element of developing the CIB's pipeline of investable projects. Most often, the CIB's advisory work is in the early development of projects and led by our investment professionals, for which project proponents may lack capacity or in-house expertise.

In some cases, the CIB will take on formal advisory mandates with public sector partners at the early stages of potential projects to scope and plan the project or identify delivery options and financing structures. In other instances, our involvement will provide early due diligence on the project and help proponents accelerate decision-making.

This function especially helps support federal departments, provinces, territories, municipalities, and Indigenous communities in moving project concepts to refined designs, evaluating the economics of these projects and identifying options for structuring financing. By providing experience for these partners with frameworks and processes for developing projects, the CIB's

support also helps these partners build their own capacity for future project development.

From inception, the CIB has been engaged on the largest, nation-shaping potential projects in Canada. However, many of these face further multi-year horizons of concerted development effort before final investment decisions. The CIB brings its advisory capabilities to bear to advance these projects, providing critical support to determine costs, benefits, risks involved, and potential to attract private and institutional capital to support decision-making by project sponsors.

Consider four examples of large-scale projects that demonstrate the long planning horizons involved in major infrastructure projects:

- **Atlantic Loop:** The CIB is investing in clean power across Atlantic Canada through projects which include wind, storage and power. The centrepiece of this project is the "Atlantic Loop," a bidirectional transmission line that will enable the export of clean baseload power from Quebec and Newfoundland and Labrador to New Brunswick and Nova Scotia. This project involves investments in transmission that would connect to other renewable generation and energy storage projects to reduce fossil fuel-based electricity generation in Atlantic Canada. The CIB is leading the financial workstream for the project and participates at a working table with the provinces, their respective utilities and other federal government departments and agencies.
- **High-Frequency Rail:** Construction of additional rail infrastructure in the Quebec City – Toronto corridor would increase usage of inter-city passenger travel by rail, providing reliable substitutes for car and airline travel and consequently displacing more emission-intensive transportation modes. Since December 2018, the CIB has helped refine the business case for high-frequency rail, provided advice on shifting key project risks to the private sector, and developed financing structures and mechanisms to catalyze the ultimate investment. The CIB collaborated on project due diligence, financial advisory services and helped to fully develop the project's scope of work.
- **Kivalliq:** This combined electricity transmission and fibre optic line will connect Manitoba with the west side of Hudson Bay in Nunavut. Once built, the transmission link will displace diesel-fueled generation in five communities and mines with emission-free hydroelectricity power from Manitoba, and the broadband connection will enable high-speed access to remote education, healthcare and other services for ~15,000 people across five Inuit communities. The CIB has directly advised the Kivalliq Inuit Association, provided development capital, helped secure

partnerships for constructing and operating the project, arranged equity contributions and other financing, and coordinated financial and legal support to accelerate this project.

- **Hydrogen Hubs:** Hydrogen is critically important as a zero-emission fuel to facilitate a net-zero transition in a variety of hard-to-decarbonize applications. For example, alongside its use today as a refinery input and in fertilizer production, hydrogen can be used directly in fuel cell electric vehicles, steel production and power generation, reducing or eliminating greenhouse gas emissions. Across regions, Canada has natural advantages for zero-emission production of "green" (produced from electrolysis using renewable power), "pink" (electrolysis using nuclear power) and "blue" hydrogen (produced from reforming methane and capturing carbon dioxide for storage). However, realizing Canada's potential requires strong coordination between multiple large projects – from expanding zero-emission production to building efficient logistics systems to reduce distribution and storage costs to competitively integrating hydrogen at scale into end-uses. This "chicken and egg" coordination problem is a key area where flexible financing from the CIB can accelerate projects. The CIB is working closely with other government departments to engage with project proponents on approaches to accelerate these potential projects.

The CIB is a critical source of financial and project development expertise, necessary for federal, provincial, municipal and Indigenous project partners to understand the economics of their projects and the necessary steps to advance them.

The CIB also provides this advisory role to project sponsors from other levels of government on projects of all sizes to help take projects from concept into early stages of delivery. As two examples of such engagements:

- **Georgina Island Fixed Link:** The CIB helped the Chippewas of Georgina Island First Nation, assess the planning requirements and revenue potential for a proposed 3 km all-seasons bridge to provide reliable, year-round access to the mainland. As an island community on Ontario's Lake Simcoe, members of the First Nation presently rely on a ferry crossing and winter ice road. This means that, among other challenges for the community's social connections and economic development, students must reside away from their families in order to attend high school. The First Nation sought to assess the economic case for a bridge financed by tolls, which would eliminate risks of traversing the ice road and connect community members with year-round

employment opportunities. Filling gaps in the First Nation's in-house expertise, the CIB advised the community on its economic evaluation and scoping for the project, including estimated costs, permitting processes and potential financing. This has positioned the First Nation to engage with governments around funding for a project that would be transformational for the community.

- **The Ridley Island Export Logistics Project at the Port of Prince Rupert:** The CIB has worked with the Prince Rupert Port Authority and its logistics operator, DP World, to develop the business case for a modern facility to facilitate "export transloading" (i.e., offloading bulk commodities for export from rail to containers). The CIB's advisory capabilities are a key complement to its investing activities. Advisory activity supports project sponsors in shaping their projects to a stage where final investment decisions can be taken.

At the same time, the CIB seeks to leverage its unique expertise and ability to blend investment and advisory capabilities and limits its advisory capability to these unique areas. For example, the CIB does not compete with the private sector for transaction advisory mandates from other levels of government.

3.9 The CIB has aligned its knowledge function to accelerate investment

As outlined in the Minister's SPA, "The CIB helps public dollars go further by investing in revenue-generating infrastructure projects in the public interest and developing innovative financing tools. The goal Is more infrastructure built across the country." The CIB has aligned its knowledge functions consistent with this objective: catalyzing greater overall investment in infrastructure projects in the public interest.

This means that it is imperative that the CIB's Knowledge and Research initiatives complement its advisory work and inform the CIB's investments. The CIB's Knowledge and Research activities can:

- Inform the CIB and market participants on the considerations involved in investing in a sector;

- Convene stakeholders to develop a path forward for infrastructure development in a CIB priority sector;
- Assess public policies necessary to catalyze greater investment in infrastructure projects in the public sector; and
- Increase public awareness of the benefits and opportunities from greater infrastructure investment in the CIB's priority sectors.

The CIB's Knowledge function actively interfaces with the CIB's Advisory and Investment functions through the investment lifecycle akin to "three strands of a braided rope". Knowledge both complements these functions with investment-driven research and compiles details around the CIB's innovations in infrastructure financing (e.g., transaction structures and precedent forms for risk allocation).

The CIB maintains a strategic perspective on infrastructure trends globally through monitoring and analysis of data on investments from a variety of databases and market intelligence services. The CIB leverages statistics and datasets maintained by different governments and agencies – and actively uses data published by Statistics Canada – to understand evolving infrastructure needs and challenges. With long expertise for collecting detailed data on Canada's stocks and investment flows for physical fixed assets, Statistics Canada has also advanced its capabilities for geospatial analysis of infrastructure quality and use.

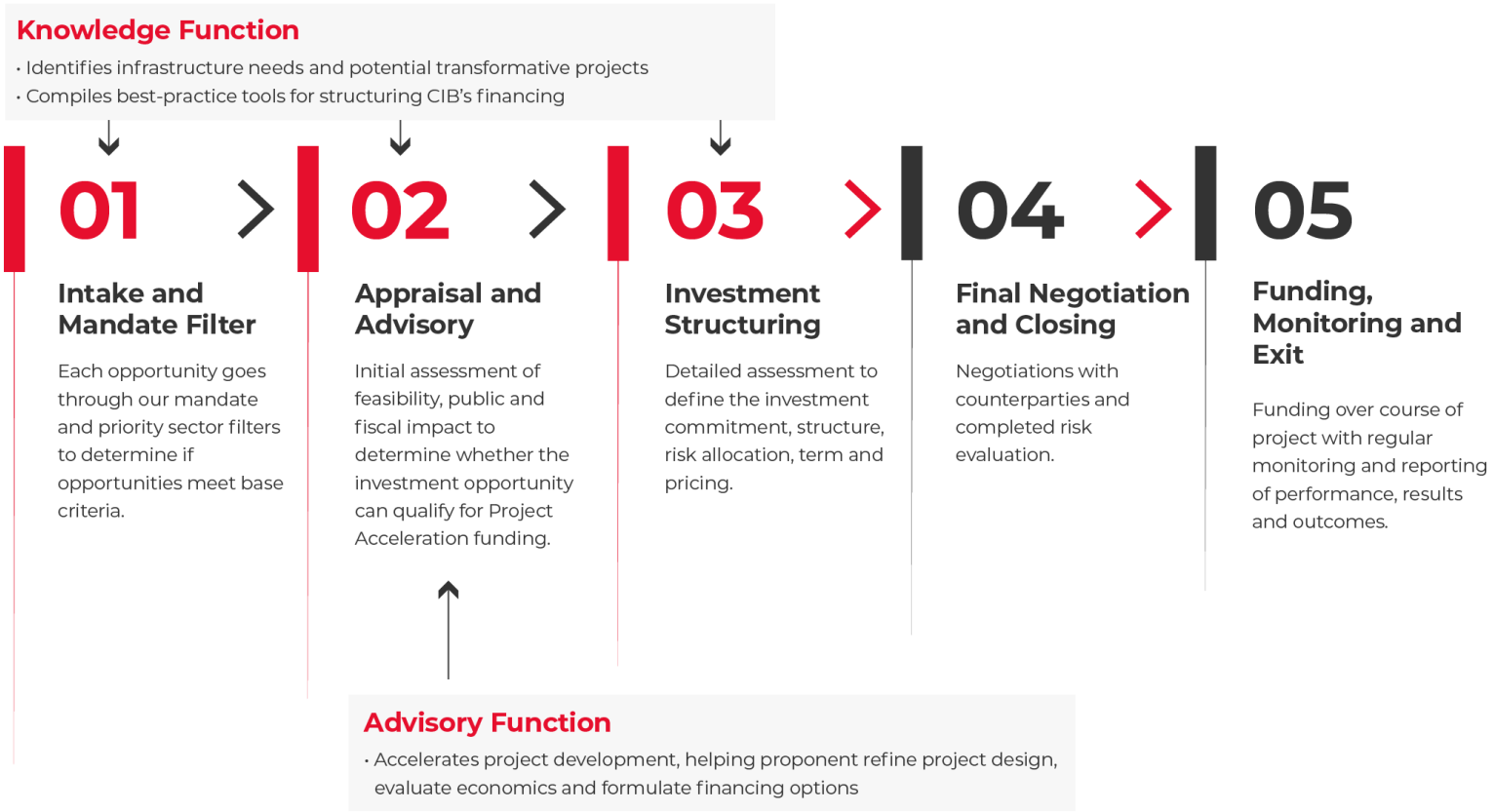
The CIB seeks to target its knowledge and research partnerships in ways that will both inform our partners and sectors of important trends, challenges and opportunities, and ensure better public awareness and broad understanding of the benefits, opportunities and challenges in delivering needed infrastructure. For example, the CIB partnered with the Canada Green Building Council and Delphi Group to deliver a study on workforce capacity and supply chain challenges in catalyzing needed retrofit volumes, and on a project with the Conference Board of Canada on opportunities to take remote northern communities off-diesel. A list of the CIB's Knowledge and Research projects is provided below.

Research project	Partners	Investment impact
Green Retrofit Economy Study	Canada Green Building Council and Delphi Group	The CIB's investments in deep retrofits to improve the energy efficiency of existing buildings are critical for Canada's targets for reducing greenhouse gas emissions. This study evaluated to the potential for Canada to scale up retrofits for large industrial, commercial and multi-residential buildings, identifying options to address workforce needs and supply chain bottlenecks.
Secure Smart Cities: Making Municipal Critical Infrastructure Cyber Resilient	Cybersecure Policy Exchange at Toronto Metropolitan University	This study assessed risks and identified key safeguards against cyber attacks on internet-connected "smart" infrastructure in Canadian cities. As the CIB makes investments in public transit and energy infrastructure, understanding the cybersecurity implications is critical for the reliability of these assets.
Clean Power Roadmap for Atlantic Canada	Natural Resources Canada, Governments of New Brunswick and Nova Scotia, and provincial utilities	This collaborative work with federal and provincial governments, as well as utilities from across the Atlantic region, assessed the costs and economic viability for generation and transmission build-out to decarbonize the region's electricity supply while ensuring reliability and affordability. This study directly informed the CIB's consideration of structuring of investments in the Atlantic Loop and related generation assets.
Land value capture for public transit projects	Infrastructure Institute at the University of Toronto	Various jurisdictions internationally have employed tools to capture part of the appreciation of land value that results from public transit expansion, using these revenues to pay for the upfront capital costs of high-quality public infrastructure. The CIB supports this work to understand how these revenue tools can be effectively designed and how financing for public transit projects can be structured around land value capture in Canada.
Climate Impacts on Canada's Electricity System	Canadian Energy Research Institute	The impact of climate change on electricity systems will have significant implications for the CIB's investment targets to reduce greenhouse gases from power generation while promoting reliability. This research highlighted resilience challenges for electricity infrastructure resulting from adverse weather events, and will help inform the CIB's strategy for investments in clean power to support reliability through the energy transition.
A Microgrid Playbook: Conditions and Opportunities for Investment	The Conference Board of Canada	To inform the CIB's investments in Clean Power, the CIB collaborated on developing a "playbook" for strategies for deploying microgrids in rural and remote communities. Microgrids provide particular opportunity for community-led energy in Indigenous communities. Leveraging solar and wind resources complemented by energy storage, microgrids help displace the diesel generation while avoiding the high cost of transmission build-out.
Sustainable Finance Roundtables	Public Policy Forum	Sustainable finance is critical to investments within the CIB's priority sectors, and the CIB contributed to roundtables around climate analytics, capital mobilization and expansion of the "green bond" market in Canada. The CIB's Growth Plan was a focus of these roundtables and the initiative informed the CIB's strategies for mobilizing private capital for infrastructure investments that reduce greenhouse gases.

