



# Zero Carbon in Canada

## Getting to Zero National Forum

April 2018

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# Canadian Context – Pan Canadian Framework



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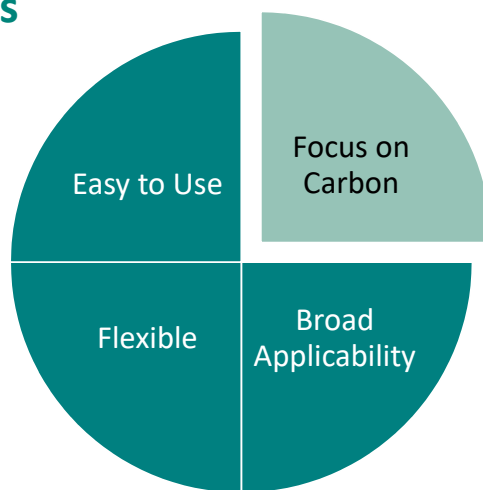
2

## A Period of 30 Years



- One or two mechanical system upgrades
  - One major retrofit of the building envelope
- Every new construction project, and every major renovation, should aim for zero carbon now.

## Key Objectives



## Eligible Building Types – New or Existing



Commercial	Institutional	Multi-Family
		

## Design and Performance Pathways



### ZCB-Design

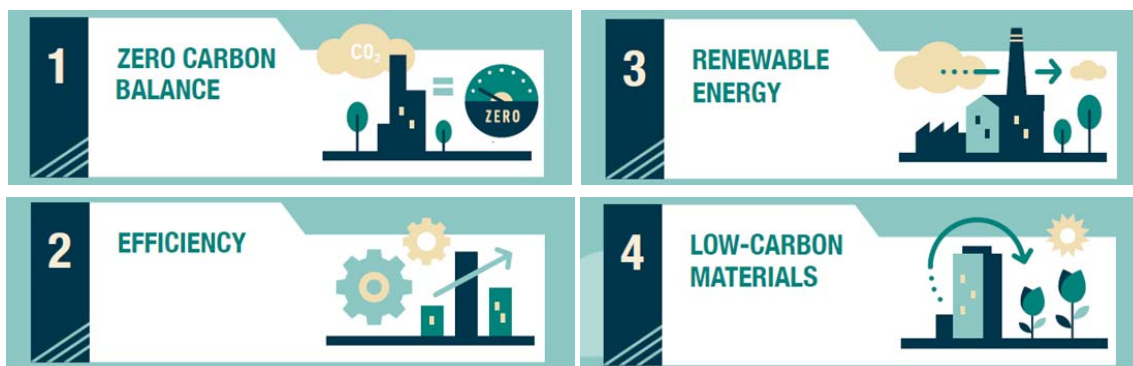
- Based on final design
- One time certification

### ZCB - Performance

- Based on 12 months of actual data
- Annual recertification



## Zero Carbon Building Components



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**ZERO CARBON / CARBONE ZERO**

**PILOT PROJECT**

- Collaboration
- Education
- Outreach
- Inform standard's development
- Inform development of tools and resources

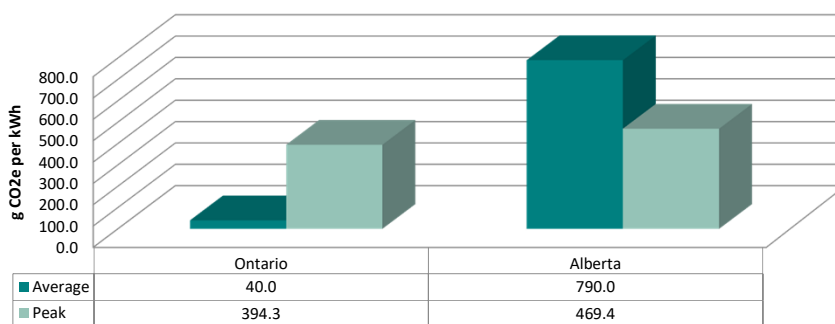
The map shows three carbon grid regions: High Carbon Grid (Western Canada), Moderate Carbon Grid (Central Canada), and Low Carbon Grid (Eastern Canada). Circled numbers 2 and 7 are placed on the map, corresponding to the components in the diagram above.

## Evolv1 Center for Sustainability Excellence



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## Emissions and Grid Interaction



Average - Canada's National Inventory Report 2017 Annex 13 Generation Intensity Factors  
 Peak - Energy Star Portfolio Manager GHG Emissions Technical Reference August 2017

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## Mohawk College – Joyce Center



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## The Grid of the Future



- 100% carbon free electricity on the main grid



QUEBEC

- Does net-zero energy even make sense here?



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# Curé-Paquin Elementary



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# Ecolock Self Storage



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# Thank You

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