The Hill Times Policy Briefing | October 8, 2025

INFRASTRUCTURE

The Hill Times photograph by Andrew Meade

- **Do Canadians need new houses, or new homes?**
- **The promise and perils of nation-building projects**
- **Below the surface: Canada's hidden infrastructure crisis is a climate reckoning**

Featuring Don Davies, Jenny Kwan, Rosa Galvez, Shauna Brail, and many more.

INFRASTRUCTURE Policy Briefing

Overcoming infrastructure challenges requires better data sharing, say experts

Canada is facing an infrastructure deficit for new housing, and a funding deficit to manage the core assets already in place, says Canadian Infrastructure Council chair Jennifer Angel.

Housing and Infrastructure Minister Gregor Robertson said the new Build Canada Homes agency marks a turning point in how affordable housing is delivered in Canada, in a Sept. 19 press release. *The Hill Times photograph by Andrew Meade*

BY JESSE CNOCKAERT

Addressing an infrastructure crisis in Canada—including the need for climate resilience and the fact assets are aging faster than they are being replaced—will depend on factors such as finding better ways to share data to enable long-term planning, according to infrastructure experts.

"We're hearing from industry a keen interest in outcomes-focused procurements with more risk sharing, and I think if we want to unlock ingenuity and get at some of the solutions we need, there needs to be much greater risk tolerance and partnership in getting at solutions," said Jennifer Angel, chair of the Canadian Infrastructure Council (CIC). "We need to … make that data and evidence more widely available, [and] speak to the outcomes we're trying to achieve through infrastructure."

Canada is facing an infrastructure deficit when it comes to building new housing, as well as a funding deficit to manage the infrastructure already in place, according to Angel. In some cases, those gaps are "very significant," and indicate an urgent need to mobilize and direct capital towards solving infrastructure problems, she said.

In preparation for Canada's first national infrastructure assessment, the CIC released a report on Sept. 16 summarizing input on Canada's infrastructure challenges gathered from builders, developers, provincial and territorial governments, Indigenous leaders and organizations, climate experts, and others between this past January and April. Major obstacles contributing to Canada's infrastructure woes identified in the report included an "unnecessarily complex" infrastructure planning and delivery system, and inadequate data to help guide infrastructure projects. Planning infrastructure projects requires data including population trends, and information about climate change-related hazards, such as flood risks.

Canadian Infrastructure Council chair Jennifer Angel says, 'in some urban centres there's a great deal of data and capacity, but the nature of funding programs' may leave the highest priority items off the table. *Photograph courtesy of the CIC*

Civil engineering professor Hossein Bonakdari says unlike federal or provincial governments, cities don't have access to broader tax bases, and 'this creates structural imbalance.' *Handout photograph*

Angel told *The Hill Times* that, in some cases, the data exists, but isn't made available to the people making infrastructure decisions.

"In some cases, even when it exists and it is made available, there is an absence of capacity to actually benefit from it, and I think it's uneven across the country," she said. "What we're hearing, for example, is in some urban centres there's a great deal of data and capacity, but the nature of funding programs may not enable the highest-priority items to be prioritized, and in other instances … in smaller, rural and remote communities, quite often even when the data exists—if it exists—there was insufficient capacity in the teams tasked with managing public infrastructure to be able to use it."

When it comes to climate-resilient infrastructure, major barriers included a lack of up-to-date hazard data, and inconsistent consideration of climate change in planning frameworks, funding parameters, or design standards, according to the report. Possible solutions recommended by experts include more integration of forward-looking climate risk and relevant social data into infrastructure planning, design standards and funding parameters, as well as full infrastructure lifecycle costing and climate finance tools, such as green and climate bonds.

"I think we are buoyed by some of what we're hearing, in terms of the interest by governments and working more strategically around infrastructure, in accessing, for example, multi-year funding so that they can prioritize infrastructure that suits needs of their communities," said Angel. "I think investing in data and evidence, and linking funding to evidence-based solutions would itself be a pretty fundamental shift, and a necessary one … to build infrastructure that actually responds to what we need now and also to what we're going to need down the road."

Hossein Bonakdari, an associate professor of civil engineering at the University of Ottawa, told *The Hill Times* in an Oct. 4 emailed statement that Canada's infrastructure faces a "perfect storm" of challenges, including assets aging faster than renewal efforts can keep pace, fragmented governance and infrastructure funding, and "woefully inadequate climate resilience" that leaves communities vulnerable to escalating risks.

To upgrade or maintain existing assets in good condition, owners of core public infrastructure in Canada estimated that $294.4-billion was required for rehabilitation or replacement at the end of 2022, according to Statistics Canada. In 2019, Canada ranked second worst among Organisation for Economic Co-operation and Development member countries for the length of time required to obtain a general construction permit.

Bonakdari said in the email that proactive reinvestment isn't optional, adding that without it, infrastructure failures will become more frequent and costly.

Infrastructure delivery involves federal, provincial/territorial, municipal, and Indigenous governments, and the challenge is that each have their own mandates, timelines, and funding criteria. This fragmentation creates inefficiencies such as delayed approvals and construction of projects, according to Bonakdari.

Municipalities own roughly 60 per cent of Canada's core public infrastructure, including water and wastewater systems, local roads and bridges, public transit, waste facilities, parks, and libraries. Municipalities fund this infrastructure primarily through property taxes and development charges, which are narrow and inflexible, Bonakdari said.

"Unlike federal or provincial governments, cities don't have access to broader tax bases like income or sales tax," he said in the email. "This creates a structural imbalance: cities are responsible for the largest share of public assets but have the least capacity to finance long-term renewal, climate adaptation, or system expansion."

Bonakdari argued that the imbalance between the municipal and federal levels is "especially visible" in the federal Housing Plan, which includes leasing underused public land to developers to help build nearly 3.9 million new homes by 2031.

"The land may be available, but without upfront investment in water, sewers, stormwater, roads, and transit, estimated at $20-[billion] to $50-billion annually for enabling infrastructure, the housing cannot function," said Bonakdari in the email.

Housing and Infrastructure Minister Gregor Robertson (Vancouver Fraserview–South Burnaby, B.C.) said that Build Canada Homes—a new federal agency intended to build affordable housing at scale that launched on Sept. 14—marks a turning point in how affordable housing is delivered in Canada, in a Housing press release on Sept. 19.

"By combining bold investments with innovative construction methods and strategic partnerships, we're not just building homes—we're catalyzing the growth of the housing industry. And with the additional $1.5-billion for the Affordable Housing Fund, we're making sure that projects keep moving forward while Build Canada Homes ramps up. Canadians deserve housing that is accessible, sustainable, and built for the future," said Robertson.

Mary Rowe, president and CEO of the Canadian Urban Institute told *The Hill Times* that her definition of infrastructure includes everything that is part of a "healthy, functioning built environment," which encompasses not

