

### Background

- Canada's buildings sector represents about a quarter of total final energy consumption, with heating and cooling representing 65% of the sector's energy consumption.<sup>1</sup>
  - Within Canada's major cities, buildings often represent the majority of energy use. For Calgary, this figure is 65%.<sup>2</sup>
  - High level guidance on improving buildings to effectively mitigate climate change can be found in the UN report 'Making Peace with Nature'.<sup>3</sup>
  - Buildings which adequately address climate change deliver other benefits such as construction quality, affordability, health benefits, indoor air quality, and comfort, enabling multiple goals to be achieved<sup>12</sup>
  - The City's current Sustainable Building policy allows the Project Sponsor to set minimal performance targets. Targets can be amended at any time and there is no requirement for third-party certification<sup>11</sup>
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### Focus

- Develop policies for new buildings to achieve four simple imperatives to mitigate climate change
  - *Maximize operating energy efficiency*
    - In order to switch to renewable energy sources, there is a need to increase operating efficiency.<sup>4</sup>
      - The international Passive House Standard, an open source, science based standard is the level of operating efficiency globally recognized as achievable and affordable in all climate zones.<sup>5,6</sup>
      - Performance benchmarking is required to deliver people and climate friendly buildings.
  - *Meet operating energy requirements from 100% clean sources*
  - *Minimize embodied carbon*
    - The energy consumed and emissions generated as a result of construction, refurbishment and end of life must be absolutely minimized through the establishment of embodied carbon targets that are low enough to require significant innovation in building design and construction.<sup>7</sup>
    - The City of Vancouver's Climate Emergency Action Plan directs staff to develop such targets.<sup>8</sup>
  - *Do the above three things as rapidly as possible*
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### Actions

- **Demonstrate leadership by amending the Sustainable Building Policy to require a net-zero target, make the process transparent, and require third-party certification.**
- Adopt the highest possible tiers of new building codes as they are enacted. Efficiency Canada has produced a resource for municipalities 'Codes4Climate: A building Code Advocates Toolkit'.<sup>9</sup>
- **Advocate for provincial and federal governments to deliver on commitments for effective building codes, programs, and policies.** This includes participating in the National Model Building Code development process, and then advocating to the provincial government for a quick uptake.
- Offer incentives and support to projects delivering the four focus imperatives, focusing resources on projects delivering the desired end state to act as exemplary projects stimulating demand.
- Utilize the opportunity provided by Public procurement to catalyze market transformation, develop local capacity, and lay a foundation for the implementation of future regulations in buildings.<sup>10</sup>
- Adopt/expand ambitious green building policies such as:
  - The highest levels of any stepped building code available
  - Home energy labelling and building benchmarking
  - CEIP financing
  - Re-zoning policies requiring climate and people friendly buildings
  - Retrofit codes
- Develop a communications strategy/plan to improve public literacy of these issues, support local developers offering such buildings on the market and enable residents to experience them.
- Build upon the policies Calgary has to limit sprawl and reduce emissions through land use.
- **Direct staff to develop embodied carbon targets.**

# Sources

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9. <https://codes4climate.encycanada.org/>
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<https://www.passivehousecanada.com/category/policy-series/>
11. UCS2021-0867 Proposed Sustainable Building Policy Amendments – Attachment 1
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