3.10 The CIB's Knowledge and Advisory functions propel the CIB's investment pipeline

The CIB targets its Knowledge and Advisory functions to identify potential infrastructure needs, build a project pipeline and accelerate project development. By providing insight and guidance to proponents at critical points in the CIB's investment process, these functions aim to expedite ultimate decisions on investments. As shown below, the CIB leverages these functions at specific steps of its investment process to move projects forward and inform decision-making on investments.

By forming research partnerships to analyze infrastructure needs, the Knowledge function helps the CIB target important project types and build a pipeline of potential projects. Examples include the CIB's work with the Canada Green Building Council to assess retrofit needs and collaboration with other government and industry partners to author the Clean Power Roadmap for Atlantic Canada. These research partnerships yielded knowledge that informed ultimate investments. The Knowledge function also maintains intelligence on



project financing trends internationally, supporting the best-practice structuring of the CIB's financing to address the specific barriers facing a project.

The CIB's advisory function brings our expertise and insights to federal, provincial, territorial, municipal and Indigenous partners to help analyze potential projects and models to determine options for advancing and where it may be appropriate for the CIB model. This could include discussing steps that the proponent would need to take to have a potentially financeable project – such as identifying requirements for the development of a business case and possible scenarios regarding revenue-generation.

3.11 The CIB's unique approach to investing in partnership with and benefit for Indigenous communities

> *"[The long-term funding of this project] exemplifies a great working relationship between our municipal First Nations Government and the CIB. The agreement reminds me of why our Nation decided to go down the Self-Governing path in the first place. It shows how issues can be meaningfully addressed through a collaborative discussion and agreement. This bodes well for the future."*
>
> **Chief Henry Warren Paull,**
> shíshálh Nation

The CIB has adapted its activities to partner with First Nation, Métis and Inuit communities to make critical investments in community infrastructure. The CIB has established a dedicated, specialized team with subject matter experts and Indigenous representation to deliver this initiative.

The CIB supports the infrastructure aspirations of Indigenous communities in three ways:

1. Through the Indigenous Community Infrastructure Initiative (ICII), the CIB works in close partnership with communities to build their priority infrastructure. ICII is the same disciplined investment approach that the CIB brings to all its projects, scaled down to the size of community infrastructure projects. It provides affordable, long-term financing for community-based projects across the CIB's priority sectors.
2. The CIB recognizes the importance and impact of large-scale infrastructure projects and how they can benefit Indigenous communities. The CIB supports Indigenous participation in large-scale projects including partnerships that ensure communities can benefit from the employment and procurement opportunities, as well as investing alongside Indigenous communities in projects – such as Bekevar Wind Power or Oneida Energy Storage
3. The CIB provides advisory expertise and project acceleration funding to projects to accelerate development and planning to bring projects to investment readiness.

The CIB's investments in these infrastructure projects are adapted to the unique challenges that come from smaller scale, remote locations and limited access to credit. The CIB's ICII is helping to build more capacity for Indigenous communities and their members to understand and take on debt financing. The CIB is also educating commercial lenders about opportunities and helping build their capacity to support Indigenous communities' infrastructure investments.

CASE STUDY: Port Stalashen Wastewater Treatment Plant

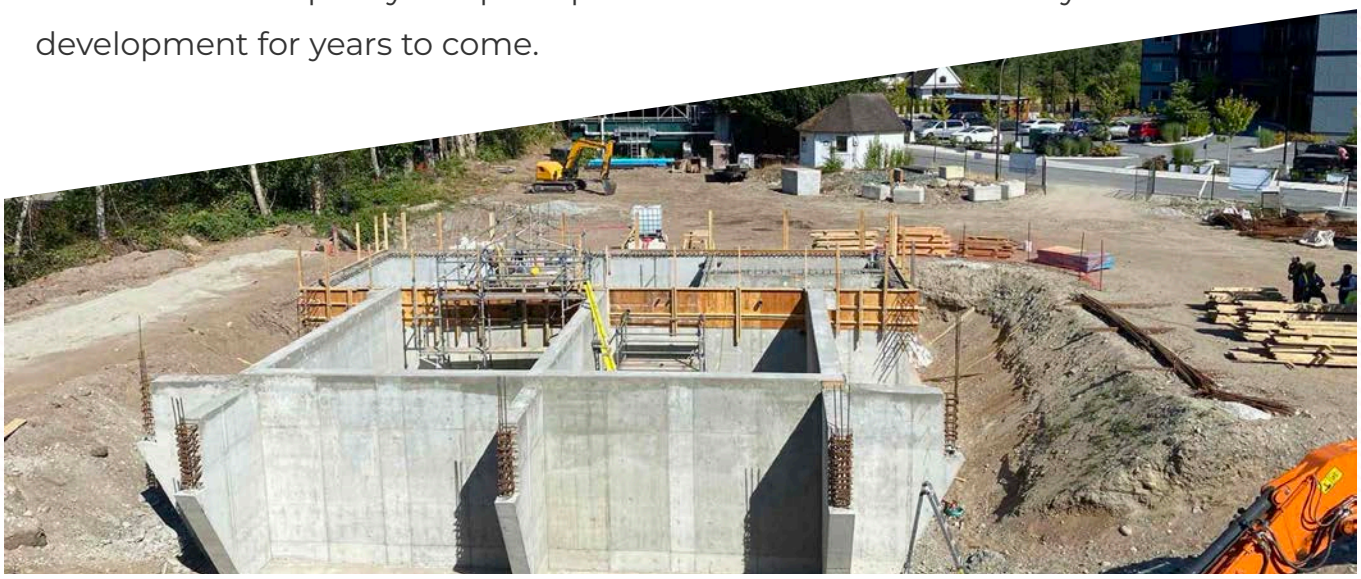
- 6.4 million CIB investment
- Fully Indigenous-owned and operated
- Enables economic growth, protects coastal environment and public health
- Additional capacity to connect more building and residents, growing community

Wastewater treatment plants are essential to communities' quality of life. They ensure wastewater is properly treated to reduce risks to public health and safeguard against the spread of waterborne pollution.

As part of our Indigenous Community Infrastructure Initiative, the CIB invested $6.4 million in the new Port Stalashen Wastewater Treatment Plant. The plant will be located on shíshálh Nation lands near Sechelt, British Columbia, and will play a critical role in enabling economic growth, protecting the coastal environment, and safeguarding public health.

The current wastewater treatment plant has reached its end of life. This new replacement facility will serve 91 connected residential units and support the conversion and connection of 88 buildings, which currently rely on septic wastewater systems.

By tapping into CIB financing, the shíshálh Nation will access affordable capital to accelerate and future-proof their community's infrastructure needs. The additional capacity this plant provides will enable community-based development for years to come.



04.

RESULTS AND IMPACT

- The CIB's performance reflects its mandate for public impact rather than financial return, aiming to catalyze private investment and accelerate project delivery for infrastructure that would not otherwise get built.
- The CIB has made investment commitments to 46 projects totaling $9.7B as of March 31, 2023 – 45 of these since the announcement of the CIB's Growth Plan – with a total capital value of $27 billion.
- The CIB sets both annual and longer-term performance objectives across a balanced scorecard based on the combination of deal flow, fiscal impact, public outcomes, and organizational health.
- As of March 31, 2023, the CIB has committed to projects that have crowded in $8.6 billion in private sector and institutional financing.

4.1 The CIB catalyzes public impact rather than seeking financial return

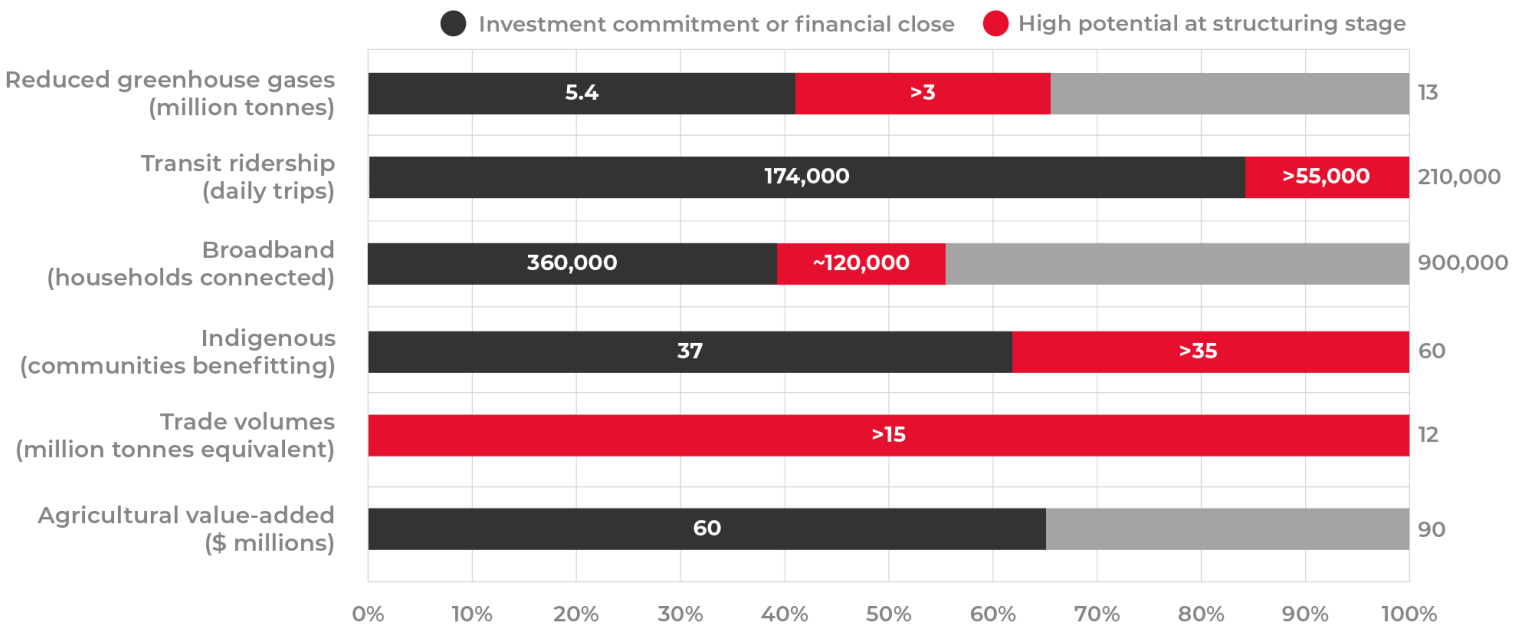
As an impact investor, the CIB is focused on achieving public impacts that are of benefit to Canadians. Based on the SPA, the CIB defines this impact based on the outcomes its projects deliver – specifically, reducing GHG emissions, increasing transit ridership, connecting Canadians to broadband, the number of Indigenous communities benefitting from investments, and trade as measured in the volume of goods and agricultural value added.

These public impacts result from investments that the CIB's financing catalyzes. These projects would not get built without the CIB addressing the barriers that hold back a final investment decision. Without the CIB's financing, proponents would not have gone ahead with the project, would have only built a smaller project or the project would have languished.

The value of these projects and the corresponding public interest outcomes have only happened because the CIB has resolved the barrier – whether an economic barrier facing returns for a broadband project or the lack of financing for cost savings on retrofits or zero-emission bus roll-out.

The CIB has made significant progress to its public interest outcome targets for 2026-27. This is based on the outcomes anticipated from the 42 projects that have reached financial close as of the end of March 31, 2023, along with expected outcomes from projects with investment commitments and high potential projects earlier stages in the development pipeline.

Progress towards 2026-27 outcomes targets



These public impacts result from projects for which the CIB has attracted new private capital to modernize Canadian infrastructure. As of March 31, 2023, the CIB has committed to projects that have attracted $8.6 billion in private sector and institutional financing. This includes:

- $900 million in Broadband
- $1.5 billion in Clean Power
- $1.9 billion in Green Infrastructure
- $4.0 billion in Public Transit
- $300 million in Trade and Transportation

The CIB is making continued progress towards its long-term investment targets in each priority sector. The steepening climb of the CIB's cumulative investment commitments exhibit the acceleration of its financing activity in the past years.