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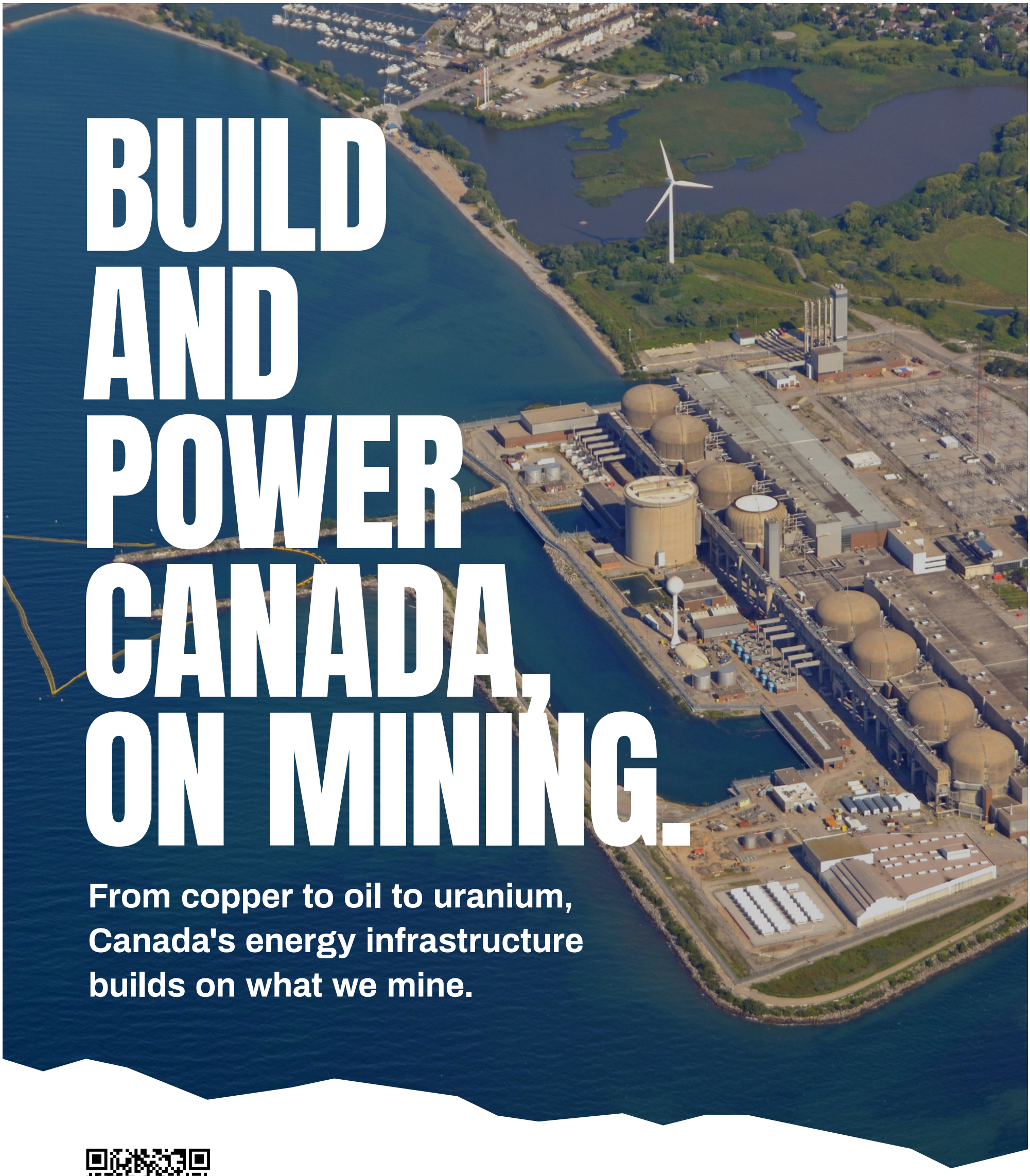

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Overcoming infrastructure challenges requires better data sharing, say experts

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only roads and bridges, but also libraries, street fronts and parks.

She said a major challenge in addressing infrastructure problems is unsustainable funding.

"We have an infrastructure deficit, and that is the result of deferred maintenance and just not quantifying and maybe not having the right formulas to figure out how do you actually raise revenues to be able to invest in infrastructure?" said Rowe. "We need a new formula. We need new ways of capturing revenue at the right order of government, because municipal governments don't have enough pathways to accumulate revenue, and that puts pressure on their system."

Rowe argued that urban downtowns, especially for smaller communities, are among the most important forms of infrastructure in Canada, since these areas are "incubators for innovation and for economic growth."

"They are critically important to how not only a city or a region functions, but to how regional economy—and therefore a national economy—functions. And we need investments in those downtowns," she said. "As we always say, an apple rots from the core, and this is never going to be wasted money … because downtowns create economic opportunity, and they build wealth and equity, and they're critical to the resident economy, to the newcomer economy, and to the tourist economy."

Rowe said that developing community infrastructure requires "hyper-local solutions," and so the challenge for the federal government is in finding fixes that work at that local level.

Related to infrastructure development, Prime Minister Mark Carney (Nepean, Ont.) on Aug. 29 launched the federal Major Projects Office (MPO). The office is intended as a single point of contact so that so-called "nation-building projects" may be built faster.

Rodrigue Gilbert, president of the Canadian Construction Association (CCA), told *The Hill Times* that he considers the MPO to be a step in the right direction.

"We are expecting that these announcements will help developing the infrastructure that we need. I think it's going to speed up the process, and we are absolutely willing to work with the federal government to make these new steps even better," he said.

On Sept. 11, a list was released of the first projects being referred to the MPO for consideration, which included a proposed expansion of an existing LNG Canada liquefaction and export terminal in Kitimat, B.C., that would double its production capacity; and the Darlington New Nuclear Project, in Bowmanville, Ont., which is a proposal to build and operate up to four new small modular reactors at the existing Darlington site to generate clean energy for Ontario's grid.

In a press release following the list of projects, the CCA argued that the selected projects sends "a strong signal from the federal government of their commitment to national infrastructure and a long-term plan for critical infrastructure."

Another challenge for infrastructure in Canada is the current trade war with the United States, according to Gilbert. The worst enemy when it comes to building anything in Canada is uncertainty, and tariffs affecting the cost of building materials puts Canada "in a very bad position," he said.

"Construction is not an export business. We import product. The tariffs, they have an impact as it slows down our own economy, but in the end it's the counter-tariffs that Canada puts on goods that are coming in Canada that [have a] real effect," he said. "I will give credit to the federal government on that. They are willing to work with us and they understand these issues, and I think more and more, we see them interested in working with us on the contract management and making sure that, in the end, we can still build what we have to build without putting at risk our industry."

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The Hill Times

Canada infrastructure statistics


Image courtesy of Pexels.com

- At the end of 2022, owners of core public infrastructure estimated that $294.4-billion was required for the rehabilitation or replacement of existing core public infrastructure in Canada to upgrade or maintain assets in good condition.
- In 2022, while $31.3-billion was invested to renew existing assets (11 per cent of required renewal budgets), there was a decrease in the share of assets in good or very good condition from 59 per cent in 2020 to 55 per cent in 2022.
- At $160.8-billion, transportation infrastructure—including roads, bridges, tunnels, active transportation networks, and public transit assets—accounted for more than half (55 per cent) of the required renewal budgets in 2022. That share was higher in rural municipalities (61 per cent) than in urban municipalities (48 per cent).
- Rural municipalities require more investments per capita to maintain their assets in good working condition. While less than one-fifth (18 per cent) of Canada's population lived in rural areas in 2021, these areas accounted for almost one-third (32 per cent) of municipalities' required renewal budgets in 2022.

—*Source:* Canada's Core Public Infrastructure Survey: Required renewal budgets, 2022*, released on June 24, 2025, by Statistics Canada*

The climate is changing faster than Canada's infrastructure—ignoring it is not fiscally responsible


According to the Canadian Climate Institute, the growing cost of disasters already consumes the equivalent of five to six per cent of Canada's annual GDP growth, writes Sen. Rosa Galvez. *Photograph courtesy of the Province of B.C./Flickr*

Extreme weather is already reshaping our economy, destabilizing our energy supply, weakening our ecosystems, and testing our infrastructure.

ISG Senator
Rosa Galvez

Opinion

Canada's infrastructure, much of it designed for a stable 20th-century climate, is struggling to withstand today's extreme weather. The consequences go far beyond damaged roads and buildings—they extend to our economy and finance systems, energy security, and preservation of ecosystems.

The financial burden of extreme weather

Insured catastrophic losses in Canada have risen steadily for more than a decade. In 2024, they reached a record $9.1-billion, making it the costliest year on record for climate-related damage. Over the past five years, the average annual cost has been $4.3-billion. These figures capture only insured losses; the real economic toll—lost productivity, uninsured damages, disrupted trade, and public health costs—is significantly higher. And according to the Canadian Climate Institute, the growing cost of disasters already consumes the equivalent of five to six per cent of Canada's annual GDP growth.

