

BIG MOVE 3

Big Move Three: Net-Zero New Construction

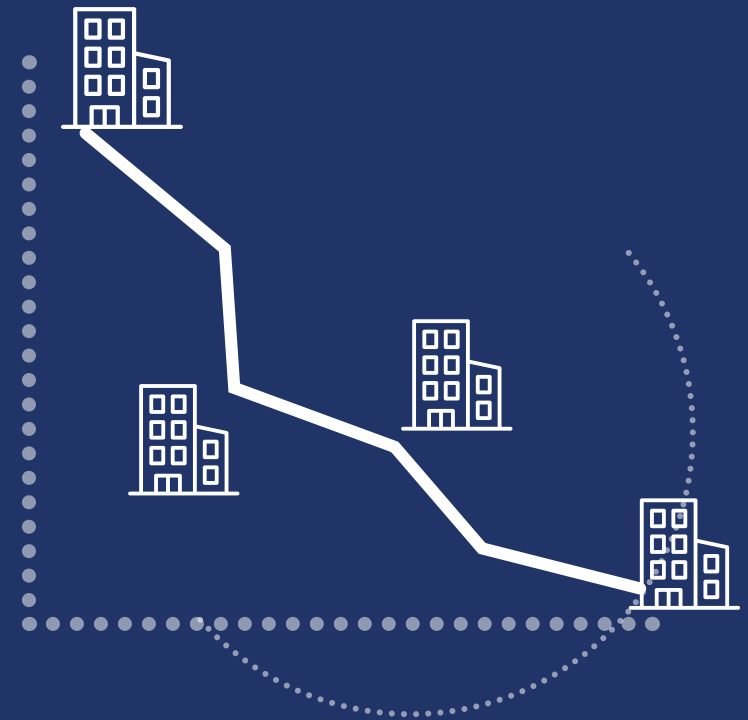
All provinces have agreed to adopt the Government of Canada's net-zero energy-ready building code for new residential builds by 2030. This makes planning for net-zero homes a necessity over the next decade, but there are also benefits to acting sooner. Regina is expected to grow significantly over the next decade, and encouraging net-zero new construction now means that fewer new buildings will be contributing to GHG emissions in the community, and fewer buildings will need to be retrofitted in the future. As buildings and building systems are long-lasting assets, choices made today will impact emissions in the community for decades to come and will either increase or decrease the burden on future generations. Increasing the proportion of net-zero builds over time can also prepare the workforce now for changes that will impact the whole industry by 2030. Other benefits include improved air quality as emissions decrease and lower utility bills associated with net-zero homes.

Net Zero Energy Ready (NZER) is a highly energy-efficient building that minimizes energy use such that on-site or community renewables or energy from a clean grid can be used to reach net-zero energy.

Net Zero Energy (NZE) is a building that uses an enhanced building envelope, solar orientation, and high-efficiency equipment to produce as much clean energy as it uses over the course of a year².





City in Action: Fire Station No. 4

The City of Regina Fire Station No.4 has received LEED Gold Certification. The project received 40 LEED points through its incorporation of a range of environmental initiatives including solar water heating, sun screens, and a glazed hose tower that doubles as a passive ventilation shaft to aid in cooling the building.






²What you need to know about the new building codes - Efficiency Canada.

Big Move Three: Net-Zero New Construction Actions

ACTION	GREENHOUSE GAS (GHG) IMPACT	CO-BENEFITS	COST	IMPLEMENTATION MECHANISMS	TIMING
3.1 All new residential construction is net-zero by 2030		Equity: Enabler Employment: Medium Cost Effectiveness: High		Policy: Create incentives for developers choosing net-zero buildings. Initiative: Create a net-zero neighbourhood. Program: Educate developers and builders on new building-code requirements and opportunities.	Start: Immediately Completion: 100% by 2030, ongoing after 2030
3.2 All new ICI buildings are built to National Energy Building Code		Equity: Enabler Employment: Medium Cost Effectiveness: High		Program: Net-zero commercial and industrial buildings. Program: Educate developers and builders on new building-code requirements and opportunities.	Start: Immediately Completion: Ongoing

GHG IMPACT

-  **Low:** <1,000 ktCO₂e
-  **Medium:** 1,000 – 2,000 ktCO₂e
-  **High:** >2,000 ktCO₂e






CO-BENEFITS

EQUITY –
Enabler: No discernible direct effect, but positive outcomes may occur in concert with other actions
Low: May favour certain groups or create greater disparity
Medium: More likely to be implemented fairly, but existing powerful groups may still be at an advantage
High: Contributes to enhanced equity

EMPLOYMENT –
Enabler: Enables employment
Low: 0 – 5 person years of employment per \$million invested
Medium: 5 – 10 person years of employment per \$million invested
High: >10 person years of employment per \$million invested

COST EFFECTIVENESS –
Low: This action will have a net cost
Medium: This action will break even
High: This action will have a net return/benefit.

COST

-  <\$1 million
-  \$1 million – \$100 million
-  \$100 million – \$500 million
-  \$500 million – \$1 billion
-  >\$1 billion