As noted earlier and underscoring the Government of Canada's confidence in the CIB to support Canada's transition to net-zero, Budget 2023 increased the CIB's investment targets to at least $10 billion for Clean Power and at least $10 billion for Green Infrastructure. [16]

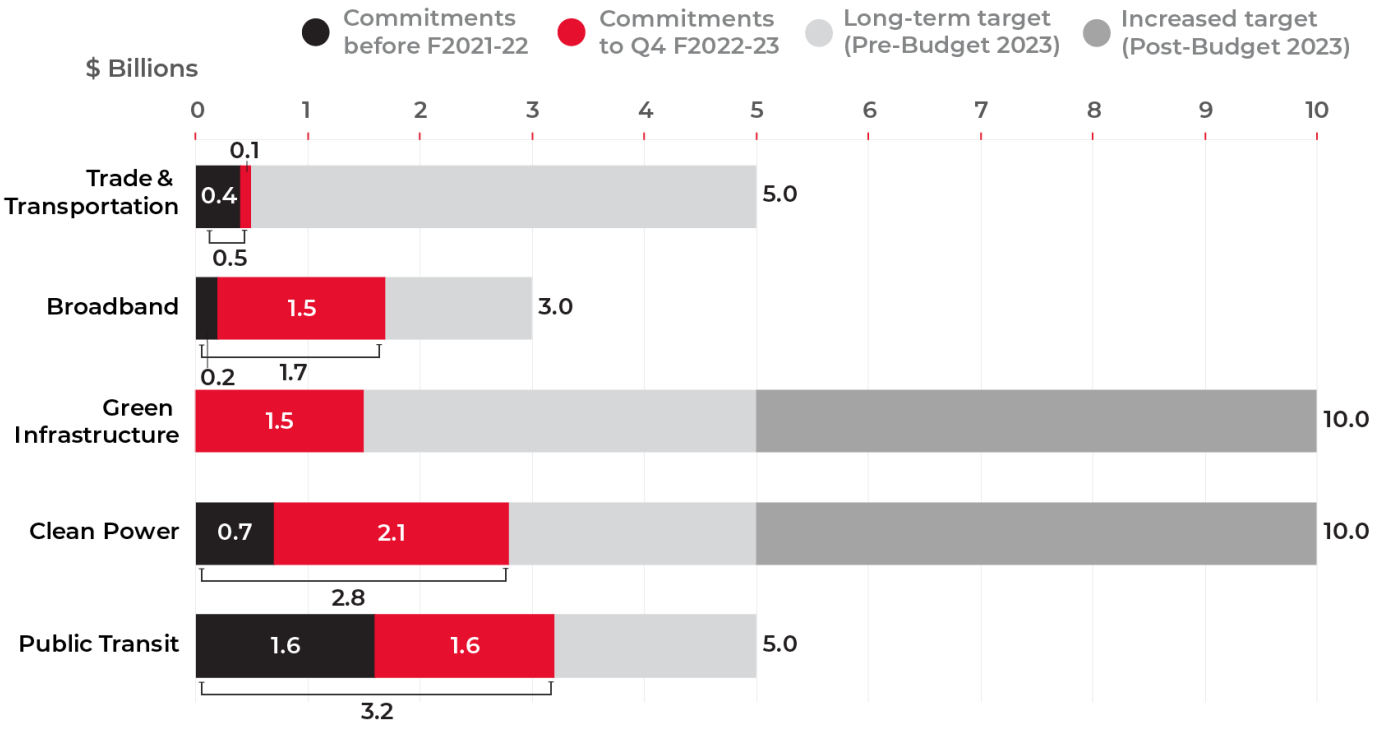
[16] Government of Canada (2023) Budget 2023 – A Made-in-Canada Plan: Strong Middle Class, Affordable Economy, Healthy Future. Available online: https://www.budget.canada.ca/2023/report-rapport/toc-tdm-en.html

As of March 31, 2023, the CIB has committed $9.7 billion to 46 projects with a total capital value of $27 billion.

The CIB has reached financial close on 42 projects and has 29 projects in active construction and one investment in operations.

Progress towards long-term investment targets

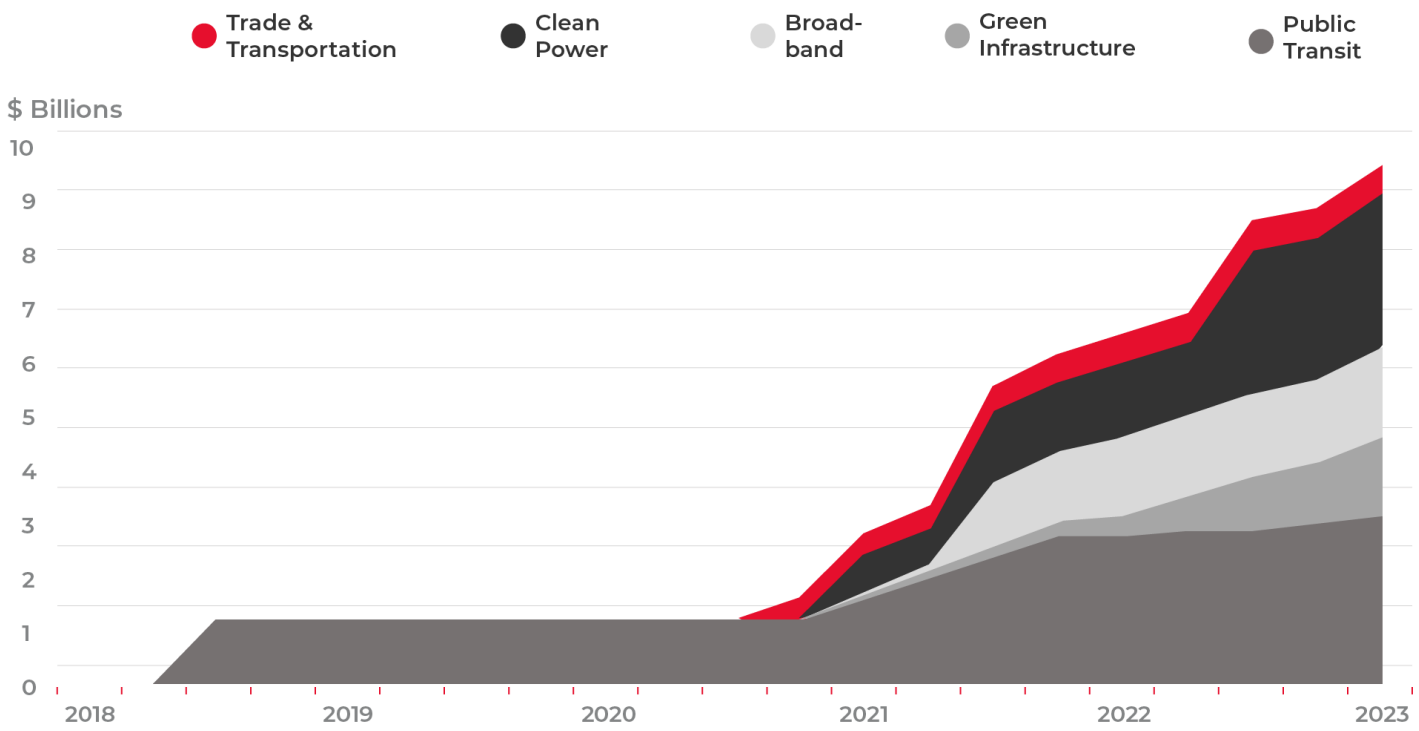
(based on project reaching investment commitment or financial close)



CIB's total announced investment commitments at fiscal year-end

Cumulative CIB investment commitments

(by priority sector and calendar date of investment commitment)



4.2 The CIB's investments are making tangible benefits in Canadians' lives

> *"Together, we are not only leveling the economic playing field but also bringing essential services to underserviced Canadians in Manitoba."*
>
> **Hank Wall,**
> Valley Fiber Limited

Infrastructure projects require long lead-times from concept through development and into construction. However, with the success of the CIB's efforts, Canadians are witnessing real impacts from its investments.

Current outcomes of the CIB's investments include the following:

- The City of Edmonton procured a new fleet of 20 zero-emission buses, which entered full operation in November 2022.
- Electric school buses are on the road in Quebec as a result of the CIB's investments with Autobus Séguin and the Bus Carriers Federation.
- Modernization investments in Alberta irrigation are operational, improving water security and helping farmers confidently expand crop cultivation.
- For the Enwave District Energy project to supply low-carbon district energy in Toronto and Mississauga, all heat exchangers have now been installed and commissioned.
- The CIB's investment in extending fibre-optic cable to rural Manitoba communities has already extended highspeed internet access to approximately 10,000 households.
- Construction is underway on one of the world's largest raw wastewater energy transfer systems at Toronto Western Hospital, which will provide 90 percent of the hospital's heating and cooling on completion.

Finally, the first stage of the REM project will open later this year. Montreal is undertaking its largest transit overhaul in more than half a century with construction of the REM – an automated electric light rail system that will nearly double the city's transit capacity, relieve chronic congestion and reduce greenhouse gas emissions.

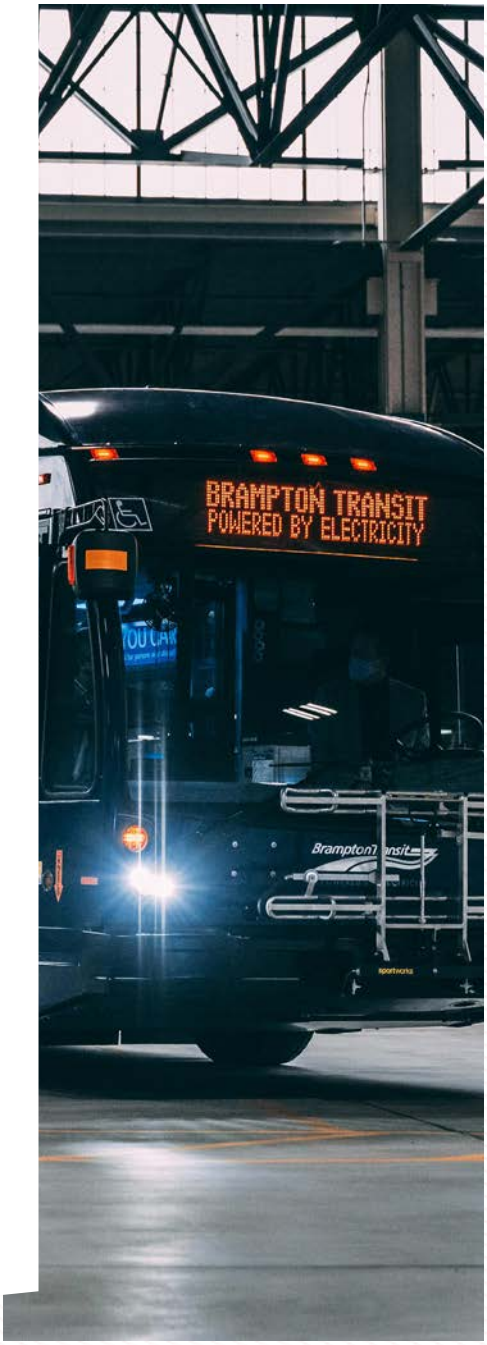
The $6.9-billion project with its 26 stations and 67 km of track will reduce commuting time, with cars arriving every 2.5 to five minutes and Montreal Pierre Elliot Trudeau International Airport being just 20 minutes from the downtown core. The REM effectively eliminates the physical divide between Brossard and Montreal, thus creating a real connection from the South-Shore to the island.

CASE STUDY: Helping municipalities and school boards to accelerate zero-emissions bus purchases

Canadian bus manufacturers have a welcome challenge on their hands: keeping up with the growing demand for electric buses amid a concerted national effort to curb greenhouse gas emissions.

For transit authorities and school boards, the switch from diesel to electric transit buses, can be double or triple fossil-fuel powered versions, but each vehicle can save about $50,000 per year from lower maintenance and electricity prices.

The CIB is a key investment partner to significantly increase access to sustainable public transit and to achieve the Government of Canada's goal of 5,000 ZEBs, covering the higher upfront capital costs of zero-emission vehicles compared with diesel buses. It has committed more than $1 billion so far to help transit agencies in Brampton, Edmonton, Ottawa, Durham Region and Calgary, and nearly $500 million towards school bus operators in Quebec and B.C. to modernize their fleets.



4.3 The CIB's early advisory work underscores its value in active project development

Through its project development experience, the CIB has built knowledge and processes to inform effective evaluation of other proposed investments. Working from the outset to refine project designs and financial structures on many different projects builds the CIB's muscles for accelerating the delivery at every stage of the project lifecycle.

For High Frequency Rail and the Atlantic Loop, the CIB has spearheaded critical steps in the economic evaluation and refinement of technical design. The CIB's advisory work has advanced these projects from initial concepts through to creating options for structuring investments. The CIB is presently leading similar advisory work on the proposed Calgary-Banff rail line.

The CIB's early involvement with these projects provided critical, independent perspective to size the potential public benefits, determine the economic case for the investment, and accelerate the final investment decision. Even if the ultimate decision on an investment is negative, a more rapid decision is valuable for all potential partners and stakeholders, allowing time and resources to be directed elsewhere.

These examples also underscore the CIB's value to federal departments, provinces, territories, municipalities, and Indigenous partners through the provision of unique project development capabilities. The CIB's advisory engagements show how partners can benefit from the CIB's support to advance a concept through front-end engineering design, engage with stakeholders, evaluate project economics, and structure financing options. The CIB's advisory work equips these entities to engage with potential partners for financing.

The following advisory engagements shows the CIB's impact on developing projects and accelerating investment decisions on infrastructure with potential public impact.