Energy security depends on renewable energy infrastructure

Our energy systems are especially vulnerable to extreme weather. Wildfires threaten transmission lines, as seen in Jasper in 2023, and floods have exposed pipelines to dangerous washouts leading to interruptions, like the 2021 shutdown of the Trans Mountain pipeline—the longest shutdown in its 70-year history. These events not only jeopardize energy security, but they also drive up consumer costs and weaken Canada's competitive advantage in clean energy exports. Pressure from the oil and gas sector on the federal government to build more pipelines across provinces to take oil to new ports and new clients is worrisome.

Before the Building Canada Act (Bill C-5) came into force, 504 major projects

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INFRASTRUCTURE Policy Briefing

Nation-building in an uncertain world: why Canada must invest in public infrastructure now

With economic uncertainty mounting and a recession looming, Canada must invest strategically to support long-term prosperity while addressing immediate challenges.

NDP MP
Don Davies

Opinion

Public infrastructure is the foundation of a resilient economy and a connected society. It shapes how we live, work, move, and interact. When thoughtfully built and consistently maintained, it becomes a lasting expression of national ambition and collective purpose.

After the Second World War, Canada embraced a nation-building vision, investing heavily in public works. Infrastructure spending peaked at three per cent of GDP in the late 1950s, but by the end of the century, that commitment had faded, dropping to just 1.5 per cent. Decades of underinvestment have left us with aging systems and growing gaps.

Much of the infrastructure that Canadians rely on today was built more than half a century ago, and since then, our population has more than tripled. Yet investment has not kept pace. Canada's infrastructure deficit is estimated at $270-billion just to maintain existing assets. That figure does not include what we must build to meet future needs, adapt to climate change, and strengthen our national resilience.

These pressures are particularly acute in Indigenous communities, where decades of federal neglect have created a staggering infrastructure gap. An estimated $425-billion is needed to end disparities in access to essential infrastructure by 2030.

The time to act is now. With economic uncertainty mounting and a recession looming, Canada must invest strategically to support long-term prosperity while addressing immediate challenges like rising unemployment and weakening growth. Public infrastructure can stimulate local economies, create good jobs, and strengthen communities.

Moreover, with United States President Donald Trump openly challenging Canada's sovereignty and destabilizing our economy, the need to reduce our dependence on the Americans has become urgent and unavoidable. Our supply chains remain heavily oriented toward the U.S., leaving us vulnerable to the whims of an increasingly unreliable partner. The solution lies in building self-sufficiency through infrastructure that connects our provinces and territories, strengthens internal trade, and expands our global reach.

A central pillar of this strategy must be the construction of a clean east-west electricity grid. For too long, Canada's energy infrastructure has been fragmented and oriented toward exports to the U.S. By linking renewable energy sources across provinces, we can build a truly national system that lowers costs, improves reliability, and strengthens our independence.

This project reflects a fundamental difference in the NDP's approach to infrastructure compared to the Liberals and Conservatives, who often treat it as a vehicle for corporate subsidies or a path to privatization. New Democrats see infrastructure as a critical nation-building tool that can improve daily life and prepare us for the future. Our focus is on public assets that serve people directly such as health care and education facilities, reliable transportation, climate-resilient infrastructure, and essential systems such as sewage, water, and telecommunications.

The NDP also believes that public infrastructure should be built by Canadian workers using Canadian materials, companies, and expertise. This strengthens domestic industries, supports family-sustaining jobs, and ensures public dollars stay in Canada. For this reason, federal procurement policies must be reformed to prioritize Canadian suppliers and end the outsourcing of major contracts to foreign firms.

To help fund this ambitious agenda, the NDP is proposing a modern version of Victory Bonds. These bonds would allow Canadians to invest directly in public infrastructure, offering secure returns while supporting national priorities. This approach avoids the pitfalls of privatization.

Too often, Liberal and Conservative governments have relied on privatization and public-private partnerships that erode public control and drive-up long-term costs. These models shift decision-making toward profit-driven interests, leaving communities with tolls, user fees, and deteriorating services. Victory Bonds, by contrast, would keep infrastructure publicly owned and democratically accountable.

Canada's future depends on infrastructure that is inclusive, resilient, and nationally co-ordinated. We must move beyond fragmented planning and short-term fixes. It's time to renew our public infrastructure and shape a future that reflects our values and aspirations.

Don Davies is interim leader of the New Democratic Party of Canada, and the MP for Vancouver Kingsway, B.C.

The Hill Times

A critical moment for the climate emergency, and a green infrastructure deficit

An alternative vision is not only possible but necessary to secure Canada's economic future.

NDP MP
Jenny Kwan

Opinion

Humanity faces unprecedented danger from climate change and biodiversity loss. Eight thousand forest fires occur in Canada each year with 2.1 million hectares on fire on average. To put it in perspective, that's nearly half the size of Nova Scotia in flames each year.

Canada saw the worst wildfires in the country's history in 2023, engulfing more than 17 million hectares of land, and requiring approximately 232,000 people to be evacuated. The cost: nearly $10-billion, with $3.1-billion in insured damages.

In 2024, Canada suffered another $8.5-billion in losses, and we saw Jasper, Alta., engulfed in flames. In 2025, while all the figures are still being tallied, as of July, there were more than 3,500 wildfires spanning over six million hectares.

Toxic air pollution, respiratory problems, and communities in a state of constant anxiety. Annual wildfires have evolved from occasional events into recurring disasters.

Instead of doubling down to address the impact of the climate crisis, Prime Minister Mark Carney's first act was to cancel the carbon tax. He put a pause on the zero-emission vehicle sales mandate, and—with the help of the Conservatives—rammed through Bill C-5, legislation that will bypass environmental reviews for what Carney and his cabinet will decide are major projects of national interest. All of this as Canada is poised to miss its 2030 climate target of reducing greenhouse gas emissions by 40-50 per cent below 2005 levels.

No matter the spin, Canada's actual emissions are currently sitting at 8.5 per cent below 2005 levels. The Liberal government's inaction is equivalent to pouring gasoline on the flames. CEOs of big oil companies raked in billions of dollars while communities across Canada were ravaged by forest fires over successive summers. These companies are taking no responsibility for their decades-long polluting practices—they just want to maximize profits. Meanwhile, Canadian banks are among the largest investors in the fossil fuel sector worldwide.

In 2015, on the eve of COP21, well before he became prime minister, Carney outlined the global financial risks of a climate crisis. He said climate change is an existential threat to the financial system, and he called for major banks to include climate crisis risks in their investments to align with the Paris Agreement.

A decade later, all of Canada's major banks have pulled out of their climate commitments now that United States President Donald Trump is at the helm. Now that he is prime minister, Carney is backtracking on Canada's commitment to climate action to appease Trump.

An alternative vision is not only possible but necessary to secure Canada's economic future—a vision that grows the economy, creates jobs, supports communities, and helps the country meet its emissions goals. Here are some examples of the type of nation-building major projects that can transform Canada:

1. Close the infrastructure gap for First Nations. As identified by the Assembly of First Nations, this will boost Canada's economic output by $635-billion, create and sustain more than 338,000 jobs per year, and generate more than $87-billion in government tax revenue.

2. Fast-track nation-wide infrastructure for electric vehicle charging stations across the country. This would add $48-billion and up to 250,000 jobs to Canada's economy through the expansion of a domestic electric battery supply chain.

3. Make massive investments in a built-by-Canadians-for-Canadians public transit system. In the next 10 years, Metro Toronto, Montreal, and Vancouver's transit systems will need at least 5,000 new buses and more than 200 trains.

4. Upscale and expand retrofit initiatives to existing homes to make them low carbon and resilient to the effects of climate change. A deep energy retrofit program can reduce energy by up to 90 per cent, and cut operational carbon emissions by as much as 99 per cent.

5. Establish permanent wildfire protection measures with permanent teams who receive training for community defence and ecosystem protection similar to those implemented by California, Australia, and elsewhere.

6. Establish a Youth Climate Corps. With youth unemployment in double digits, this will revolutionize our approach to fighting fires, address climate change, and instill hope for the future.

Canadians demand innovative solutions and investments instead of partial solutions and half measures at this critical moment of a climate emergency and a green infrastructure deficit.

