Who can address Canada’s infrastructure needs?

The federal government’s ‘peace, order, and good government’ emergency powers need to be invoked because surely the current infrastructure deficit, combined with the climate crisis, qualifies as an emergency.

Mariana Valverde
Opinion

Serious policy discussions about Canada’s housing needs are happening at all levels of government and in virtually all municipalities, not just big cities. Somehow, we need to facilitate any type of new housing, a position that favours developers of the current formula: an unrepresentative: suburban single-family detached homes, and, in urban centres, tall buildings of tiny condo units. Others, like Toronto’s new Mayor Olivia Chow, put the emphasis on affordable housing rather than trusting that the private sector will provide not only for people currently in Canada, but also for the hundreds of thousands of newcomers that federal immigration plans envisage.

But housing is not the only infrastructure needed. Downtown Toronto is dotted with numerous billboards warning potential new residents that there may not be schools for their children nearby. Similarly, mayors in suburban and rural municipalities in Ontario’s Greenbelt have said that even if Premier Doug Ford’s government changes the rules of the game to allow housing in protected land, housing cannot be built in many of those parcels because there is no plan to extend to those areas municipal sewer, water, roads, and electricity.

Like many other countries today, Canada faces a serious infrastructure deficit. One cannot easily quantify that deficit in large part because there is no consensus about the technical standards needed to survive the climate disasters that have already caused havoc, and that will only get worse. But pothole-ridden roads and streets are a problem, where not to mention homes built on flood plains, as well as dams that can withstand 19th-century weather events, but not those of the 21st century. And there’s then the vast network of what is called “the welfare state” and now goes by “social infrastructure”: the networks of parks, schools, community centres, daycares, and all the “social” goods and services that are as necessary as housing.

Who should and could address this infrastructure crisis? The key problem is experts tell us that more than 60 per cent of Canada’s current infrastructure is municipal. The federal government can pull a few levers to make the building of affordable housing easier, as they did in the days when the Canada Mortgage and Housing Corporation facilitated the building of urban housing co-operatives. But the federal government owns very little infrastructure. Even major airports and ports are run by arm’s-length public corporations that make their own decisions. It is difficult to find federally owned infrastructure in Canada—perhaps not as much as the Rideau Canal and the Trent Canal, which cannot be downloaded because their federal status is written into the 1867 BNA Act.

The provinces own and control much infrastructure: most of the roads and highways, several large electricity provenders, and most of what has come to be known as “social infrastructure.” Plus some transit systems, though most transit is the responsibility of cash-strapped municipalities, which is why it’s more expensive and less efficient than in other countries. In Ontario, the province worsened an already bad situation by cutting the development charges that municipalities need to build parks, schools, and other essential amenities.

If Canada cannot overcome the jurisdictional obstacles that lie in the way of providing both housing and other necessary infrastructure, a dire future awaits. Newcomers, who generally choose big cities as landing spots, may only drive up residential rents and real estate prices. Thousands of international students may be forced to live in illegal basement conversions for years, which, on top of being very low-quality, will also drive real estate and commercial prices, will only embitter future citizens.

What is to be done? Only strong (Robert Bourassa) or weak (the United States “New Deal” of the 1930s and 1940s can save us. Federal governments have chipped in billions of dollars for infrastructure projects chosen by municipal or provincial authorities (and/or the private sector). That is a derecification of duty. The “peace, order, and good government” emergency powers that are exclusive to the feds need to be invoked. They were invoked in 1940 to justify creating federal Unemployment Insurance, because Depression-era unemployment was an emergency. Surely the current infrastructure deficit, combined with the climate crisis, qualifies as an emergency. Premiers will grumble, but only Ottawa can implement a Green New Deal.

Mariana Valverde is a professor emeritus at the University of Toronto. Her latest book is Infrastructure: New Trajectories in Law and Design (2022).