Advisory engagement	The CIB's role	Impact
High Frequency Rail	The CIB advised the Government of Canada on a proposal from VIA Rail to deliver high frequency rail service on dedicated tracks along the Quebec City-Toronto corridor.	With VIA Rail, the CIB established a joint project office to accelerate project development, including scoping and costing of the project, as well as identifying options for financial structuring. This allowed the Government of Canada to proceed with further procurement for this project with increased confidence around the design, capital costs and business case.
Atlantic Loop	In collaboration with federal and provincial government departments and regulators, the CIB led the financing workstream of the Atlantic Loop working table, aiming to cost-effectively implement the Clean Power Roadmap for Atlantic Canada.	The CIB led financial and economic analysis for a complex set of alternative designs for financing the Atlantic Loop with the aim of reducing greenhouse gas emission and mitigating the impacts on electricity rates.
Kivalliq Hydro-Fibre Link	The CIB advised the Kivalliq Inuit Association on the construction of a 1,200 km combined power transmission and fibre-optic cable project to provide both reliable, low-carbon electricity and broadband connectivity to Nunavut from Manitoba.	The CIB's financial analysis, evaluation of the project's economic implications and revenue potential, and assessment of environmental and social benefits positioned the proponent to further engage with governments around funding and its accelerate investment decision.
Calgary-Banff Rail	The CIB advised Alberta Transportation and the Invest Alberta Corporation on an economic assessment and development of this project as a public-private partnership.	The CIB's investment and advice accelerated the project's upfront scoping of design and costs so that Alberta could action further project development and the financing structure would appropriately share risks with private-sector partners at all phases.
Highway 697 Toll Bridge	For Alberta Transportation, the CIB will review of a proposed Highway 697 Toll Bridge to replace a seasonal ferry and ice road currently carrying traffic across the Peace River.	The CIB will conduct geotechnical reviews and land surveys, review estimated project costs and revenues, explore financing options and evaluate user-pay potential to inform Alberta Transportation on the economic benefits and feasibility of the project.
Municipal District of Acadia and Special Areas Irrigation	The CIB will examine the region's potential for irrigable land to advise the Government of Alberta and the Municipal District.	By assessing potential environmental impacts, capital costs and delivery models, the CIB will determine the viability of large-scale irrigation infrastructure to increase primary crop production, water security and storage capacity, helping to mitigate the impacts of climate change.
New Westminster Rail Bridge	The CIB will collaborate with federal departments to examine transportation needs of the Asia-Pacific Gateway transportation network.	The CIB's assessment identified recommendations for improving the capacity across the BC's Lower Mainland, Prince Rupert and New Westminster Rail Bridge transportation networks in order to enhance Canada's competitiveness as a conduit for Asia-Pacific trade.

Advisory engagement	The CIB's role	Impact
Taltson Hydro-electricity Expansion	The Government of the Northwest Territories engaged the CIB to develop the financial structure and business case for the project.	The CIB's expertise will assist the Northwest Territories in developing a business case for constructing a hydroelectric facility to deliver clean, affordable, reliable energy and replace diesel generation in the North and South Slave regions.
Georgina Island Fixed Link	The CIB advised the Chippewas of Georgina Island First Nation on a fixed link bridge to replace a ferry and ice-road for reliable, all-season connection of the island community with the mainland.	The CIB's advice helped the First Nation understand the capital costs and viability of a user-pay model to fund the bridge, expediting project development and positioning the community for informed engagement with governments for other sources of funding.
Pirate Harbour Wind Farm	The CIB is advising the Port Hawkesbury Paper Mill on the development of a wind farm to optimize the mill's energy use while providing grid generation with reduced greenhouse gas emissions.	The CIB's due diligence and financial modelling will expedite an investment decision by analyzing the project's costs and revenues, identifying financing options, and assessing environmental and economic benefits.
Newfoundland & Labrador Fixed Link	The CIB studied options for Newfoundland and Labrador to construct a fixed transportation link between Labrador and the island of Newfoundland.	The CIB built on earlier costing and revenue studies to analyze potential usage, evaluate economic impacts and assess potential transaction structures.

4.4 The CIB is delivering infrastructure in partnership with, and with benefit for, Indigenous communities

The CIB has made $316 million in investments in partnership with and benefit to Indigenous communities towards the $1 billion target outlined in the 2021 SPA.

Since launching its Indigenous Community Infrastructure Initiative (ICII), the CIB has made $195 million in investment commitments to seven projects in Indigenous communities across seven provinces and territories.

These projects support community-led economic development and empower communities as project developers. As they enter operations, they will deliver tangible benefits to communities:

- The Tshiuetin Railway project will support the railway's Indigenous owners to modernize the railway and provide critical rail service to three remote communities in northeastern Quebec.
- The Kahkewistahaw Landing project – a multi-use gathering place for community, sport and business activities – also exemplifies community-led economic development. The CIB has partnered with the Kahkewistahaw First Nation to develop its urban reserve lands more quickly and efficiently. The CIB's investment will finance enabling roadway, utility and broadband infrastructure for the development of a medical centre, commercial units, an office centre, hotel and conference centre, industrial bays and institutional buildings.
- The Arrow Technology Group broadband project is supporting a majority First Nations-owned business to expand their operations and services with 50/10 mbps internet to 20 Indigenous and four rural communities in Alberta that did not have access.

The CIB has as of March 31, 2023 reached financial close on two projects with Indigenous ownership outside of the ICII: the Oneida Energy Storage project, which has ownership by the Six Nations of the Grand River Development Corporation and the Mississaugas of the Credit First Nation; and the Bekevar Wind project, which has ownership from the Cowessess First Nation.

> *"Tshiuetin Railway is our lifeline. All the goods and supplies we need arrive once per week on the train. Without any road access, there is no reasonable alternative and cost of living would be much higher. It is also the only economical way of travelling outside the community, whether to visit family, for services not offered in our region, for shopping or for leisure. These investments will make a big difference in our daily lives by making the long 13-hour trip shorter, more comfortable and safer. The Canada Infrastructure Bank financing was the only affordable solution to allow our railway to expand and offer the services our community members deserve."*
>
> **Chief Theresa Chemaganish,** of the Naskapi Nation of Kawawachikamach

The CIB includes a share of its investment in the project, proportionate to the share of Indigenous equity ownership, towards its target of $1 billion in investments in partnership with and with benefit to Indigenous Peoples. This stands at $121 million across the two projects.

The CIB also supports Indigenous communities with advisory and project acceleration:

- The CIB is providing project acceleration financing to support the Chippewas of Georgina Island in the early development phase of the fixed-link project to provide safe, year-round access to their community that currently relies on a diesel ferry through most of the year and a winter ice-road.
- The CIB is advising the Kivalliq Inuit Association on the construction of a 1,200 km combined power transmission and fibre-optic cable project to provide both reliable, low-carbon electricity and broadband connectivity to Nunavut from Manitoba. The CIB's financial analysis, evaluation of the project's economic implications and revenue potential, and assessment of environmental and social benefits positioned the proponent to further engage with governments around funding and accelerate its investment decision.
- The CIB has partnered with the Aboriginal Financial Officers Association and TD Bank to develop a project financing certification program that will strengthen Indigenous Peoples' and communities' abilities to structure and manage large infrastructure projects.

The CIB has developed a skilled team with representation from the Indigenous communities with which we partner to deliver on these initiatives. The team meets regularly with communities, promotes Indigenous inclusion across the industry, and is often featured as a leader at infrastructure conferences.

Indigenous infrastructure projects

Project	Province/ Territory	CIB Investment	Impact
Arrow Technology Group Broadband	Alberta	**$8.1 million**	Broadband connectivity to expand in unserved and underserved communities Majority First Nations-owned business expands services to Indigenous and rural communities
Kahkewistahaw Landing Infrastructure	Saskatchewan	**$15.4 million**	Improve culturally sensitive social services needs in urban areas Provide a cultural environment for First Nations' members
Netmizaaggamig Nishnaabeg Reserve Extension	Ontario	**$7.9 million**	Enables future businesses and residences electricity, water and broadband connections
Tshiuetin Rail Modernization	Quebec and Newfoundland and Labrador	**$50 million**	Improve passenger and freight service on first Indigenous-owned railway in Canada Ensure reliable and affordable lifeline for the northern communities across northern Quebec and Labrador
Atlin Hydroelectric Expansion	British Columbia and Yukon Territory	**$80 million**	Reliable, clean energy for ten Yukon First Nation communities and seven municipalities Led by the Tlingit Homeland Energy Limited Partnership, which is fully owned by the Taku River Tlingit First Nation
Oneida Energy Storage	Ontario	**$170 million**	Reduced greenhouse gas emissions by displacing gas generation with battery capacity to store clean electricity during off-peak hours
Bekevar Wind	Saskatchewan	**$173 million**	Supply 200MW of zero-emission power to the local grid, providing more than 100,000 homes with clean, sustainable electricity
Port Stalashen Wastewater Treatment Plant	British Columbia	**$6.4 million**	Protect the coastal environment and safeguard public health Enable economic growth through capacity to connect more buildings and residents to treatment plant
Georgina Island Fixed Link	Ontario	**Memorandum of Understanding for Advisory**	Safe, dependable all-year access to employment and education, health services (particularly for emergencies) and essential goods and services Discontinuing use of diesel fuelled ferry service
Kivalliq Hydro-Fibre Link	Nunavut and Manitoba	**Memorandum of Understanding for Advisory**	Increased use of renewable and reliable hydroelectricity in Canada's north Broadband connectivity for service access and economic opportunity in remote communities

4.5 The CIB is an internationally leading example of mobilizing private capital for infrastructure investment

> *"The CIB is the only infrastructure bank we surveyed that engages relevant stakeholders at all levels of government in infrastructure finance, which is also a best-practice function. It therefore provides a valuable example for other jurisdictions to consider when designing infrastructure bank policy frameworks."*
>
> **Mathias Cormann,**
> Secretary-General OECD [17]

Infrastructure banks are not a new idea. They are a proven solution for addressing challenges in mobilizing private capital to get projects built in the public interest. The widespread establishment of financial institutions like the CIB worldwide shows how they add value. The OECD highlights the CIB as a model institution – particularly with respect to financing net-zero infrastructure to support a sustainable post-pandemic recovery. [18]

The U.S. Department of Energy Loan Programs Office and Australia's Clean Energy Finance Corporation provide two early examples of publicly backed institutions, which were created with focused mandates to specifically address barriers to financing energy transition infrastructure.

The CIB was created with a wider sectoral mandate for financing transformational infrastructure projects. With its evolution over time, the CIB now covers five broad priority sectors with a range of national, regional, and community-scale projects.

The CIB's model is used as template for other countries looking to address their infrastructure deficit. The creation of the UK Infrastructure Bank took direct inspiration from Canada's initiative, with the UK government recognizing the

[17] Canada Infrastructure Bank (2023), "In Conversation with Mathias Cormann, Secretary-General, OECD". Available online: https://cib-bic.ca/en/media/the-frame/winter-2023/

[18] OECD (2021), *OECD Implementation Handbook for Quality Infrastructure Investment: Supporting a Sustainable Recovery from the COVID-19 Crisis*. Available online: https://www.oecd.org/finance/OECD-ImplementationHandbook-for-Quality-Infrastructure-Investment.htm

impact of such a tool in catalyzing economic growth and decarbonizing industry.[19] Similarly, the U.S. Inflation Reduction Act (IRA) is promoting the expansion of 'green banks', with an explicit focus on capitalizing non-profit organizations designed to provide capital and leverage private investment in projects that reduce greenhouse gas emissions. [20]

This is a parallel focus to the CIB's efforts across its Clean Power and Green Infrastructure sectors.

Institution	Establishment	Initial Allocation	Investment objectives	Capital deployed and returned
Nordic Investment Bank	1976	**EUR 31.6 billion in funding (FY 2022)**	Long-term environmental impact and productivity growth	EUR 22.2 billion outstanding (December 2022)
U.S. Department of Energy Loan Programs Office	Established by Energy Policy Act of 2005 Operations commenced: April 2007	**USD 42 billion in available loan authority (FY 2021)**	Bridge to bankability for innovative, high-impact energy technologies	Obligated: USD 32 billion (March 2021) Repayments: USD 12 billion
Australia Clean Energy Finance Corporation	Established by 2012 CEFC Act First investment in 2013	**AUD 10 billion**	Fill market gaps where private sector absent to finance assets that reduce greenhouse gas emissions	Committed: AUD 10.8 billion (June 2022) Capital returned: AUD 3.3 billion
Scottish National Investment Bank	Announced: September 2017 First investment: November 2020	**GBP 2 billion**	Support net-zero Transition by 2045 Expand equality of opportunity Invest in innovation and industries of future	GBP 157 million (December 2021)
UK Infrastructure Bank	Announced: November 2020 Operations commenced: June 2021	**GBP 22 billion**	Help tackle climate change Support re-gional/local econom-ic growth	Committed: GBP 309.5 million (March 2022)

[19] See, for example: Parliamentary debate on Second Reading of UK Infrastructure Bank Bill (24 May 2022. Available online: https://hansard.parliament.uk/lords/2022-05-24/debates/E96AA50E-075B-4F70-8DE6-8071EA20F17F/UKInfrastructureBankBill(HL))

[20] U.S. Environmental Protection Agency (14 February 2023), "EPA Announces Initial Program Design of Greenhouse Gas Reduction Fund." Available online: https://www.epa.gov/newsreleases/epa-announces-initial-program-design-greenhouse-gas-reduction-fund

05.