Jenny Kwan is the NDP critic for housing, immigration, refugees and citizenship, public safety, national security, infrastructure, and Pacific Economic Development.

The Hill Times

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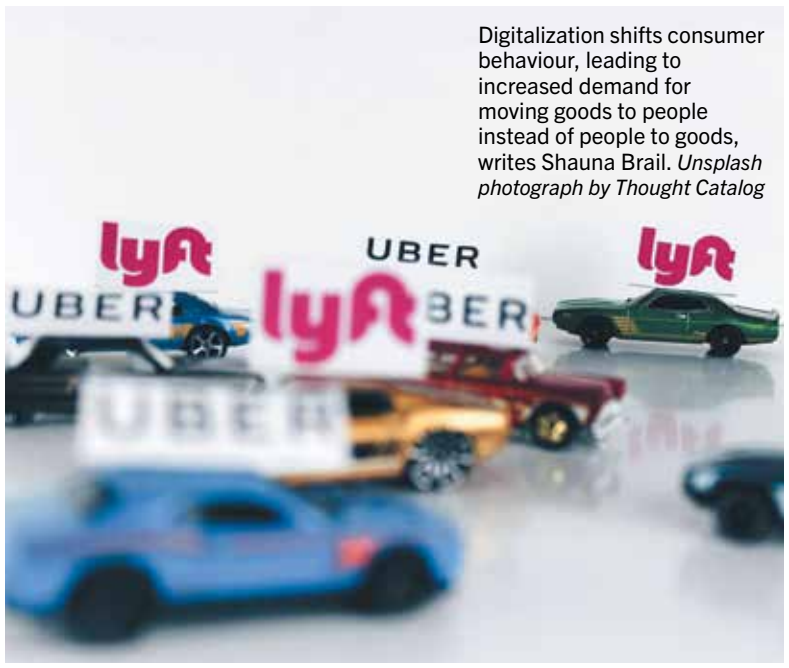
INFRASTRUCTURE Policy Briefing

As digital transformation reshapes our world, our expectations for physical infrastructure must evolve

In cities, the digital economy interacts with physical and publicly funded infrastructure, often in unexpected ways.

Shauna Brail

Opinion



Digitalization shifts consumer behaviour, leading to increased demand for moving goods to people instead of people to goods, writes Shauna Brail. *Unsplash photograph by Thought Catalog*

The Canadian government aims to advance its nation-building goals through the pursuit of infrastructure building. To achieve priorities focused on speed amidst global change, building economic capacity and resilience, and growing jobs, policymakers must recognize two critical realities. First, that infrastructure investments are also urban investments. And second, that a rising reliance on digital platforms and digital technologies affect publicly provided infrastructure.

Public infrastructure projects, in addition to—usually—leading to the development of needed infrastructure, generate highly desirable spillover benefits and multiplier effects. These serve as opportunities to attract investment, commercialize nascent and home-grown technologies, train workers, and increase employment. Infrastructure investments contribute to improvements in productivity, and produce a return on investment that tends to outperform most other public investments.

As such, the federal government's announcements related to fast-tracking nation-building projects like the expansion of the Port of Montreal and the development of small modular reactors in Bowmanville, Ont.—alongside greenlighting projects including the strategic work to develop a national high-speed rail network—make sense. These are economically transformative projects, selected as a way of setting Canada on a path to what the government called a "stronger, more competitive and prosperous economy for Canadian workers."

Cities are where most Canadians live—and where the country's economic and population growth is most concentrated. Our six largest cities are home to just less than half of Canada's residents, and more than half of the country's jobs. In cities and city-regions, Canadians experience the physical transformations and economic opportunities that come with infrastructure investment. Examples include the remediation of public waterfronts and park spaces, the rise of entire mixed-use neighbourhoods, and the addition of new transit lines. The impacts of infrastructure investments in cities can be measured through increases in productivity, the creation of new jobs and businesses, or the buzz generated by the concentration of people and ideas. It is relatively easy to "see" how physical infrastructure transforms a place.

It takes more effort to recognize the ways that digital transformations impact—and are affected by—physical infrastructure and infrastructure investment.

While digital infrastructure like data centres is essential, this is a call to recognize how digital platforms and technologies are reshaping the physical infrastructure needs of our cities.

In cities, the digital economy interacts with physical and publicly funded infrastructure, often in unexpected ways. For instance, Canadian cities have seen an acceleration of people working in the gig economy over the past decade. Statistics Canada estimates that in 2023, nearly half a million people earned income through work on digital platform firms.

In our cities, the rise of digital platforms and digitally driven labour produces a physical trail. Ride-hail vehicles are visible in waiting areas at airports, train stations, and throughout downtowns; delivery drivers concentrate on sidewalks and curb spaces awaiting their next job. Digitalization shifts consumer behaviour, leading to increased demand for moving goods to people instead of people to goods. These shifts challenge traditional infrastructure planning, demanding new approaches to curb space management, transit integration, and energy use.

Not only does this mean that we need more physical capacity—or infrastructure—to move goods, but also the warehousing capacity to store products, and the ability to transport items from embarkation to destination. Digital activity also demands energy and storage space. Moreover, in a world of fluctuating geopolitical tensions, made-by-Canada solutions are a political, economic and social priority.

As digital transformation reshapes our world, our expectations for physical infrastructure must evolve in tandem. Public investments in infrastructure don't just yield economic returns, but they also spark ripple effects that strengthen cities, fuel the digital economy, and expand access to digital opportunity. Recognizing and embracing these broader digital impacts is essential to building a stronger, more resilient, and future-ready Canada.

Shauna Brail is a professor at the Institute for Management and Innovation, and holds a cross appointment at the Munk School for Global Affairs and Public Policy at the University of Toronto.

The Hill Times

Bill C-8's moment of truth: draw the line on what's 'critical'

Bill C-8 establishes a protection regime for federally regulated sectors, and should be treated as a generational opportunity to replace chalk lines with mathematics.

Tyson Macaulay

Opinion

Up to the late 1500s, ships were not built to a plan. Craftsmen relied on rough guidelines, drawing lines on the floor to eyeball dimensions. This practice created major drawbacks for fleets of commerce and war: vessels were difficult to reproduce, maintain, and supply; performance and stability varied; hidden weaknesses slipped through construction; and standardized spares or repairs were impossible. Operational risk was high.

In the 16th century, shipbuilding became standardized. Mathematical hull geometry and naval classifications made safety, quality, and resilience measurable. Data from Lloyd's insurance dating to the 1600s show marked reductions in losses to life and property as formal standards emerged.

Canada's critical infrastructure (CI) protection still resembles that pre-plan era. Deciding what counts as "critical" within the 10 official sectors remains more craft than science. The result is predictable: perceptions of risk vary, regulatory expectations are uneven, and national awareness blurs when clarity is needed most. Jurisdictions often rely on instinct, while CI operators apply inconsistent methods—some depending on institutional memory, others on *ad hoc* thresholds. The outcome is inconsistency: an asset may be "critical" locally but invisible to interdependency analyses intended to tie the system together.

The 10 sectors—energy, finance, telecommunications, food, water, health, transportation, manufacturing, safety, and government—provide scaffolding, but determining who is "in" or "out" often looks like chalk lines on a shipwright's floor: subjective, mutable, and hard to defend under stress. Some industries occupy grey zones, intuitively critical in some circumstances but not in others. This ambiguity seeps into regulation, emergency planning, and cross-border co-ordination, where foreign definitions are often tighter. A taxonomy that cannot be applied consistently cannot be managed consistently.

The consequences are practical. Regulators must know exactly whom they regulate and why. In a crisis, decision-makers must justify how power, bandwidth, medicines, or fuel are triaged and restored—ideally on criteria that survive public scrutiny and after-action review. Post-incident reporting likewise requires clean definitions to compare events across time and geography. Without methodical definitions, we generate noise: incompatible risk registers, outage metrics, and assessments that cannot be pooled or trended.

