HELP CITIES LEAD

Briefing Note: Regulating GHG Emissions for New Buildings

December 2020

Purpose

This note aims to update the provincial government on the benefits of, and support for, new regulation that would target greenhouse gas (GHG) emissions from new buildings – a policy measure we are pleased to note was included in the November 2020 Mandate Letter to the the Attorney General and the Minister Responsible for Housing.

Background

Approximately one third of the buildings standing in British Columbia in 2050 will be built in the coming 30 years. Many of these buildings will burn natural gas to supply their occupants with heat and hot water. Other than the City of Vancouver, British Columbia local governments presently have no way to require new buildings to use low-carbon energy systems.

- Many local governments would like the province to set minimum allowable GHG emissions performance requirements for new buildings.
- The set of recommendations advanced by the UBCM Special Committee on Climate Action includes a provision to add a carbon metric to the Energy Step Code.
- As envisioned, these requirements would grow more stringent year over year until 2032, when they would culminate in a near zero GHG emissions standard.
- Recent modelling by Integral Group suggests that the province will not achieve its 2030 climate target unless it directly embeds GHG emissions requirements in the British Columbia Building Code.
- Local governments cannot use the BC Energy Step Code to regulate GHG emissions from new buildings.
- The November 2020 Mandate Letter to the Attorney General and the Minister Responsible for Housing includes direction for the Minister to support local governments to set their own carbon pollution performance standards for new buildings.

Jurisdictional Scan

As noted above, with the exception of the City of Vancouver, British Columbia Local Governments cannot directly limit greenhouse gas emissions from new buildings.

- The City of Toronto's Zero Emission Building Framework requires owners of new buildings to demonstrate compliance with the Framework's minimum greenhouse

gas intensity performance standard. This requirement is in addition to minimum energy performance standards.

- Toronto's Framework includes a full set of targets and requires increasing levels of performance over time. The city developed four performance tiers to take the industry from today's construction practices to near-zero emissions performance by 2030.
- Toronto's pathway to near-zero emissions building construction is helping the city meet its 2050 GHG targets; it provides the building industry with a clear and transparent picture of upcoming requirements.
- The City of Vancouver currently regulates minimum GHG performance requirements for a wide range of building types, including single family homes, townhomes, low- and high-rise multi-unit residential buildings, commercial buildings, and offices.
- Like its energy performance standards, Vancouver has established a GHG performance metric: kilograms of carbon dioxide equivalent emissions per square meter per year (kgCO2e/m2/y) for larger buildings and an absolute emissions cap for homes. The city easily checks and verifies the GHG requirement using the same procedures that it uses to regulate energy performance.
- By 2025, Vancouver intends to impose a zero-emissions building standard for new homes and buildings.
- In July 2019, the City of Berkeley became the first U.S. city to adopt an ordinance to prohibit natural gas service connections in new buildings. One year later, at least 40 cities in California have adopted one form or another of a "no or almost no" gas mandate for new construction.[1] [2]
- A diverse coalition of utilities, industry associations, and NGOs is currently underway in California to include an all-electric requirement in Title 24, the state's updated building code for new homes.

British Columbia – Current State

The British Columbia Building Act does not allow local governments to establish technical building requirements beyond those cited in the British Columbia Building Code unless they are listed as an "unrestricted matter" under Section 5 (4) of the Building Act General Regulation. Examples of unrestricted matters include dedicated parking stalls for persons with disabilities, provisions for fire vehicle access, and district energy systems.

- In 2017, the province created the BC Energy Step Code by adding Article 9.36.6 and 10.2.3 of Division B to the unrestricted matters list. The regulation empowers local governments to establish minimum energy efficiency performance standards in new construction. However, it does not allow them to establish minimum GHG emissions standards.

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[1] California Building Decarbonization Coalition. "Active Local Government Efforts." Retrieved from: http://buildingdecarb.org/active-code-efforts.html

[2] McCoy, C. "The Legal Dynamics of Local Limits on Natural Gas Use in Buildings." Harvard Law School. June 2020. Retrieved from: http://eelp.law.harvard.edu/wp-content/uploads/The-Legal-Dynamics-of-Local-Limits-on-Natural-Gas-Use-in-Buildings.pdf

- In short, local governments may use the British Columbia Building Code to regulate the energy performance of new buildings, but it falls short of helping them reach their community climate objectives.
- A 2019 Integral Group study commissioned by the Ministry of Municipal Affairs and Housing concluded that even a very efficient building built to the Upper Steps of the BC Energy Step Code could emit "significant" emissions over its lifetime.[3] The regulation does not, in other words, guarantee the GHG reductions necessary to drive emissions to zero or near-zero levels.
- Recent Integral Group modeling suggests it will be very challenging for the province to achieve its climate targets unless it either introduces legislative changes permitting local governments to establish their own technical building requirements for GHG emissions, or directly embeds such requirements in the British Columbia Building Code.
- Without a direct path to regulating GHG emissions attributed to new buildings, a number of British Columbia local governments have begun developing creative "workarounds."
- Some communities now allow developers and builders to build to a lower step of the BC Energy Step Code than the base requirement referenced in their building bylaws so long as proponents commit to using a low carbon energy system, such as a heat pump, in their project.
- At least one other local government is exploring the use of density bonusing to incent the construction of low-carbon buildings; another is using Development Permit Area Guidelines.
- These local governments are working independently and establishing their own definitions of "low-carbon building" and/or "low carbon energy system." In short, the lack of a provincial standard has led to inconsistency in the marketplace.
- The set of recommendations advanced by the UBCM Special Committee on Climate Action includes a provision to add a carbon metric to the Energy Step Code.
- The Attorney General and Minister of Responsible for Housing was issued a Mandate Letter in November 2020 that includes direction for the Minister to support local governments to set their own carbon pollution performance standards for new buildings.

Next Steps

Potential next steps for government include the following actions:

- Work with the Energy Step Code Council to establish a GHG performance standard for new buildings by no later than July 2021.
- Amend the BC Building General Regulation to enable local governments to regulate GHG emissions of new buildings by no later than January 2022.
- Consider establishing GHG standards for new construction under the BC Energy Step Code—a move that would minimize administrative burdens. If choosing this

[3] Integral Group. "Implications of the BC Energy Step code on GHG Emissions." June 2019. Retrieved from: http://energystepcode.ca/app/uploads/sites/257/2019/11/BC-Step-Code-GHGI-Report_Nov-2019.pdf

option, government should establish and support an Energy Step Code Council subcommittee to review options and propose a preferred approach.

- Work closely with leading local governments and other key partners to ensure local building sectors across the province have the skills and capacity required to meet GHG performance standards for new construction.