THE EVOLUTION OF THE CANADA INFRASTRUCTURE BANK

- After its 2017 inception, the CIB required time to establish its organization, administrative process and governance. However, this process took time. This was a source of frustration for some given Canada's pressing infrastructure needs.
- The CIB's initial governance and approval processes related to the review of projects in the public interest were not sufficiently streamlined nor appropriately flexible for the CIB to establish itself as a credible, nimble partner with potential private investors. This meant the CIB lagged on its first investments.
- However, the specific problem that the CIB was conceived to address – mobilizing investment in transformative, revenue-generating infrastructure was not meant to focus exclusively on shovel-ready investment.
- Canada lacked a roster of immediate investment-ready projects for the CIB's financing, and identifying and cultivating a pipeline of such projects required a period of diligent effort by the CIB's investment team.
- The 2020 Growth Plan marked a turning point in the CIB's effectiveness, clarifying the target sectors for the CIB's investments, diversifying the CIB's mix of project sizes, expanding the CIB's options for financing structuring (e.g., project aggregation), and specifying clear metrics for public outcomes.
- Alongside the Growth Plan, the CIB also worked with the Government of Canada to streamline its governance processes and decision-making around investments to enable the CIB to nimbly and rapidly deploy its capital in partnership with private investments.
- The results of this evolution are clear in the pace of investment activity and the impact of the projects under construction.

5.1 Establishing the CIB meant building a new organization

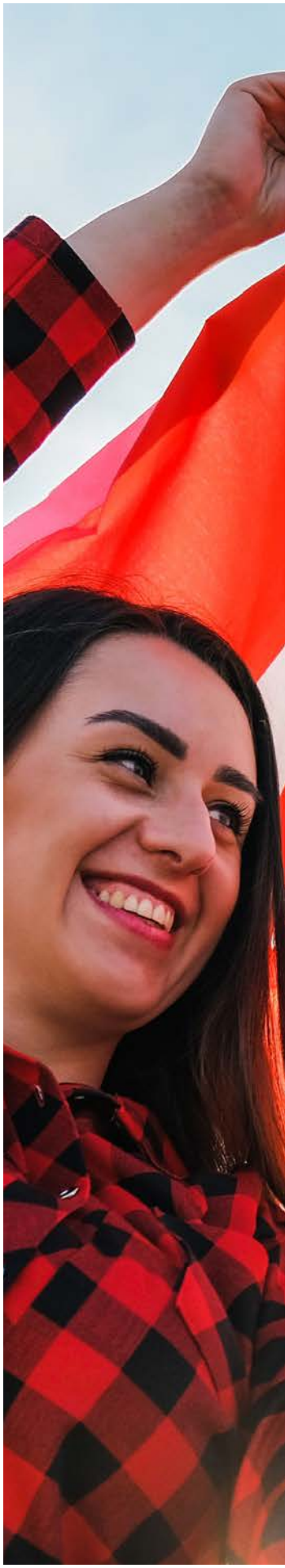
The CIB was established in 2017 with the goal of attracting investment in revenue-generating infrastructure projects in the public interest. Before the CIB could do that however, it needed the basics. After the legislation to create the CIB was drafted and passed, much like other new Crown corporations, the first year was spent appointing a Board of Directors, hiring a CEO, finding an office, recruiting a team of experts, and establishing operations.

5.2 Building the CIB's project pipeline took time

Next, the CIB entered a start-up phase where it was seized with identifying and building a pipeline of Canadian infrastructure projects in the public interest that were stuck and needed unsticking.

The CIB was not designed to finance projects that were "shovel-ready" – those projects already had funding in place and project development underway – they did not need the help of the CIB. The CIB was designed to find infrastructure projects that were not moving forward but might if only they had the sort of innovative financing tools the CIB was mandated with providing.

Contrary to initial expectations, there was not a ready-made repository of projects for the CIB to finance out-of-the-gate. At the same time, potential partners were not yet aware of the CIB and its offerings. The new team needed to conduct market soundings and build relationships with stakeholders in municipal, provincial and territorial governments,



federal government departments as well as Indigenous communities to identify project partners. This activity consumed the CIB's focus during much of the period from 2018 to 2020.

As the CIB developed its pipeline, it began engaging on the unique factors that were preventing these projects from proceeding. Some projects required dedicated advisory support, others required financing for feasibility studies, and some required development of an innovative financing tool.

Where the CIB's financing was able to unlock a project, the CIB's team of experts began working with project proponents to advance the project and structure a CIB investment alongside a private investment. Given the complexity of large infrastructure projects and their complex stakeholder and jurisdictional landscape, this development process could take multiple years from inception through negotiations and structuring and into financing.

The Oneida energy storage project in Ontario reflects such a journey. This joint venture will establish one of the world's largest energy-storage facilities to store surplus zero-emission electricity during off-peak hours and dispatch this power to the grid when demand peaks. It will play an important role in addressing Ontario's need for reliable capacity and other ancillary services, as well as prove the business case for further grid-scale energy storage, supporting the deployment of further renewable generation and displacing Ontario's reliance on gas-fired generation.

A private operator, NRStor, has been developing the project in partnership with the Six Nations of the Grand River since 2018. The CIB provided support to accelerate project development in 2021 and this allowed the project to attract investment from private partners:

Northland Power has now become the project's majority owner, and Aecon Group will also invest in the project and lead its construction.

The project has required significant work to ensure a robust business case, and the CIB has been critically engaged to help take the project from concept to execution. This required extended negotiations to reach inter-related, risk-sharing arrangements for capacity payments from the system operator and around procurement of critical components, maintenance and project delivery. The finalization of the project's scope encountered significant evolution in the Ontario system operator's outlook for power demand and supply, as well as major increases in the price of lithium as a critical cost component. Grant support from Natural Resources Canada and the Government of Canada's investment tax credit for renewable energy assets were also critical to an investable project.

5.3 The CIB aligned its governance to accelerate investment and impact

At start-up, project approvals required multiple, project-specific approvals from the shareholder prior to beginning commercial negotiations, including an early signal-check and then project-specific approval through a Corporate Plan. This complexity meant that the CIB was not a credible commercial counterparty: After learning about a project, the proponent would need to wait while CIB advanced it through the annual corporate planning process. As a result, potential partners were unwilling to engage seriously in negotiations, let alone project development, as the CIB was not viewed as a credible, dependable financing source.

As part of the Growth Plan and the CIB's 2020-21 to 2024-25 Corporate Plan, the CIB's governance relationship was realigned. In this realigned governance, the government identifies a set of priority sectors for investment. The CIB, through its Corporate Plan, outlines the process it follows to make investment decisions. In that process, the CIB makes independent investment decisions on individual projects, with final investment decisions resting with the CIB's Board. This change was critical in the recruitment of Ehren Cory as the CIB's new CEO in November 2020 and Tamara Vrooman as the new Board Chair in January 2021.

5.4 The CIB diversified its projects to accelerate investment and impact

The Growth Plan also refined the mix of projects and their project sponsors. Initially, the CIB was focused on only the largest, publicly sponsored projects in the country. The original vision for the CIB contemplated the CIB would make 25 to 35 $1 billion+ investments with the CIB's initial $35 billion allocation. However, these projects are few and far between, and, where such a project was nearing shovel-ready, funding arrangements were already in place.

The Growth Plan recognized that there were many smaller-scale infrastructure projects that could be equally transformative for communities, regions or sectors – for instance, accelerating the nationwide transition to zero emission buses, retrofitting buildings to reduce greenhouse gas emissions and helping Canada achieve its climate goals or supporting the expansion of agricultural irrigation to support farmers. While these projects were smaller in size, they still have significant benefits for Canadians.

They also have the potential to catalyze new markets – whether that is demonstrating the feasibility of widespread zero-emission bus adoption, creating a market for the retrofitting of buildings, or creating clear demand signals for new energy sources like clean fuels and hydrogen.

Importantly, these projects – involving more straight-forward landscape of stakeholders – can move through the CIB's pipeline rapidly, delivering measurable results sooner. The smaller projects in certain of the CIB's recently added priority sectors can advance from an initial formal engagement to financial close within a period of six months to a year.

This shift also recognized that not all infrastructure projects are led by the public sector and enabled the CIB to work directly with private project sponsors across our sectors, including areas like energy storage and electricity, the energy transition, broadband and building retrofits.

The success of these smaller projects since the Growth Plan is not "instead of" but rather "in addition to" its initial focus on large, transformative projects.

The CIB continues to advise on development of these complex projects and anticipates providing financing once these reach final investment decisions. However, by expanding its focus to a diversity of projects, the Growth Plan positions the CIB to deliver impact for more Canadians with a steady volume of infrastructure projects.

The results of this evolution is clear in the pace, breadth and impact of the projects that the CIB has accelerated.

5.5 The CIB increased transparency and aligned incentives for its investments

In tandem with the growth in the CIB's investments, over the last two years, the CIB has focused on bringing greater rigor to the CIB investment process, introducing key performance indicators that align with public impact, and delivering greater transparency to Canadians.

This included:

- establishing and publishing the CIB Investment Framework, which articulates how investment decisions are made;
- defining, measuring and tracking over time, the public impact outcomes that the CIB's investments deliver (GHG reductions, transit ridership, volume of trade, houses connected to broadband, indigenous communities invested in); and
- making Quarterly Financial Reports, Corporate Plans and Annual Reports widely available to the public.

To promote Canadians' confidence, the CIB strives for the highest levels of compensation transparency among Schedule III Crown corporations. In its annual reporting, the CIB discloses these compensation principles and average executive compensation with the highest levels of transparency.

The CIB has also aligned all elements of its performance measurement and management system to the Investment Framework. This includes our corporate objectives – included in Appendix C of our Corporate Plan – as well as our matching compensation plan which links compensation to achieving the public interest outcomes by investing in infrastructure.

The CIB has built an investment team of experienced professionals who are committed to and compensated based on accelerating infrastructure in the public interest. The CIB's performance scorecard – which is linked to compensation across the organization – is aligned with deploying the CIB's capital most efficiently across the full diversity of project types, sizes and priority sectors to achieve the maximum public benefit for each dollar invested.

06.

THE OPPORTUNITY IN EACH OF OUR PRIORITY SECTORS

- The CIB's investments catalyze private investments across the priority sectors, accelerating infrastructure with public interest for Canadians.
- The CIB's investments in Broadband connect more rural and remote communities to the social benefits and economic opportunities from high-speed internet access.
- The CIB's investments in Public Transit help urban communities grow, reduce greenhouse gas emissions and relieve congestion by shifting commuters from personal vehicles.
- The CIB's investments in Clean Power expedite the build-out of generation, storage and transmission capacity to decarbonize electricity across provinces while supporting continuing reliability and affordability for consumers.
- The CIB's financing for Green Infrastructure helps mobilize an ecosystem of service and lending for energy-saving building retrofits and will facilitate the build-out of networks of clean fuels, hydrogen and carbon capture and storage (CCS).
- The CIB's investments in Trade and Transportation have accelerated project development on transformative port, railway and bridge projects to expand trade volumes in critical trade corridors and improve passenger mobility within regions.

6.1 Broadband

Broadband internet access has become essential infrastructure and an integral part of the daily lives of Canadians. Digital connectivity directly impacts quality of life for both urban and rural Canadians, enabling economic development, facilitating social participation, and providing access to critical information and public services. The federal government has set a goal of connecting all Canadians to minimum 50 Mbps download and 10 Mbps upload ("50/10") by 2030.

Like many infrastructure projects, broadband expansion has high upfront construction costs and relatively low operating expenses. Therefore, capital cost to connect new customers is the primary factor in service expansion. Rural networks are significantly more expensive for ISPs to construct than urban networks due to lower population density and extended distances. Canada's rural communities are sparsely distributed, resulting in nearly double the required capital expenditure per wireless subscriber compared to the average of the G7 countries. [21]

The CIB's investments in the broadband sector support the Government of Canada's "High Speed Access for All" program. The CIB's investments focused on achieving digital equality by connecting underserved households to a minimum speed of 50/10 Mbps and delivering this speed in a cost-effective manner.

ISED has established a process to ensure that the most efficient projects deliver on the objective. The CIB works in collaboration with ISED to deploy capital for large-scale broadband projects. Project sponsors use the CIB's financing in their financial analysis when assessing grant requirements bid into UBF and other grant competitive programs. This reflects a reduction in subsidy required as a result of the CIB's financing and lowers the overall cost to Canadians.

[21] PWC. 2021. *Understanding the cost and quality of networks across the G20*. Available online: https://www.pwc.com/ca/en/communications/assets/understanding-the-cost-and-quality-of-networks-across-the-g20-en.pdf

The CIB provides senior and subordinated long-term debt at a low cost of capital, with flexible terms to support the financial feasibility and attractiveness of these projects to private investors and ISPs. This lowers the project's cost of capital through the inclusion of CIB financing and allows private sector financing to flow into the project. This is a net increase in private capital deployed as these projects were otherwise uneconomic.

The successful collaboration between the CIB, ISED and provinces in coordinating programs has been essential to the rapid, cost-effective rollout. ISED has notably fast-tracked high-impact projects under its "Rapid Response Stream" for the Universal Broadband Fund (UBF). Additional investments by the CIB in broadband will roll out alongside UBF grants.