Bill C-8, An Act respecting cyber security, establishes a protection regime for federally regulated sectors: telecommunications, finance, energy, and transportation. The intent is sound: align oversight with systemic risk, sharpen reporting, and develop detailed guidance. But effectiveness depends on crisp, quantitative scoping that reflects how goods and services are delivered in 2025. Legacy definitions risk regulating the core while systemic vulnerabilities linger at the edges.

Consider telecommunications. Last operationally framed in the early 2000s, it included radio, broadcasting, and print when carrier networks moved voice, video, and data separately. Two decades later, everything runs

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The climate is changing faster than Canada's infrastructure—ignoring it is not fiscally responsible

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were already under construction or planned over the next 10 years in Canada's energy, forest, and mining sectors, with a combined potential capital value of $632.6-billion. In Quebec with its strict Office of Public Hearings on the Environment, the Plan Québécois des infrastructures 2024-2034 announced $153-billion for infrastructure, including $87.6-billion to ensure the sustainability of public infrastructure. Ultimately, projects that are good for the environment are good for the nation, and nation-building infrastructure projects rooted in best practice shouldn't fear a serious environmental assessment.

Experts are clear that we must accelerate the pace at which we build renewable energy infrastructure and adapt existing energy infrastructure. This requires smarter grids, diversified renewable sources, and policies that anticipate rising demand and volatility. We must also consider the higher frequency of wildfires, and the projected decline in demand for oil and gas. Consider for a moment the notion of building new pipelines to transport highly flammable liquids through wildfire-prone regions—we must honestly weigh the risks against the promise of increased revenues. And we must ask for transparency and assurance so that projects are technically, economically, environmentally, and socially sound and efficient.

Ecosystem resilience lessens the impacts of extreme weather

Without resilient ecosystems, Canadians become even more vulnerable to climate extremes. The United Nations has repeatedly emphasized that protecting ecosystems is a frontline adaptation strategy. Yet, much of Canada's core infrastructure has been designed for the climate of the past. Roads, bridges, and water/wastewater systems are not built to withstand the conditions of our rapidly changing climate. Urban drainage is overwhelmed by intense rainfall, while northern buildings are destabilized by thawing permafrost.

Adapting our infrastructure for the climate of the future

Building codes and land-use planning have not kept pace with the risks of a changing climate. Too often, homes and businesses continue to be constructed in flood plains or wildfire-prone areas. These areas must be identified, and information must be shared with provincial and municipal authorities. The Insurance Bureau of Canada has urged governments to adopt stronger building standards, integrate FireSmart practices, and discourage development in high-risk zones. Yet updates remain slow.

Adapting infrastructure is not just a technical challenge; it is a governance challenge. Evidence shows that for every dollar spent on adaptation and resilience, more than $10 in benefits over 10 years is generated yet federal disaster assistance spending is ballooning. Furthermore, studies estimate that even a low-emissions scenario could lead to climate impacts that may cost the Canadian economy $78-billion annually by mid-century. Despite the promise of proactive adaptation cutting these costs in half, political will remains uneven, and funding fragmented.

The UN's latest *Global Assessment Report on Disaster Risk Reduction* calls for governments to shift from managing disasters after they happen to preventing and preparing before they occur. Indeed, studies have shown that for ever $1 spent on disaster risk reduction there is an average return of $15 in terms of avoided future disaster recovery costs.

Extreme weather is already reshaping our economy, destabilizing our energy supply, weakening our ecosystems, and testing our infrastructure. We have a choice: continue to absorb mounting losses or invest strategically in resilience. The costs of inaction are clear; the benefits of foresight are proven. Canada must adapt its infrastructure now—not only to protect our economy and environment, but to also show citizens that their leaders are committed to safeguarding their future.

The Honourable Rosa Galvez is a civil-environmental engineer, and an Independent Senator for the province of Quebec.

The Hill Times

INFRASTRUCTURE Policy Briefing

The laudable goal of a Team Canada approach to accelerating nation-building infrastructure opens the risk that the federal government will buckle to unworthy pet projects, writes Matti Siemiatycki. *The Hill Times photograph by Andrew Meade*

The promise and perils of nation-building projects

Getting swept up in political hype and hubris can lead to the wrong projects, poor priorities, and terrible outcomes.

Matti Siemiatycki

Opinion

"Make no little plans" is the classic invocation from the American architect and urban planner Daniel Burnham to dream big and be bold.

Prime Minister Mark Carney is channeling the same energy with his call to "build, baby, build."

Amidst the current economic upheaval, affordability crunch, and tensions around national unity, nation building through mega-projects has become the order of the day.

There's no doubt Canada needs to get on with ambitious nation-building projects, in a country that has increasingly felt sluggish, timid, and risk averse.

But getting swept up in political hype and hubris can lead to the wrong projects, poor priorities, and terrible outcomes. To truly benefit from the push for nation-building infrastructure, Canada must ensure that evidence is used to select the best projects, and that they are effectively delivered.

The first wave of proposed projects revealed thus far lean heavily on energy, ports, trade corridors, and resource-extraction projects, as well as major federal investments to boost housing construction.

On the positive side, from the outset there appears to be efforts between the federal, provincial and local governments to align nation-building priorities and streamline processes and financing. The introduction of the Major Projects Office is a good step forward, with more work still needed to meaningfully engage and partner with Indigenous Peoples.

A key question is the criteria and evidence being used to pick the priority projects, and how this information is publicly reported. How are economic goals being balanced with environmental and social impacts, both at the individual project level and across the entire portfolio of nationally significant projects?

Transparent reporting of rigorous project business cases is especially important since alongside accelerated approvals, there is an expectation that governments will provide significant investment in at least some of the projects on the national priority list. In a context of scarce resources and large government debts, there is no money to waste on costly white elephants.

The laudable goal of a Team Canada approach to accelerating nation-building infrastructure opens the risk that the federal government will buckle to unworthy pet projects, siphoning money and political will away from other national priorities.

Even if the best mega-projects are selected, they still need to be well executed. Canada has struggled mightily with effective delivery of just the types of projects that are now being eyed for acceleration, whether led by the public or private sector.

There is a litany of transformative mega-projects that have recently gone off the rails with catastrophic cost overruns and delays: the Muskrat Falls and Site C Dams, the Trans Mountain and Coastal GasLink pipelines, the Bipole III electricity transmission line in Manitoba, and numerous recent transit projects delivered through public-private partnerships.

When nation building is invoked and projects are too big or too politically important to fail, governments too often become the backstop of last resort. This poses a huge risk that nation-building projects that are seen today as economic winners become tomorrow's financial albatrosses, with higher-than-expected user fee rates or elevated debt levels.

For Bent Flyvbjerg and Dan Gardner, the authors of *How Big Things Get Done*, being deliberate in studying the merits of a project and rigorous in producing project designs and delivery plans enables construction to go quickly.

Canada also needs to ensure there is a sufficient construction workforce in the face of a coming wave of retirements, and develop a core of modern mega-project leaders that can shift the culture of project delivery from brute force to more collaborative, creative problem solving.

If done well, Canada's current wave of nation building will usher in a period of inclusive prosperity and community benefits. If not, we will be further burdened by financial debt and failed promises when we most need a win.

Matti Siemiatycki is director of the Infrastructure Institute at the University of Toronto School of Cities. He is also the host of the Good for Cities *podcast.*

The Hill Times

Do Canadians need new houses, or new homes?

We should embrace a broader public vision that supports families in accessing affordable homes integrated into local community infrastructure and services.

David Watters, Ryan Deschamps & Rahim Rezaie

Opinion

Prime Minister Carney set seven national missions for his government, including "Making housing more affordable." To this end, on Sept. 14 he announced a new agency, Build Canada Homes, and provided $13-billion in initial capital "to increase the housing supply in Canada" starting with 4,000 factory-built homes. However, the direction and scope of this new program raises several public policy concerns: is it ambitious enough, is it focused on providing the right outcomes, is it comprehensively funded? We suggest it falls short on all three counts, and needs adjustment.

Is it ambitious enough?