The Hill Times

Setting net-zero goals is one thing, delivering on them is another

A Concordia University project will offer a blueprint for cities elsewhere in Canada and around the world to develop and test scalable decarbonization solutions that meet their own local targets.

Graham Carr
Opinion

Soon I’ll be going to work every day in a laboratory of activity. As a historian by training and a long-time university leader, you might think I’d be nervous about this change, but I couldn’t be more excited. Let me explain.

This past April, Concordia University launched PLAN/NET ZERØ, an ambitious project to tackle our main source of carbon emissions: our two campuses. To encourage multi-sector stakeholders to work together, we’ll transform our campuses into open “living labs” focused on achieving net-zero emissions.

As a first step, we issued a request for proposals for a deep retrofit of one of our main buildings in downtown Montreal. Working with industry collaborators, Concordia will overhaul its systems to reduce energy consumption, measure energy efficiency, and cut greenhouse gas emissions.

Although my downtown office happens to be in this building, we’re beginning here because it’s a microcosm of campus activities. Connected to the Metro, the building combines offices, classrooms, student services, restaurants, and retail spaces. This mixed use and physical integration into the city’s core make it an ideal testbed from which we, and others, can learn.

PLAN/NET ZERØ is Concordia’s first giant step toward achieving carbon neutrality by 2040. Because of its unique scale, the project will also offer a blueprint for cities elsewhere in Canada and around the world to develop and test scalable decarbonization solutions that meet their own local targets.

Getting net-zero goals is one thing; delivering on them is another. Perhaps the biggest infrastructure challenge to achieving decarbonization is getting a handle on how to retrofit the massive, decades-old existing buildings in every city and community in the country. For example, it’s estimated 70 per cent of buildings standing today will still be in use as of 2050. This statistic underscores that much of our collective decarbonization effort is needed in existing buildings, not just new construction.

It’s here that the scale of PLAN/NET ZERØ becomes critical. Servings tens of thousands of students, faculty, staff, and visitors each day, Concordia’s building infrastructure supports a huge range of activities: academic, administrative, sports, research, performance, and much more. Our campuses—one in the heart of downtown and the other in a residential neighbourhood—are home to buildings from almost every period of Montreal’s architectural history over the last 150 years.

Our goal is to work with partners to design and implement a comprehensive strategy that will maximize savings and resilience. By integrating the energy grids of each campus—which will be a major accomplishment in itself—we can reduce consumption, store surplus power, and then channel energy into heating neighbouring grids at peak times.

With world-class research expertise in electrification, net-zero energy building design, and smart, resilient cities, Concordia and our partners are well positioned to deliver a decarbonization project of this magnitude. Last April, the Government of Canada supercharged sustainability research at Concordia with a $123-million grant from the Canada First Research Excellence Fund to lead a seven-year project on Electrifying Society—a $3 incubator to seed startups in our business school and District Energy Systems for years, which, on top of everything else, will unwittingly drive up the cost of living for current students and their families.

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We believe PLAN/NET ZERØ has unique potential, and not just in terms of engineering or technological innovation. It’s also an opportunity for financial institutions to collaborate with our business school and District 3 incubator to seed startups in the green-tech sector, as well as to create baselines for evaluating risk and structuring funding for the major green-energy projects that are destined to become the new normal.

Getting to a new normal won’t be easy. We must recognize that it means fostering social acceptance of changes, both in terms of adopting novel technologies and new patterns of energy consumption. Municipal governments—indeed, all levels of government—need to develop evidence-informed policies to incentivize and support the green revolution.

Very soon, I hope to be co-writing op-eds with some of our partners from inside one of PLAN/NET ZERØ’s living labs.

More importantly, as a university leader and believer in higher education, I hope the experiments that Concordia is leading now will be a major contribution to one of the greatest challenges of our time, including through innovative programs geared to sustainability and tomorrow’s needs.

And let’s hope that, one day, all Canadians can enjoy going to work in intelligent buildings designed to mitigate climate change in mind.

Graham Carr is president and vice-chancellor of Concordia University in Montreal.

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