6.2 Public Transit

Modern and efficient public transit is vital to the social connectivity, economic competitiveness, and long-term sustainability of Canadian cities. Public transit increases productivity by reducing lengthy commute times and emissions from private vehicles. The long-term trend of concentrated population growth in Canada's urban areas – particularly several large metropolitan areas – underscore the need for enabling rapid public transit to allow fast and clean commuting by Canadians to connect with jobs and each other.

Commuting from congestion directly costs major Canadian cities like Toronto, Vancouver and Montreal billions annually. [22] Additionally, research shows that congestion indirectly results in reduced economic activity, costing many more billions annually in foregone economic value.[23] This burden can be alleviated significantly by shifting the preferred mode of transport away from personal vehicles to clean, efficient public transit.

Public transit projects are complex and expensive. Subway and light rail projects often require alignment across multiple municipalities and

[22] Canada's EcoFiscal Commission (2015), *We Can't Get There From Here: Why Pricing Traffic Congestion is Critical to Beating It*. Available online: https://ecofiscal.ca/reports/traffic/

[23] Benjamin Dachis (2013), *Cars, Congestion and Costs: A New Approach to Evaluating Government Infrastructure Investment*. Available online: https://www.cdhowe.org/public-policy-research/cars-congestion-and-costs-new-approach-evaluating-government-infrastructure-investment

levels of government. Projects touch many parts of communities and interface with surrounding transportation networks, requiring extensive consultation with local stakeholders and creating technical delivery challenges.

These projects face significant risks in delivery – particularly in the coordination of environmental impacts, utilities, permits, property acquisition, and managing construction impacts on the cities they transit. Transit projects are complex technical systems and involve significant risks for managing how various components come together. Finally, accurately predicting transit usage – particularly immediately following completion of a project – involves significant uncertainty. However, long-term development patterns and daily reliance for commuting in any major Canadian city show how public transit shapes urban life for decades.

New public transit projects rely primarily on upfront grants from federal, provincial/territorial, and municipal governments. Since transit developers will always prefer grants to repayable loans, Canada's mindset for funding new transit development through one-off government grants limits the role of private, institutional and CIB financing in these projects. As a result, governments mostly use their balance sheets to fund outlays, rather than financing linked to project revenues.

Tools for land value capture also provide a pathway to fund transit infrastructure and mobilize private investment. Since public transit can boost economic activity and provide uplift to land values surrounding new stations, charges based on the appreciation of property can be used as a revenue source.

The CIB's investment in this sector is focused on municipal level transit modes such as subways, commuter rail, light rail transit and bus rapid transit – including new lines, extensions and infill stations. The CIB's financing aims to reduce the risk of these projects, by taking on the revenue or ridership risk, enabling project development in this sector.

Zero-emission transit fleet

Eliminating greenhouse gas emissions from buses while expanding the fleet to encourage public transit use represents a critical part of Canada's 2030 Emissions Reduction Plan. However, electrifying bus fleets requires significant upfront costs, including both the buses, recharging infrastructure and training of service personnel. However, the conversion to a zero-emission bus fleet can reduce operating costs for municipalities' public transit system in the long-term.

In concert with CIB's commitment to invest at least $1.5 billion in zero-emission buses, the Government of Canada has committed $2.75 billion over five years through the Infrastructure Canada's Zero Emission Transit Fund (ZETF) to cover planning and capital costs for electrifying buses, school transportation and public transit.

The CIB's financing for zero-emission buses addresses the financing gap by assuming certain risks associated with cost savings. The CIB's financing is coordinated with the Infrastructure Canada's ZETF to provide a harmonized platform for partnerships with municipalities and transit agencies.

Because of transit agencies' lack of experience realizing cost savings from conversion to a zero-emission bus fleet, private lenders are unwilling to extend financing linked to these unproven cashflows. However, the CIB's financing for these zero-emission bus fleets aims to demonstrate that cost savings for transit agencies from this adoption represent predictable cashflows on which financing can be extended. The CIB's demonstration of lending on this basis can establish precedent for future private entry.

6.3 Clean Power

The overhaul to decarbonize Canada's electricity system underpins an economy-wide energy transition to net-zero by 2050. This transition requires rapid and costly investments in new zero-emission generation capacity and complementary infrastructure to ensure reliable electricity supply to meet increasing demand. Transitioning to clean power will require transmission build-out to interconnect provincial systems. As well, grids must integrate both zero-emission generation capacity and electricity storage to meet peak loads, enable load shifting to match periods of high supply and provide ancillary services required to maintain system reliability. The federal government has further announced an intent to mandate net-zero electricity by 2035.[24]

The decarbonization of power generation over the next decade would coincide with significant increases in electricity demand, which the Canadian Energy Regulator projects to grow by 17% Canada-wide between 2020 and 2030[25], and credible third-party studies suggest a need to meet 3-fold greater electricity demand by 2050.[26] A broad shift to the electrification of industrial processes, the switch to electric vehicles and conversion of heating systems will all drive electricity demand growth.

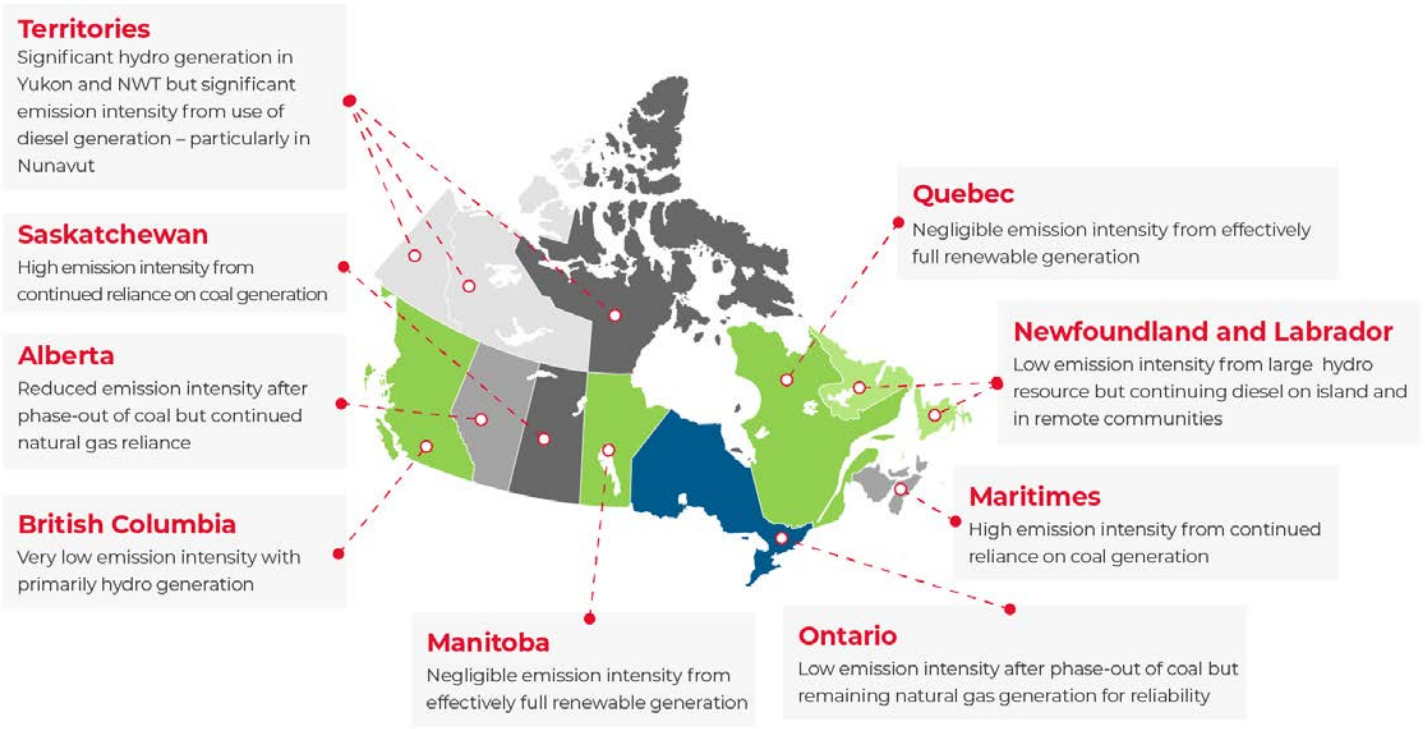
Alongside the challenge associated with provincial and territorial grids, Canada seeks to replace the high-cost and environmentally harmful diesel generation on which over 200 northern, remote, and Indigenous communities and mining operations presently rely on for heat and power.

Provinces differ widely today in the mix of resources on which they rely on for generation and the carbon intensity of their grid.

[24] Environment and Climate Change Canada. *Clean Electricity Regulations Frame Document*. (2022) Available online: https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/clean-electricity-regulation.html

[25] Canadian Energy Regulator (2021), *Canada's Energy Future 2021: Energy Supply and Demand Projections to 2050*. Available online: https://apps.cer-rec.gc.ca/ftrppndc/dflt.aspx?GoCTemplateCulture=en-CA

[26] Canadian Climate Institute (2022), *Bigger, Cleaner, Smarter: Pathways Report*. Available online: https://climateinstitute.ca/reports/big-switch/



Sources: Environment and Climate Change Canada (2022 Official Greenhouse Gas Inventory), Canadian Energy Regulator (Canada's Energy Future 2021)

Capital to finance the infrastructure required for decarbonizing Canada's electricity systems must be mobilized rapidly. Without significant contributions from the private sector, the investment need will exceed the financing capacity of provincial and territorial governments. There are four challenges in mobilizing private and institutional investment.

1. Increased costs of transition: The transition to clean power will increase overall system costs. Private capital is typically more expensive than public investment, and this increased cost is challenging for regulators and provincial and territorial stakeholders to accept given consumer awareness of and aversion to higher electricity prices.

2. Certainty of carbon pricing: Regulators and investors lack consensus regarding pathways to decarbonizing electricity systems and have divergent expectations about the value of future zero-emission generation. As a result, regulators and investors face challenges for confidently evaluating the costs of clean generation, transmission and storage relative to current emitting alternatives. Without clear regulations, regulators have difficulty justifying clean alternatives absent significant subsidies, and private investors cannot justify investments based on merchant risk in markets that lack substantial merchant generation and transmission markets.

3. Most provinces and all territories have vertically integrated Crown utilities: Market structure effectively limits most private investment in electricity to Alberta and Ontario, with a small role for independent power producers in other provinces and territories. For capital-intensive transmission projects and large-scale generation such as hydro, the CIB must work with incumbent Crown utilities to develop structures to crowd in private capital beyond typical project delivery structures.

4. Incentives for interprovincial and interterritorial transmission: Some provinces and territories have abundant clean power, whereas others rely on fossil-fueled generation. Provinces with abundant clean power have limited incentive to sell to neighbours versus other export markets. As well, potential importing provinces are reluctant to commit to long-term supply of clean electricity that may lock-in higher costs relative to continued in-province fossil-fueled generation.

The CIB's investments in clean power contribute to the Government of Canada's climate action and net-zero economy goals, reflecting the role CIB can play in both public and private sector-led projects. The CIB's clean power investments are focused on zero-emission generation, transmission and storage, also including financing the upscaling of district energy projects and small modular nuclear reactor (SMR) deployments.

The CIB's financing has been critical in attracting private capital to new clean power projects that faced uncertain regulatory or market conditions. This results in new assets that may not otherwise have been built or would have otherwise been built with a significant delay. By reducing these projects' cost of capital, the CIB helps provinces manage the costs for ratepayers to within an acceptable envelope.

The CIB's advisory support plays a crucial role in advancing the large scale build out of clean power infrastructure across the country. The CIB has played a formal role leading the financing workstream of the Atlantic Loop working table, supporting the development of transaction structures that mitigated rate impacts while crowding in private investment. The CIB continues to bring its expertise to bear on the Kivalliq Hydro-Fibre Link project and Taltson Hydroelectricity expansion project in Northwest Territories, supporting communities that are advancing critical clean power projects in the North.

District energy

District energy projects allow for the decarbonization of buildings while providing energy cost savings through more efficient heating and cooling.

However, these projects have significant upfront costs to construct the infrastructure with returns as it used for decades to come. The key challenge is in sizing the system for future needs: once the infrastructure is constructed, it is costly to increase capacity. However, developers face meaningful risk associated with the timing of future development and how and when that revenue can be used to finance construction. The result is that, when financed exclusively with private investment, a district energy project is sized only to existing contracted revenues, limiting the ability of that system to accommodate future development.

The aim of the CIB's financing for district energy is to enable the developer to increase the initial size of a project to serve a wider set of customers that are not yet able or willing to commit to connecting – perhaps because the building has not yet built. Complementing these private investments, the CIB's investments share in the risk around future volumes and cost savings, helping these projects increase the scale of the upfront construction. This provides economies of scale in construction, creates capacity to serve future customers and facilitates cost-effective connection of future development in the district.

6.4 Green Infrastructure

Retrofitting buildings

Emissions from buildings account for 13% of Canada's GHG emissions (18% including electricity-related emissions).[27] In addition, many industrial facilities are significant sources of emissions.

Canada's building stock requires a comprehensive modernization to ensure sustained quality of service, energy efficiency, and climate resilience. Retrofitting existing commercial, industrial public, institutional and multi-unit residential buildings will reduce the direct emissions, reduce utility costs and indirect emissions, and extend the life of the building, avoiding emissions from new construction.