This past June, the Canada Mortgage and Housing Corporation reported that up to 4.8 million new houses will need to be built by 2035 if housing affordability is to return to the reasonable levels last seen in 2019. But this means doubling housing construction from its current levels of about 245,000 units in 2024 "to between 430,000 and 480,000 housing units" per year. So, while the 4,000 new units is a laudable start, it is only 0.08 per cent of the 4.8 million new units that are forecast to be needed by 2035 to achieve affordability. Where are the annual housing targets and plans to achieve them?

Is it providing the right outcome?

With an average family size in Canada of 2.9 people, 4.8 million

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Building more homes is a shared vision. Now we need the infrastructure to make it real

Everyday infrastructure like roads, bridges, pipes, public transit, stormwater management is critical to turning housing aspirations into reality.

Rebecca Bligh

Opinion

The launch of Build Canada Homes earlier this year marked an exciting breakthrough, representing a historic approach to tackle the country's housing crisis at a scale not yet seen by building 500,000 homes annually. However, what we truly need now is the critical infrastructure that will turn these housing aspirations into reality.

If we don't plan for infrastructure critical to creating vibrant neighbourhoods from the start, housing projects can face significant delays or may never get off the ground at all, writes Rebecca Bligh. *Pexels photograph by Harry Thomas*

We're talking about everyday infrastructure like roads, bridges, pipes, public transit, stormwater management, and essential community spaces like parks and recreation centres. These are fundamental in creating vibrant, livable neighbourhoods that connect people with jobs, schools, and green spaces. If we don't plan for them from the start, housing projects can face significant delays or may never get off the ground at all. Not only will these investments help build new housing, but they will also grow local economies, support businesses, and improve trade routes.

Across Canada, local governments are unlocking land for housing, fast-tracking permit processes, and planning for growth. However, they're running into a common hurdle: crumbling infrastructure.

For example, in a growing Ontario town, a new subdivision sits idle because the wastewater system can't be upgraded. In a bustling Prairie city, transit expansion lags behind rising housing demand. Coastal communities face aging roads and outdated stormwater systems that can't support new construction—especially as climate change is a daily challenge affecting lives.

Infrastructure might not be the trigger for the housing crisis, but it's a major piece of the puzzle we can't ignore. It goes beyond a simple funding issue; it's about timing, co-ordination, and the ability to get the job done.

Municipalities are stepping up, but they need the right tools to match the urgency of this issue. Municipalities also face limits in their revenue tools, which contributes to the infrastructure deficit and limits their ability to support new housing. We need a dedicated and consistent fund that supports the infrastructure essential for housing development. This funding should go directly to municipalities, so local governments can make the most impact. It's imperative that all orders of government co-ordinate effectively, ensuring communities have the necessary systems in place for home construction to proceed smoothly.

Provinces and territories are essential partners, especially to ensure the success of supportive and transitional housing developments. Aligning policies, streamlining permitting, and supporting local priorities can help unlock stalled projects, especially for small and rural communities who struggle to access major funding because of a lack of resources. A successful national housing initiative depends on all orders of government working together to empower communities and deliver results.

When we build, we must build resilient infrastructure. The ability to withstand floods, fires, and severe weather is no longer a luxury; it's a necessity. Communities across Canada are already facing these real threats, and we need to ensure that the systems we build now can withstand the challenges of the future.

Municipalities stand ready to help close the gap. They can work collaboratively with other communities and non-profits—many of whom may not have the resources to present full project proposals—to elevate their ideas to the federal level.

With appropriate tools and support, municipalities can transform local aspirations into substantial national progress.

Rebecca Bligh is president of the Federation of Canadian Municipalities.

The Hill Times

Bill C-8's moment of truth: draw the line on what's 'critical'

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over internet protocols. Where do data centres, cloud platforms, or AI clusters fit? This matters: up to 50 per cent of cloud and software as a service consumed by Canadian CI—especially in finance—are imported and controlled abroad. Canada has no domestically owned content delivery networks (CDNs), yet these CDNs underpin delivery of nearly all e-government portals, online banking, and cultural platforms such as the CBC and CTV. In 2024, more than 65 per cent of Canadians relied on a mix of online streaming and linear TV, while more than 20 per cent streamed content exclusively via CDNs. Definitions that ignore such realities create rules and regulations with diminished effectiveness.

Like modern ships, CI definitions must rest on reliable systems, not rules of thumb. Using trusted sources such as Statistics Canada's supply-chain metrics, we can identify industries and regions that are most consequential under different scenarios. Additional indicators of criticality and interdependency such as data-flow sensitivity, geographic proximity, or goods-versus-services distinctions could be correlated to expose strengths and gaps. These metrics turn intuition into evidence, making "criticality" a reproducible property rather than a label of tradition.

The same logic applies to risk assessment. Today, municipal and provincial offices expend heroic effort, but outputs rarely interlock. Differing templates, scales, and consequence categories frustrate analysis across jurisdictions. A standardized national toolkit with common definitions, hazard libraries, and risk scales would enable aggregation. When every assessment and after-action report speaks the same language, trends emerge and priorities can be set by evidence, not anecdote. Standardization is not centralization; it is the grammar that allows a federation to reason collectively.

Bill C-8 should be treated as a generational opportunity to replace chalk lines with mathematics. Systematic, definitions rooted in transparent and quantitative methods can anchor regulatory scope, security targets, and emergency practices on a defensible foundation. In parallel, Canadian standards bodies should publish a canon for risk assessment: definitions, data standards, scoring scales, dependency questions, and reporting templates. With interoperable methods and open guidance, thousands of local assessments become national intelligence. As with the evolution from chalked floor lines to naval architecture, the payoff is practical: fewer surprises, faster recovery, and a resilient, more prosperous Canada.

Tyson Macaulay is the deputy director of the National Centre for Critical Infrastructure Protection, Security, and Resilience at Carleton University.

The Hill Times

Below the surface: Canada's hidden infrastructure crisis is a climate reckoning

Canada needs a forward-looking National Water and Wastewater Infrastructure Act to establish a framework for co-ordinated investment, standardized data collection, and climate resilience.

More critical infrastructure networks are being buried to shield them from storms and wildfires. Yet the very ground that offers protection is becoming less stable due to climate change, writes Ali Bayat. *Screenshot courtesy of YouTube/City of Calgary*

Ali Bayat

Opinion

The 2024 water crisis in Calgary was more than an inconvenience; it was a stark warning of a national vulnerability we can no longer afford to ignore.

For weeks, a single pipe failure held a major Canadian city hostage, disrupting more than a million lives. The direct repair costs are estimated to be more than $40-million, but the total economic damage to the city's GDP from throttled business operations is far greater. This event pulled back the curtain on the fragile state of the vast, invisible infrastructure network beneath our feet.

This subterranean world of pipes, cables, and conduits is the backbone of our daily lives. The creation of modern sewer and water systems has arguably saved more lives than any single medical advancement in history by eradicating waterborne diseases. Today, our reliance has only deepened. Every time we turn on a tap, flip a switch, or connect to the internet, we are trusting assets that are largely out of sight and—tragically—out of mind.

The Canadian Infrastructure Report Card has repeatedly sounded the alarm: a significant portion of our municipal water, wastewater, and stormwater systems are in fair to very poor condition. These assets were placed underground decades ago under a dangerous assumption of permanence. But ruptures, sinkholes, and catastrophic failures tell a different story. These are not simply maintenance issues; they are serious risks to public health, safety, and economic stability.

Two challenges compound the problem. First, neglect is the norm until failure strikes. Condition assessments are expensive and technically difficult, leaving municipalities trapped in a reactive cycle of emergency repairs that are exponentially more costly than proactive maintenance. Second, governance is fragmented. These systems are managed city by city, with uneven resources and priorities. This patchwork approach prevents a unified national strategy for assessing risks and allocating investment.

Climate change multiplies these risks. As extreme weather intensifies, more critical infrastructure—power lines, fibre-optic cables, communications networks—is being buried to shield it from storms and wildfires. Yet the very ground that offers protection is becoming less stable. Shifting freeze–thaw cycles, intense rainfall, and prolonged droughts place unprecedented stress on aging pipes, accelerating their degradation. We are caught in a dangerous paradox: relying more heavily on underground systems just as they become more vulnerable.

