



Clean Air Council Submission to the Public Review on Proposed Changes to the National Model Energy Code for Buildings and the National Building Code

To the National Research Council of Canada,

The National Model Energy Code for Buildings and the National Building Code (NECB or ‘the model codes’) are critical for Canada to achieve its GHG reduction targets, and to advance the building sector’s ability to provide energy efficient, low carbon and climate resilient buildings.

The Clean Air Council (CAC)¹ is supportive of the proposed changes to the NECB. The CAC is a network of 30 municipalities and health units from across the Greater Toronto, Hamilton, and Southern Ontario Area. CAC members work collaboratively on the development and implementation of clean air and climate change mitigation and adaptation actions. More information on the Clean Air Council is available [here](#).

The CAC is very supportive of the model code’s tiered approach. This approach provides a pathway for the building sector to achieve net zero targets, and has been used by the Province of British Columbia, the City of Vancouver, and the City of Toronto.

The CAC however, does recommend that the tiered pathways developed for NBC2020 and NEBC2017 should be modified to include explicit greenhouse gas intensity (GHGI) metrics in order to better align code outcomes with the objectives of the Pan Canadian Framework on Clean Growth and Climate Change. After the federal government and over 450 Canadian municipalities have declared a state of emergency, it is incumbent on the NRC to provide a regulatory framework that enables municipalities and other authorities having jurisdiction to drive new construction towards near zero carbon as soon as possible. We understand that there is a significant amount of variability re: GHG implications associated with building energy use across Canada’s Provinces and Territories, but the lack of focus on GHG metrics within the NBC and NECB presents a significant missed opportunity to advance the Pan-Canadian Framework on Clean Growth and Climate Change.

¹ Municipal staff representatives on the Clean Air Council (CAC) were consulted in the preparation of this submission to reflect the feedback of member municipalities but direct endorsement of this submission by municipal councils was not sought due to time constraints. CAC representatives are the municipal change agents within leading climate action municipalities and have been working collaboratively across the region for the last 15 years to support and enable progress on clean air and climate change actions. The consultation undertaken were facilitated and are endorsed by the Clean Air Partnership, a charitable environmental organization that serves as the secretariat for the Clean Air Council.

The CAC is very supportive of the introduction of air tightness testing. However, we would like to seek clarification on why there are no reporting requirements for the results of the air tightness tests.

To achieve the intended outcomes of the model codes, it is recommended that a mechanism is created for energy, emissions, water and waste reporting and disclosure. This would provide a method for tracking and reporting, and increase the availability of data to be used for benchmarking. As a result, this could ensure continuous improvements in efficiency and emissions reduction goals.

In addition, in order to ensure uptake of the model codes we recommend the following actions:

1. The development of a voluntary roadmap to guide regulatory and market progress, encourage market maturity and signal industry of the direction of the model codes. Establishment of recommended timelines and implementation issues between now and 2030 will enable provinces and territories (and municipalities) to adopt and implement the progressive tiers of the model codes by 2030 and ensure Canada achieves its carbon emissions reduction commitment and stated net-zero emissions goals.
2. Support implementation of the tiered Code through education and capacity building in areas such as airtightness testing, building envelope design and building science.
3. Support the industry in adopting the requirements of the Code through education, training, and other cost-reduction strategies. Builders would welcome the opportunity to increase their knowledge through resources such as “Best Practices” guide. This approach is supported by experiences in British Columbia, where much of the success of the [BC Energy Step Code](#) can be attributed to supports provided by the [BC Energy Step Code Council](#), as well as training and peer support networks, plain-language communications materials, and strategies for cost reductions that include training programs, incentives, builders’ guides, and pragmatic costing guidelines for various tiers of the Code.
4. Take steps to ensure the move from a prescriptive approach to a performance-based approach. This would provide the industry with increased flexibility and opportunity for innovative building design. As a result, the industry will be better positioned to achieve net zero targets, and this will also improve consistency in energy and environmental outcomes.

In order for implementation to occur at the provincial level, there are important actions that the Province of Ontario must take. Thus, we would like to make the following additional recommendations:

- The Province of Ontario should adopt the changes to the National Code in order to ensure consistency across the country.
- The Province of Ontario should adopt the highest possible energy efficiency requirements offered by the model code, with consideration for the local market’s

ability to meet this requirement. The Province should ensure that energy efficiency requirements at a minimum meet current Ontario Building Code requirements given the market's current ability to meet these requirements.

- If the National Model Code does not integrate a GHG metric into its stepped code that the Province of Ontario should then refine the energy metric to instead measure GHG emissions, in order to ensure alignment with energy efficiency and GHG reduction targets.
- If the Province of Ontario fails to replace the energy metric with an emission metric, municipalities should have the authority to make this change, along with the ability to mandate standards that exceed the provincial level in order to drive market advancements at a smaller scale.
- It is recognized that when the Province sets mandatory standards within the Ontario Building Code it has to take a very large geographical area with varying markets and capacity into consideration. As such, the Province is required to set the Building Code at a level that can be achieved across that very large geographical area. By providing municipalities with the authority to mandate above the base requirements within the Ontario Building Code, Ontario municipalities can serve as living laboratories for energy efficiency, emissions reductions and climate change resilience innovation and thereby test and advance the market at a smaller scale. Successful adoption of standards at the municipal scale can then inform and be integrated into future updates to mandatory components of Ontario's Building Code thereby increasing capacity of the wider market more quickly and effectively across Ontario.

The Clean Air Council network would like to extend its support and gratitude for efforts and consideration taken in developing the proposed changes to the National Energy Code for Buildings and National Building Codes, and for the opportunity to provide input. We would welcome the opportunity to address any questions you may have regarding our recommendations, and would be happy to facilitate additional discussions on implementation issues and opportunities. Please do not hesitate to contact Gabriella Kalapos at gkalapos@cleanairpartnership.org or 416-948-7125.