Deep retrofits yield significant energy and cost savings – at least reducing 30% and often 50%+ of GHG emissions, including often most onsite emissions – and improve a building's resiliency. As well, building retrofits can include installation of electric vehicle chargers, encouraging private EV adoption and achieving further emission reductions.

However, retrofitting buildings faces a substantial investment gap. Efficiency Canada estimates that achieving the targets under Green Buildings Strategy will require $20-$32 billion in investment annually. [28]

At the current pace of retrofits of ~1% per year, it would take well beyond 2050 to achieve net-zero goals.

Building owners often lack expertise and sufficient motivation to undertake deep retrofit projects due to the long payback periods and uncertain return on investment. Projections for energy and emissions reductions from deep retrofits involve significant uncertainty, impacted by future variability in utility rates and maintenance costs.

This uncertainty inhibits the availability of lending to finance retrofits. Building owners themselves typically have poor line-of-sight on potential cost savings from building operations and corresponding uplift for tenant demand and real estate valuation for modernized buildings. Without well-understood and predictable cost savings from retrofitting buildings, commercial lenders are reluctant to lend against such prospective cashflows and lack established processes for extending this credit.

[27] Natural Resources Canada (2021), *The Canada Green Buildings Strategy*.
Available online: https://www.rncanengagenrcan.ca/en/collections/canada-green
[28] Efficiency Canada (2021), *Canada's Climate Retrofit Mission – Why the climate emergency demands an innovation-oriented policy building retrofits*.
Available online: https://www.efficiencycanada.org/retrofit-mission/ n-buildings-strategy

A significant share – roughly 40% – of Canada's non-residential building stock is owned by governments or public-sector entities, such as municipalities, universities, schools, hospitals and Crown corporations. Publicly owned buildings have the potential to deliver energy retrofits while involving private and institutional investors that bear performance risk. Examples are the CIB's partnership with Noventa for retrofitting the Toronto Western Hospital and with the University of Toronto. The primary challenge is accelerating projects from initial assessments through procurement and into delivery. There is great appetite for these projects from private sector partners once these projects proceed to procurement.

Most of Canada's non-residential building stock is privately owned. Interest among private-sector owners of commercial real estate is emerging as these owners explore opportunities to modernize buildings. This interest is driven by a growing recognition of cost savings from long-term energy efficiency as well as by the shifting preferences and sustainability objectives of commercial tenants.

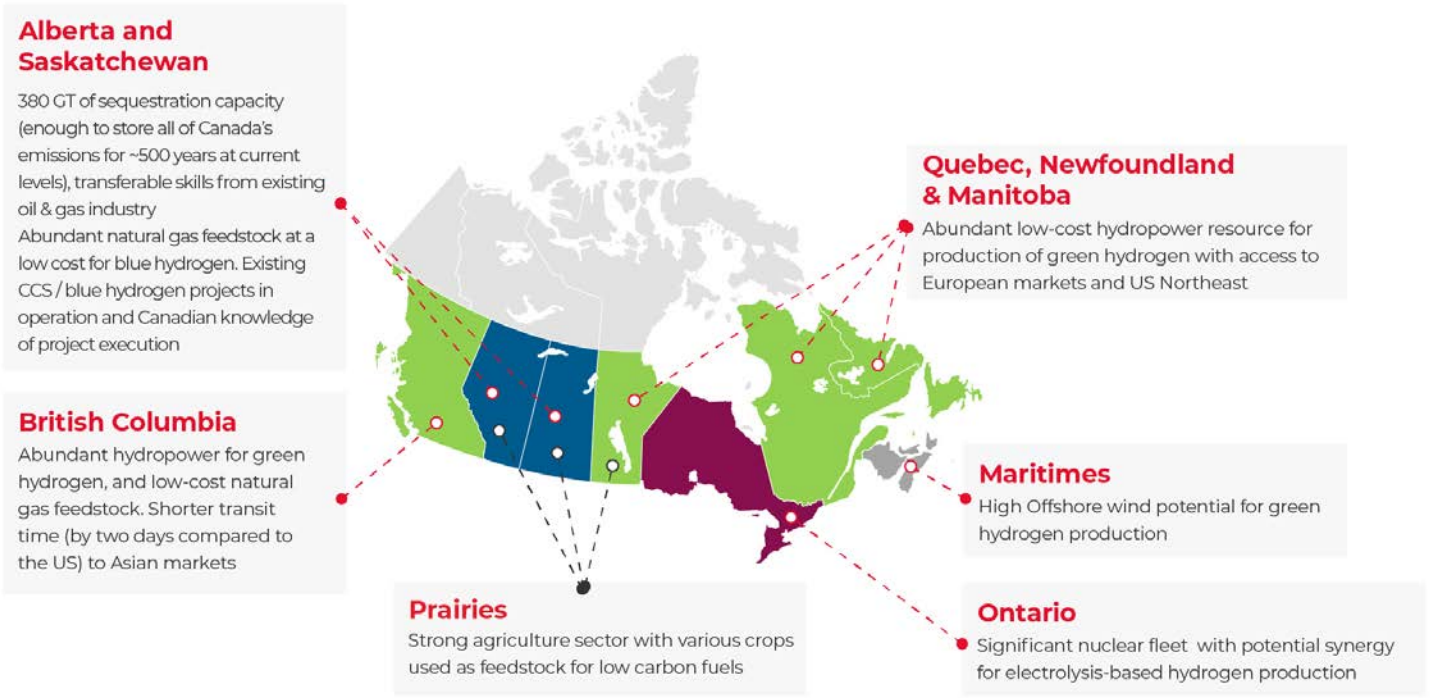
The CIB's investments in retrofits either catalyze or accelerate projects that reduce greenhouse gas emissions and would not otherwise occur or would be delivered at a lesser scale. The CIB's financing typically assumes risk around timing and extent of cost savings. By working with project aggregators, the CIB's financing pools these risks and demonstrates how a portfolio of cost-saving retrofits can yield relatively predictable cost savings, establishing a model for private lending to finance future retrofit waves.

By structuring its financing with an interest rate that is linked to extent of greenhouse gas reductions, the CIB's investment also motivate retrofitters to go deeper in the scope of their projects despite the correspondingly longer expected payback periods.

The strategic deployment of the CIB's financing for retrofits also helps catalyze an ecosystem of experienced service providers by partnering with private aggregators who undertake many retrofit projects, thereby realizing economies of scale and developing systems, training professionals and honing processes. The CIB's involvement with retrofits seeks to establish the proof-of-concept and transactional precedents that will facilitate commercial lenders confidently extending credit for many future projects.

Energy transition: CCS, hydrogen andclean fuels

Accelerating decarbonization through carbon capture and storage (CCS), hydrogen, and clean fuels are integral to reducing greenhouse gas emissions from hard-to-decarbonize sectors such as petroleum extraction and refining, chemical manufacturing, steel, cement and freight haulage. Canada's Emissions Reduction Plan contemplates these sectors will reduce emissions by between 100 to 150 million tonnes from 2019 levels by 2030. Hydrogen



provides a key pathway to use as a fuel for vehicles and input for heavy industry – for example to produce low-carbon steel, ammonia fertilizer and hydrotreatment to produce renewable diesel.

Canada has natural advantages for producing clean fuels and leveraging CCUS to decarbonize presently emission-intensive industries. Canada also has a robust set of policy initiatives designed to spur investment in these sectors. These include the expanded role for the CIB announced in Budget 2022, investment tax credits, proposed carbon contracts for difference through the Canada Growth Fund, and the National Hydrogen Strategy.

Many energy transition projects rely on revenue from monetizing their reductions in greenhouse gases – either through credits/offsets created under a provincial or federal regulatory framework or through a "green premium" realized on sale of their output.

The value of cashflows for these projects are tightly linked to regulatory design at federal and provincial level, and in export markets – including the stringency of emission reduction obligations and the supply/demand balance in markets for carbon credits/offsets. For example, the market for credits under British Columbia's Low Carbon Fuel Standard (LCFS) has witnessed wide price fluctuations. Even in the most developed markets for carbon – such as in Alberta, which first created a carbon pricing regime for industrial emissions in 2007 – project proponents perceive significant risks around the value of carbon offsets. These challenges are greatest for CCUS projects, for which the business case entirely relies on the value of sequestered emissions over the asset's lifespan.

Integrating hydrogen into regular use faces additional hurdles. While certain amounts of hydrogen can be blended into fuels and the natural gas network, more end-use requires

adoption of new fuel cell vehicles or construction of hydrogen-fueled generation. Distribution requires the build-out of specialized infrastructure for compression, transportation and refueling. Transporting hydrogen longer distances is presently highly cost prohibitive. An investor in a single hydrogen project faces a "chicken and egg" problem around the extent of the network to support end-use and, in turn, uncertainty for future demand for hydrogen.

Following the announcement in Budget 2022, the CIB assumed a broadened role to accelerate Canada's transition to a low-carbon economy by investing in clean fuel production, hydrogen production and distribution networks and CCS. The CIB's financing for the energy transition helps project proponents manage risks associated with the future value of greenhouse gas emission reductions and demand for hydrogen and clean fuels. The CIB is actively engaged with project proponents around potential investments across the full value-chain for clean fuels and hydrogen, including production and integration with end-uses, as well as complementary CCS capacity as applicable.

The CIB works closely with federal departments – particularly Natural Resources Canada and Innovation Science and Economic Development – as well as with provincial governments and other Crown Corporations to maintain visibility on the investment pipeline, share information and coordinate support for projects.

Zero-emission vehicle charging and refueling

Decarbonizing vehicle transportation is critical to achieving Canada's net-zero goals. Encouraging the adoption of zero-emission vehicles (ZEVs) requires a network of charging and refueling stations. The federal government announced targets for ZEVs to comprise all new light duty vehicle sales by 2035 and all medium and heavy-duty vehicles by 2040. Transport Canada projects 4.6 million ZEVs on the road by 2030 and 12.4 million by 2035.[29]

A study for Natural Resources Canada projects that Canada must grow its charging network over 10-fold from today to more than 200,000 charging ports by 2030 and estimates that charging infrastructure to support 30 million EVs by 2050 will require a total investment of $20 billion over the next three decades.[30]

The federal government is supporting ZEV adoption through $680 million for ZEV Charging through NRCan's Zero Emission Vehicle Infrastructure Program (ZEVIP) and the CIB's financing

[29] Transport Canada (2022), *Canada's Zero-Emission Vehicle (ZEV) sales targets*. Available online: https://tc.canada.ca/en/road-transportation/innovative-technologies/zero-emission-vehicles/canada-s-zero-emission-vehicle-zev-sales-targets

[30] Dunsky Energy + Climate (2022), *Updated Projections of Canada's Public Charging Infrastructure* Needs. Available online: https://natural-resources.canada.ca/energy-efficiency/transportation-alternative-fuels/resource-library/updated-projections-canadas-public-charging-infrastructure-needs/24504

support announced in Budget 2022, in addition to the federal Incentives for Zero-Emissions Vehicles program, aimed at incentivizing ZEV purchases.

Accelerating driver-side EV adoption while ramping-up a reliable nationwide network of recharging stations to fulfill demand represents a classic "chicken and egg" problem. The pace of EV adoption in Canada has lagged peer economies in Europe and Asia due in part to buyer concerns over availability of public charging infrastructure. At the same time, uncertainties around charger utilization depresses willingness to invest in ZEV charging infrastructure.

The CIB's financing in charging and refueling infrastructure addresses two main barriers: risks around growth in recharging/refueling demand from ZEVs, and the timing of a widespread network. The CIB launched the Charging and Hydrogen Refueling Infrastructure (CHRI) initiative after Budget 2022. The CIB's financing under CHRI will be structured to link principal and interest payments to the utilization level, offsetting uncertainties faced by the project developer. The CIB anticipates making its first investment commitments under CHRI in Spring 2023.

The CIB actively coordinates with Natural Resources Canada to provide an integrated offering of funding incentives and financing solutions for charging operators. The CIB has received strong interest in its financing program from the market, and, going forward, the CIB will actively monitor and annually review terms to hone financing.

Water and wastewater

Water and wastewater infrastructure are critical for the health, safety, and wellbeing of communities across Canada. Such infrastructure ensures safe drinking water, maintains healthy environments, and mitigates risks to communities from floods and climate-related hazards.

In general, Canadians do not pay for the full costs for providing water through utility rates. Therefore, investments in water and wastewater infrastructure depend on funding from governments' general revenues and transfers. As a result, there is a significant maintenance backlog.

The investment in maintenance required by public utilities has not kept up with the deterioration of existing infrastructure. The remaining useful life of water and wastewater assets in Canada declined between 2017 and 2021, indicative of challenges faced by public utilities in funding and maintaining aging infrastructure. In its 2019 "Infrastructure Report Card", the Federation of Canadian Municipalities estimates that approximately 10% of Canada's water and wastewater infrastructure was in poor or very poor condition, and an additional

17% was in only fair condition. [31]

This infrastructure challenge is further pronounced in First Nations communities. As of February 2023, 32 long term drinking water advisories remain in effect across 28 First Nations communities. [32]

Private sector participation models have been leveraged in other developed jurisdictions, such England (rate-regulated private utilities), France (concessions and leases) and the United States (P3s). However, Canadian municipalities generally lack appetite for private investment in water infrastructure, limiting opportunity for private investment in addressing the infrastructure need.