The time for reactive crisis management is over. We already recognize pipelines and railways as strategic national assets, protecting them under federal legislation such as the Canadian Energy Regulator Act and the Railway Safety Act. It is time we treated our water and wastewater systems with the same gravity. Canada needs a forward-looking National Water and Wastewater Infrastructure Act to establish a framework for co-ordinated investment, standardized data collection, and climate resilience across the country.

This does not mean a federal takeover, but a federal partnership. Through a coherent national strategy and dedicated resiliency funding, municipalities can be empowered to conduct the unglamorous but vital work of inspection and renewal. Industry, researchers, and governments must collaborate to deploy innovative technologies—AI-enabled inspection, trenchless renewal methods, and digital mapping—that make this generational task more effective and less costly.

Neglecting what lies beneath threatens more than water security. It jeopardizes economic competitiveness, housing development, trade, and Canada's ability to meet its climate commitments. The Calgary crisis was a wake-up call, but it should not take more billion-dollar failures to drive action.

Canada's resilience depends on what lies unseen. Investing below the surface is how we secure prosperity above it.

Dr. Ali Bayat is a professor and senior engineering research chair at the University of Alberta, and the director of the Canadian Underground Infrastructure Innovation Centre where he focuses on advancing research and education for underground infrastructure.

The Hill Times

Building Canada's infrastructure for resilience and sustainable development

Infrastructure is not only concrete, steel, and wood. It is about people, places, and possibilities.

Jeff Rankin

Opinion

Canada is at a crossroads. With much of our public infrastructure aging and under strain, the decisions we make today will shape our communities, economies, and environment for generations. It is no longer enough to focus solely on building quickly or cheaply at a reduced initial cost. The true measure of infrastructure is its ability to serve people equitably, to protect the land and water, and to secure a better future for all.

This reflection comes at an important time, one of looking both backward and forward, acknowledging and reconciling the lessons of the past while envisioning the future we must build. This recognizes that infrastructure is not static, it evolves with the needs of our communities, and it carries the impacts of our choices long after budgets and political cycles fade.

As president of a learned engineering society—the Canadian Society for Civil Engineering—I appreciate that our profession is intertwined with the lands, waters, and communities that have sustained Indigenous Peoples since time immemorial. When we acknowledge that our work takes place on Indigenous homelands and we affirm treaty rights, this is our commitment to uphold principles of mutual co-existence rooted in humility, wisdom, honesty, and love that must guide how we plan and build. This means listening carefully and ensuring infrastructure advances reconciliation and respect as much as it serves economic development, especially as we grow into undeveloped lands and waters to the North.

Infrastructure is more than meeting technical performance. Under the framework of the United Nations Sustainable Development Goals, it should not merely deliver services; it should empower the under-privileged, reduce inequities, and create inclusive opportunities. Roads, bridges, water systems, waste treatment facilities, and housing are the foundations of participation in society. If built without

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The price tag on housing-enabling infrastructure is prolonging our housing crisis

The cost of infrastructure expansion is typically covered through development charges paid by developers when they build new housing, which exacerbates Canada's significant affordability crisis.

Olha Sotska

Opinion

With the fall parliamentary sitting now underway, all eyes are on Nov. 4—Budget 2025 is the long-awaited first fiscal update under Prime Minister Mark Carney. Although details remain under wraps, the government has signalled a focus on "once-in-a-generation" investments in housing and infrastructure.

Such investments would be more than welcome given the reality we face. For the past decade, Canadians have been grappling with a severe housing crisis, characterized by a shortage of homes. According to the Canada Mortgage and Housing Corporation's latest estimates, we need to build 430,000 to 480,000 new housing units annually by 2035 to meet projected demand—that's double our current construction rates, which are declining at an alarming pace across urban markets.

The concept is straightforward—"build, baby, build"—but the execution promises to be complicated. Numerous other aspects come into play, including the critical role of infrastructure.

The availability of adequate housing-enabling infrastructure, from utilities and roads to community services, is essential to ensuring new housing developments can create functional, connected and livable communities. In most Canadian jurisdictions, the cost of infrastructure expansion is typically covered through development charges paid by developers when they build new housing—an approach introduced by municipalities to not rely exclusively on the property tax base, and to ensure that growth pays for growth. This, however, exacerbates Canada's significant affordability crisis.

One issue is the alarming rate at which these development charges have risen, particularly in large urban centres, becoming one of the most significant expenses associated with building new housing. For instance, in the Greater Toronto Area, development charges increased by approximately 400 per cent between 2015 and 2024 to nearly $140,000 per a detached or semi-detached home. In Vancouver, rates are scheduled to increase by more than 250 per cent between 2023 and 2027, with a new 700-750 square foot condo unit already reaching charges of more than $130,000 per unit.

Developers must pay these charges upfront, creating a capital requirement before construction even begins. To cover it, developers borrow, which comes with interest costs and double taxation. Yes, that's correct—provincial and federal governments are charging taxes on these fees. At a time when we need to significantly increase housing supply, all efforts are being constrained by taxes and fees that represent as much as 36 per cent of the purchase price of a home.

Developers are in a cost-of-delivery crisis—development charges are piled on top of high land prices, capital availability, regulatory bottlenecks, persistent building code changes, labour shortages and supply chain disruptions—making projects extremely expensive or unviable. Developers pass the financial burden down the line to renters and buyers or choose not to build. Either scenario has serious consequences for a) individuals hoping to buy a home, and b) workers in residential construction. If developers can no longer afford to build because the public can't afford to buy, then there is a serious risk to construction and other housing-related jobs.

The magnitude of the issue has elicited some action by the federal government, mainly through the introduction of a $6-billion Canada Housing Infrastructure Fund. Municipalities with a population of more than 300,000 people have to implement a three-year freeze on development charge increases, starting from April 2, 2024, in order to be eligible for federal funding related to housing infrastructure.

While the fund is a step in the right direction, more is needed. Freezing charges is not sufficient. Charges have reached exorbitant levels for both developers and homebuyers, and maintaining current levels is neither sustainable nor efficient. Without meaningful reductions in development charges, the financial strain will persist and affordability will remain out of reach.

During the election campaign, the Liberal Party pledged to "cut municipal development charges in half for multi-unit residential housing for five years, offsetting those revenues by federal investment in housing infrastructure like water, power lines, and wastewater systems." Another potential step toward progress, but they must get it right. To create long term home building viability, those cuts need to be permanent.

The time for action is overdue. The affordability crisis is enormous, and lowering development charges is only part of the solution. There is an urgent need for Budget 2025 to turn federal pledges and promises into actions with real, lasting impact.

Olha Sotska is a policy adviser responsible for the housing file at the Canadian Chamber of Commerce.

The Hill Times

Nation-building starts with builders

This country urgently needs to invest in skills training, take action to scale apprenticeships, and work with us to destigmatize careers in the trades.

Rodrigue Gilbert

Opinion

At long last, Ottawa is putting construction at the centre of Canada's economic strategy. In the past few weeks alone, the federal government has launched the Major Projects Office, released its first list of nation-building projects, stood up the Build Canada Homes agency, and introduced new measures to support sectors affected by tariffs. These consecutive policy moves are more than hopeful statements—they are tangible steps signalling that nation-building and infrastructure investment are moving forward.

The Canadian Construction Association welcomes this focus. Construction is more than buildings and roads; it is the backbone of communities and Canada's economy, defence, and sovereignty.

But, if Canada is going to—as Prime Minister Mark Carney says—"build, baby, build," it must also be paying attention to the plans that are put in place. It's not just about infrastructure, it's also about adequate investment for those projects to succeed. Big investments will only succeed if we get the how right.

How do we guarantee our materials? Supply chain disruptions—whether from recent tariffs, Buy Canadian rules, and North American trade frictions—are real risks. The construction industry is vulnerable to fluctuations in construction materials. So how do we fortify supply chains and build in resilience?