In November of 2022, the CIB made its first investment in water and wastewater, deploying $6.4 million towards the Port Stalashen Wastewater Treatment project. This will enable economic growth in the community and improve public health, displacing the end-of-life septic systems on which community members presently rely. The CIB's involvement lowered the project's cost of capital and made the economics of advancing the project feasible.

[31] Canadian Federation of Municipalities (2019), *Canadian Infrastructure Report Card 2019*. Available online: http://canadianinfrastructure.ca/en/index.html

[32] Indigenous Services Canada (2023), *Long-term drinking water advisories on public systems on reserves*. Available online: https://www.sac-isc.gc.ca/eng/1506514143353/1533317130660

6.5 Trade & Transportation

Trade corridors

Canada's economic prosperity is directly linked to its ability to ensure commodities, goods and essential supplies are delivered to all parts of the country and directly enable the standard of living for Canadians. Trade corridor projects increase the flow of goods and reduce supply chain congestion. Canada's recent Indo-Pacific Strategy also highlighted the importance of infrastructure investment – particularly for upgrading road and rail corridors and capacity at the ports of Vancouver and Prince Rupert – for Canada to remain a resilient link in Pacific supply chains.[33]

Projects to improve Canada's trade corridor face unique challenges mobilizing investment. These involve complex interdependent, multimodal systems of infrastructure, regulated by various levels of government. Port investments are large capital-intensive projects that require partnership between a public Canada Port Authority (CPA) and a private terminal operator.

Goods flowing through ports are transported to inland destinations via interconnected long-haul railways and roads networks. Over the past two decades, the total track operated by railways in Canada has declined by almost 10%, falling from 74,412 kilometers in 2000 to 67,114 in 2020.[34] Investments by Class I railways will be critical to addressing both present bottlenecks and future expansion for Canada's trade corridors.

The CIB's investment in this sector aims to mobilize investment for expanding capacity and alleviating bottlenecks. This often involves financing structures that assume risks around volumes for new infrastructure.

The CIB works closely with Transport Canada and Infrastructure Canada. The CIB also collaborates with provincial transport ministries to identify potential projects. The CIB measures the impact in this sector by the increased tonnage of annual freight resulting from the projects in which the CIB invests.

[33] Global Affairs Canada (2022), *Canada's Indo-Pacific Strategy*.
Available online: https://www.international.gc.ca/transparency-transparence/indo-pacific-indo-pacifique/index.aspx
[34] Statistics Canada (2022), Railway industry length of track operated at the end of the year (Table 23-10-0051-01).
Available online: https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=2310005101

Passenger rail

Passenger railway service supports mobility and economic development across regions. It also helps to shift intercity passenger transportation away from emission-intensive modes (i.e., personal vehicles and air travel) and to relieve congestion along highways. High-speed intercity rail can substitute for short-distance flights between urban centers.

Developing infrastructure for expanded passenger rail service – such as the long proposed high frequency rail for the Toronto-Quebec City corridor – involves significant technical complexity and requires alignment around the project design across the federal and provincial governments, as well as various municipalities and Indigenous stakeholders. Advancing the project beyond the pre-feasibility stage requires significant consultations and extensive upfront investment in site investigation and engineering work, as well as navigation of lengthy permitting processes. Procurement and construction for such projects also involve substantial risk for a proponent, and private capital lacks appetite for such variable development horizons and uncertainty around a successful outcome.

The CIB seeks to invest in projects that increase passenger rail ridership and aims to catalyze the development of projects that would otherwise not occur. Since the private sector would require a significant premium to compensate for demand risk, the CIB's financing facilitates this risk transfer. To date, the CIB has supported three passenger rail projects: project acceleration for HFR through the Joint Project Office and the current governance structure, the Calgary-Banff Rail project, and an investment in the modernization of the Tshiuetin Railway.

Bridges, tunnels and highways

Highways, bridges and tunnels serve a crucial role supporting the effective flow of goods within Canada and across international borders. Aging highway, bridge, and tunnel infrastructure and growing congestion are major economic concerns.

Private investors have shown interest in delivering tolled roads and bridges in Canada, as illustrated by existing assets such as the 407 Express Toll Route in Ontario and Autoroute 30 in Quebec. Canadian institutional investors have also made significant investments in tolling road transportation outside Canada in recent years. Private capital is generally willing to invest in such projects, provided that a public sponsor would approve the project and maintain a predictable regulatory regime for setting tolls.

To date, the CIB has invested in project acceleration or signed a Memorandum of Understanding for four projects. In general, the CIB's involvement will expedite project development, identify financing structuring options and assess the economic benefits for the given project.

Agricultural infrastructure

Agricultural infrastructure projects help increase agriculture productivity, grow the economy and create jobs. Projects in this sector have diverse sources of revenue from users which can be used to support CIB and private financing. CIB investments help address uncertain demand and offtake which limit the availability of senior lending.

Consistent with the goal of economic growth through agriculture, CIB considers projects that grow our economy through agriculture including in transportation infrastructure (e.g., reducing trade bottlenecks), water (e.g., irrigation), food storage and connectivity (e.g., broadband to support precision farming).

The CIB collaborates closely with federal departments in this space, including Agriculture and Agrifood Canada, Western Economic Diversification Canada and Prairies Economic Diversification Canada.

The CIB's first investment in this sector was the $466 million investment in irrigation infrastructure in Alberta alongside irrigation districts and the Government of Alberta. The two-phase project involves construction of modern irrigation infrastructure and significantly expands irrigable land opportunities within ten irrigation districts. Approximately 200,000 acres will be newly irrigated through the project's two phases, increasing crop production, improving water use efficiency, enhancing water security and providing flood protection.

07.

THE CIB'S NEXT FIVE YEARS

7.1 The CIB is building a more sustainable model of infrastructure financing

Canada's next five years are critical for accelerating the pace of infrastructure construction to meet the challenges of decarbonizing while connecting all Canadians to the world. To decarbonize our economy at the scale contemplated by Canada's 2030 Emissions Reduction Plan and 2050 Net Zero Goal, reinforce our trading system and connect all Canadians to high-speed internet, we must urgently ramp-up infrastructure investment. This investment is beyond the capacity of government alone and requires partnerships between public and private. The role of the CIB as a bridge is critical.

The CIB is making investments – not grants. Each investment the CIB has made is with the minimum expectation of returning our capital over the life of the investment. As well, the CIB expects each investment to bring along additional sources of private and institutional investment into the project over its life. These combine to make CIB investments a more sustainable approach to infrastructure financing than grants. Some of the CIB's initial investments have already begun to earn interest and be repaid. The CIB uses these repayments to reduce its draw on the $35 billion statutory appropriation in the CIB Act. Over time, interest earned and principal repayments will fund an increasing portion of the CIB's operating expenses and investments.

The CIB has built a team of investment professionals focused on delivering impactful infrastructure projects, established unique transaction capabilities to deploy innovative financial tools and implemented a framework to demonstrate results to Canadians.

The CIB is building a portfolio of high impact infrastructure projects across a range of project sizes and timelines. This includes: our standardized programs that we can rapidly deliver in communities of all sizes across the country (e.g., zero-emission buses, building retrofits, broadband); a diverse set of projects in the $300 million to $1 billion range in every region of the country; and working to accelerate the largest project and highest priority projects. These large, nation-shaping projects are decades in the making and have long and uncertain development timelines.

Going forward, the CIB anticipates committing $3-5 billion annually in new infrastructure project financing to projects with a total capital value of $10-15 billion. The CIB expects significant year to year variability in our financing based on the specific timing of the largest projects. For example, the timing of potential CIB investments in projects like the Atlantic Loop and HFR could cause the CIB to exceed $5 billion in new financial closes in a given year.

These commitments create debt or equity facilities that project proponents draw on during construction: for example, the CIB has established a credit facility with the City of Brampton to transition its bus fleet to zero-emission buses that Brampton will draw on until the end of 2027 as it transitions its bus fleet to zero-emission. As a result, actual funding draws will lag total commitments by 4-5 years, reflecting the construction periods typical for large infrastructure assets and will increasingly be funded from principal repayments and interest from our portfolio of investments.

As an investor, the CIB is exposed to uncertainty in its future returns. The Government of Canada has provisioned up to $15 billion in net fiscal expense to account for potential investment losses, operating expenses and accounting provisions. The CIB has established rigorous risk management processes to ensure we remain within this envelope.

By 2027-2028, we anticipate that interest revenue will be sufficient to offset operating expenses and any investment losses. This $15B will therefore represent our “risk appetite” for the risks we share in to accelerate projects – for example, the risks of cost savings on zero-emission buses or retrofits, demand for district energy services or transit usage.

7.2 How our investment priorities evolve

The CIB is focused on the priority sectors and outcomes for our projects established by our shareholder – the Government of Canada.

In accordance with its evolving priorities, the federal government has expanded the scope for the CIB’s engagements with infrastructure projects, broadening our priority sectors. Recognizing the CIB’s potential to mobilize private capital and accelerate investment, the Government of Canada expanded the CIB’s focus from public transit, green infrastructure, trade and transportation to also include investments in electricity transmission, generation and

storage, district energy projects, carbon capture and storage (CCS), hydrogen and clean fuels.

The CIB has established transparent metrics to track success in these sectors. This widened scope shows an evolving understanding of Canada's infrastructure needs and the barriers facing major projects for which the CIB has innovated new financing structures to address. What counts as "infrastructure" will continue to evolve as society faces new challenges and technology opens new opportunities to grow our economy and connect with each other.

The CIB is prepared for the infrastructure priorities of the Government to continue to evolve. Our investment capabilities can be adapted to new infrastructure challenges. The CIB has been a first-mover into many new areas of infrastructure financing – for example:

- Financing the acquisition of zero-emission buses for transit and school bus operators;
- Catalyzing a market for financing energy efficiency retrofits;
- Financing early clean fuels and hydrogen projects in Canada; or
- Financing the expansion of zero-emission vehicle charging across the country.

The CIB anticipates that over time, these investments will increasingly be able to be financed by private and institutional capital (i.e., as risks are better understood, transaction costs fall, and markets develop) and the need for CIB financing will diminish.

At the same time, we are seeing discussions evolve on how we could finance emerging areas of infrastructure need. A potential role for the CIB will be catalyzing investment in infrastructure that improves resilience and facilitates adaptation to climate change. For example, expansion of reservoirs and stormwater improvements can mitigate flood risks, improving property values and reducing insurance claims. Electricity distribution and transmission networks which are hardened against extreme weather events will be increasingly important as more household heating is electrified. Many public and private stakeholders are actively exploring the financing models that will be required to deliver these projects.

Given Canada's infrastructure need and the necessity to leverage public and private investment to meet the need, infrastructure will always be a public-private partnership. The CIB sits at this intersection as it is:

- Able to provide advice to governments on the ability and role that private investment can play to meet their infrastructure priorities; and

- Engaged with the market to identify opportunities where private investment could flow in and deliver important public benefits with the targeted deployment of CIB capital

Unlocking the full potential of the CIB requires a continued, nimble process to match these inputs to ensure that (1) CIB's investments are aligned to the policy priorities set by the Government of Canada and (2) the Government of Canada has clear visibility on the opportunities the CIB sees to deliver new types of infrastructure projects in the public interest in partnership with private investment beyond its existing areas of investment. This will ensure the CIB delivers on its potential for Canadians.

7.3 Conclusion

To make Canada a more prosperous, connected and sustainable country, Canada must urgently accelerate infrastructure investment. Canada's infrastructure needs require mobilizing private capital and ingenuity for revenue-generating projects in the public interest alongside government funding. However, getting infrastructure built faces persistent challenges, and project development often languishes amid uncertainties facing potential investors, divergent stakeholder priorities and the complexities of arranging financing – particularly for first-of-a-kind and large, transformative projects.

The CIB was conceived to address these gaps in getting infrastructure built. The CIB provides a nimble and targeted toolkit to address the barriers facing projects in the public interest. The CIB's mandate recognizes that the private sector is an integral partner in financing and cost-effectively delivering essential infrastructure to decarbonize our economy and connect Canadians to economic opportunities and each other.

The CIB believes that its current performance is in accordance with its governing legislation. The CIB views its governing legislation as balancing accountable governance with appropriate flexibility for crowding in private and institutional capital to finance infrastructure in the public interest.

Since its inception, the CIB has evolved its governance processes and coordination with the federal government. Through its investment in a diversity of project types and sizes across all regions of our country, the CIB has demonstrated its unique capabilities to accelerate

the build-out of revenue-generating infrastructure and advance the federal government's priorities for enhancing Canadians' lives, economic opportunities and environmental quality.

The CIB will continue to evolve, targeting new infrastructure based on the Government of Canada's priorities and technological advances that open possibilities for a more prosperous, connected and sustainable country. Budget 2023 underscored the CIB's importance to Canada's critical transition to net-zero by positioning the CIB as the Government of Canada's primary financing tool for supporting clean electricity generation, transmission, and storage projects.

All Canadian governments and infrastructure developers should look to the CIB as a knowledgeable source of independent advice in advancing projects that benefit the Canadian public. With its long-term investment horizon and necessarily far-sighted view on sustainable public benefits, the CIB is well-positioned to collaborate across stakeholders and spearhead project development on the most complex but transformative projects for our country. To this end, because it makes repayable investments in revenue-generating infrastructure, the CIB is building a more sustainable model of infrastructure financing that can continually redeploy its capital on new projects and pivot to Canada's emerging infrastructure needs.

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