How will we build it? Infrastructure doesn't magically construct itself. Canada's construction sector already employs some 1.6 million people, and contributes about $162-billion to the GDP. But we are staring down a worsening labour shortage. Every year, skilled tradespeople retire, and not enough young workers are entering the field, according to the latest figures from BuildForce.

This country urgently needs to invest in skills training, take action to scale apprenticeships, and work with us to destigmatize careers in the trades. We need government to modernize recognition of foreign credentials to ensure that new Canadians don't face barriers to entry and reform immigration streams so that they better align with Canada's infrastructure needs. Without an adequate workforce, even the most ambitious construction agenda will stall.

What procurement models will we use? How we organize and execute major projects matters almost as much as which projects we pick. The current, outdated approach—where government designs, then contracts out to the lowest bidder—often leads to adversarial relationships, added unforeseen costs to taxpayers, and delays. To encourage innovation and long-term thinking, we need procurement that emphasizes value over price, encourages collaboration, and shares risks with private partners. Collaborative delivery models can align incentives more closely.

How do we properly share risk and plan effectively? Even a modern delivery model will struggle under unpredictable regulation, shifting funding, or fragmented jurisdictional timelines. We must remove barriers and create as much predictability as possible. Canada needs the promised comprehensive national infrastructure assessment to move forward quickly. And infrastructure plans must take the long view, planning for a 25-year horizon, not an electoral cycle.

Procurement reform, regulatory alignment, and predictable, long-term funding will reduce risk. But success depends on continuous dialogue with those on the ground—builders, contractors, municipalities, trade associations—so that policies reflect reality, not theory.

We're ready—if you call us.

We are the ones on the front line of building Canada: housing infrastructure, roads, transit, energy, ports, defence infrastructure. We know where the potholes and bottlenecks are. We know which permit rules are outdated, which procurement clauses hurt innovation, and which workforce gaps threaten delivery.

On Nov. 18, more than 100 construction leaders from across Canada are coming to Parliament Hill. We'll be there with a simple message: you've got big plans, and we're ready to help you build them. But let's be clear: government can't do this on its own. Don't leave the people who pour the concrete, run the cranes, and keep the lights on out of the conversation. Talk to us. Work with us. Build with us. That's how we turn promises into projects, and projects into real communities.

If Ottawa's vision is to usher in a new era of infrastructure delivery, then the industry must be at the table from Day 1. We can help you get this done—and get it done right.

Because building Canada isn't just about breaking ground. It's about laying a foundation that lasts.

Rodrigue Gilbert is the president of the Canadian Construction Association, which is the national voice for the construction industry in Canada, representing more than 18,000 member firms in an integrated structure of 57 local and provincial construction associations.

The Hill Times

Prime Minister Mark Carney. Policymakers must resist the temptation of short-term cost savings and instead see infrastructure as a generational investment in resilience, sustainability, and social justice, writes Jeff Rankin. *The Hill Times photograph by Andrew Meade*

Building Canada's infrastructure for resilience and sustainable development

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care, they risk deepening divides rather than bridging them.

This requires a shift in mindset. We must deliver infrastructure that consumes fewer materials, less energy, and less water across its life cycle, while incorporating green infrastructure solutions. We must also measure success not only in terms of efficiencies, but also in terms of who benefits and who might be negatively impacted.

Canada's engineering ecosystem—our codes, standards and practices—is recognized worldwide as a leader in sustainable and resilient practices. Our practitioners, researchers, and professional organizations are advancing knowledge and solutions that others look to replicate or adopt. From designing climate-resilient communities to integrating natural systems into the built environment, Canadian civil engineers are shaping the global conversation about how to renew and adapt infrastructure in ways that advance both sustainability and equity. This leadership is a strength we must push further, not take for granted. As one practical example, the Envision sustainability and resilience framework offers an approach and measurable criteria to align projects with community values across planning, design, construction, and operations.

Leadership also means resisting the pressures that can distort priorities. Recent reflections by a Canadian Nobel laureate in another field warn against allowing corporate gains to dominate agendas at the expense of public good. The same caution applies to infrastructure planning: public policy must guide investment in infrastructure and align with long-term national interests, and keep equity, sustainability, and resilience of its peoples at the centre of every decision.

This month, the civil engineering societies of Canada, the United Kingdon, and the United States are jointly issuing a Declaration on Resilience and Sustainability in Infrastructure. The root of this declaration is the recognition that conventional incremental responses are no longer sufficient. With infrastructure renewal already underway, we have a once-in-a-generation opportunity to rebuild smarter, safer and fairer. Yes, now is the moment for Building Canada Strong: investing not only in durable solutions, but also in equitable communities, sustainable systems, and shared prosperity. Policymakers must resist the temptation of short-term cost savings and instead see infrastructure as a generational investment in resilience, sustainability, and social justice.

Infrastructure is not only concrete, steel, and wood. It is about people, places, and possibilities. The choices we are making today will determine whether future generations inherit outcomes that empower them or burden them. If we choose wisely, the legacy will not be measured by the projects completed but by the opportunities created.

Jeff Rankin is the president of the Canadian Society for Civil Engineering, a professor of civil engineering and research chair at the University of New Brunswick, and the executive director of the Off-site Construction Research Centre. Rankin's practical experience has included various project and construction management roles in many types of construction projects including high-rise buildings and larger infrastructure projects such as the Confederation Bridge.

The Hill Times

Do Canadians need new houses, or new homes?

Housing and Infrastructure Minister Gregor Robertson. The Build Canada Homes funding is a start, but it's a question whether the government has considered all of the costs to connect millions of new houses, write David Watters, Ryan Deschamps, and Rahim Rezaie. *The Hill Times photograph by Andrew Meade*

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new units could house as many as 13 million people by 2035. As a result, all of these occupants—wherever they're located across Canada—will need their houses connected to accessible and affordable local community infrastructure and services like transportation and energy grids, hospitals, schools, employment, food and retail stores, telecommunications systems, water and sewer utilities, recreation facilities, and other services including, police, fire, ambulance services, and garbage collection. Just promising more housing units does not go far enough.

As a result, the federal plan to build a "modern housing industry" to increase the number of countable housing units is clearly a key first step. But houses are for people, and people need access to essential and affordable local services for any new house to truly become an affordable home. So, where are the plans to assess the adequacy of the critical infrastructure and local service capacity in these communities in order to serve the needs of 13 million new occupants? We found no evidence of such an undertaking in the federal housing initiative.

Is it comprehensively funded?

While the $13-billion in new funding for Build Canada Homes is a start, to be truly affordable we question whether the government has considered all of the costs to connect these millions of new houses. For example, the Federation of Canadian Municipalities has estimated the cost to connect each house to municipal services will be about $107,000. (They identify nine categories of connecting infrastructure, including roads, bridges, public transit, recreation, water and wastewater, etc.) For the projected supply of 4.8 million new homes by 2035 to achieve affordability levels, this means a new cost of $513-billion for these community services. Who will pay for these? Can municipalities—with their limited tax base—afford this? Will municipal taxes increase for citizens?

In conclusion, to achieve affordable housing, we need to move beyond means to ends. We should not focus narrowly on just creating a new "housing industry" to supply units (things). We should embrace a broader public vision that supports Canadian families accessing affordable homes integrated into local community infrastructure and services. It is only then that a house becomes a home. In short, let's shift our national aspiration from building houses to building communities for citizens to prosper.

Perhaps the writer Ralph Waldo Emerson said it best, "A house is made of walls and beams; a home is built with love and dreams." Which path will Canada choose?

David Watters is a former assistant deputy minister for economic development and corporate finance in the Department of Finance, the founder and former CEO of the Global Advantage Consulting Group, and the founder and current president of the not-for-profit Institute for Collaborative Innovation.

Ryan Deschamps is a professor of computer science at Conestoga College, and co-ordinator of the Bachelor of Data Analytics program. For the past three years, he has conducted funded research on the social and financial implications of housing in Canada.

Rahim Rezaie is the executive director of ICI Canada, and a multidisciplinary expert in technology innovation, science and innovation policy, sustainable industrial strategy, and international development.

The Hill Times