CATEGORY

BOLD CLIMATE ACTION NEEDED!

How we build/renovate.

Nearly 60% of carbon pollution created in Vancouver comes from burning natural gas, a fossil fuel, for heat and hot water in our buildings. Building materials like cement and steel also contribute to global emissions when they're manufactured.

CITY OF VANCOUVER | Vancouver Plan | GREENEST CITY | CLIMATE EMERGENCY

- Carbon pollution from building operations can be reduced by:
    1. Switching space heating and hot water equipment from natural gas to electricity; (Electricity in BC is mandated to be a minimum of 93% hydroelectric, or zero emissions)
    2. Switching from natural gas to renewable natural gas; and
    3. Reducing the amount of energy we waste in our buildings through better windows and insulation.
- Carbon pollution from the construction of buildings can be reduced by choosing lower carbon materials such as wood.

TARGET 1

x6 ACTION CARDS

TARGET 2

x3 ACTION CARDS

CATEGORY

HOW WE BUILD/RENOVATE

Target:

By 2025, all new and replacement heating and hot water systems will be zero emissions.

NEW BUILDINGS:

- The City of Vancouver is well on their way to requiring renewable energy for space and hot water heating in new construction. New buildings are more energy efficient, run on renewable energy more often, and have better indoor air quality than the same building built just 10 years ago.
- This has been good for our local green economy. Vancouver's local building industry has been stepping up to design and build zero emissions buildings. Much of the equipment for green buildings can also be sourced locally.

EXISTING BUILDINGS:

- Existing buildings are a bigger challenge because they weren't built with climate change in mind. As with new buildings, we need to transition from natural gas use by improving energy efficiency and switching to renewable energy.

How we heat our buildings and water matters!

Action:

Regulate Carbon Pollution From Existing Buildings

We plan to set carbon pollution limits for existing buildings. This means there will be a maximum amount of fossil fuels, such as natural gas, a building can use in its operations, including space heating and hot water.

Game Changer Action

What does this look like?

- In 2025, the limits will be modest and apply to the largest buildings.
- By 2030, the limits will extend to all buildings.
- Every 5 years the limits will decrease.

The limits, set by building type, will encourage owners and managers to create a plan to reduce carbon pollution that is coordinated with routine building maintenance, equipment replacement, and other planned upgrades.

BENEFITS

- **Individual health**
- **Green jobs**
- **Economic growth**
- **Resilience**

Action:

Provide Training For Zero Emissions Retrofits

Supporting Action

What does this look like?

- We plan to provide training and support tools to help building owners, trades, and suppliers evaluate and undertake zero emissions retrofits to reduce carbon pollution from buildings.
- We plan to work with industry associations, technical schools, and utilities to deliver training and support so that more zero carbon technologies can be installed and maintained.

BENEFITS

- **Green jobs**
- **Economic growth**
- **Equity**

Action:

Make Zero Emissions Retrofits Easier And Less Expensive

Supporting Action

What does this look like?

- We plan to work with building owners and managers, and key public sector partners to improve City regulations and processes to make it easier to switch to heat pumps and undertake other zero emissions retrofits.
- We plan to coordinate with the province and utilities to offer incentives that help pay for retrofit assessments and planning, and the installation of heat pumps and other zero emissions retrofits.

BENEFITS

- **Green jobs**
- **Economic growth**
- **Equity**

Action:

Collaborate With Utilities On Zero Emissions Energy

We plan to collaborate with public and private utilities to ensure that buildings in Vancouver have convenient, cost effective access to zero emissions energy sources.

Supporting Action

What does this look like?

This will include working with:

1. BC Hydro to meet increasing electricity needs.
2. FortisBC to transition to renewable sources of gas supply.
3. The operators of district energy systems to convert to renewable sources of energy.

BENEFITS

- **Resilience**

Action:

Transition The Neighbourhood Energy Utility To 100% Renewable Energy

Vancouver's Neighbourhood Energy Utility recovers waste heat from sewers to provide heat and hot water to buildings around South East False Creek.

Supporting Action

What does this look like?

- We plan to increase the amount of energy it uses from renewable sources from 70% to 100% by 2030.
- This would ensure it can deliver near-zero emissions energy to all the buildings it serves.

BENEFITS

- **Community health**
- **Resilience**

Action:

Expand Service Area For Vancouver's Neighbourhood Energy Utility Supply

Vancouver's Neighbourhood Energy Utility recovers waste heat from sewers to provide heat and hot water to buildings around South East False Creek.

Supporting Action

What does this look like?

- We plan to evaluate opportunities to expand the area it services.
- The areas we're considering include:
  - Central Broadway Corridor,
  - Jericho Lands and
  - False Creek South.

BENEFITS

- **Community health**
- **Resilience**

TARGET 2

HOW WE BUILD/RENOVATE

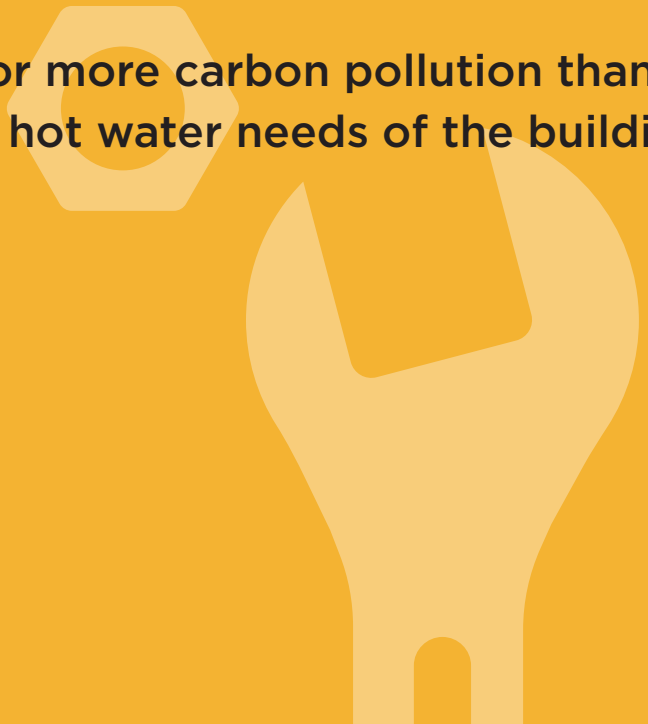
Target:

By 2030, the embodied emissions from new buildings and construction projects will be reduced by 40% compared to a 2018 baseline.

To respond to the climate crisis, we know we need to tackle carbon emissions from buildings – including how we build them.

- Extracting, manufacturing, and assembling materials such as concrete, steel, insulation, plastic, and glass results in carbon pollution (known as embodied carbon).
- Some ways to reduce embodied carbon from new building construction include:
    1. using low carbon concrete,
    2. decreasing the amount of parking, and
    3. using more natural materials such as mass timber, wood fiber, hemp and wool.
- The materials in buildings can be responsible for more carbon pollution than would be produced from meeting the heat and hot water needs of the building over its lifespan.

What we build with matters.



Action:

Require New Buildings To Use Low Carbon Materials

Game Changer Action

What does this look like?

- We plan to set rules requiring new buildings to be built using low carbon materials.
- These requirements will apply to both private and public developments.
- They'll require developers to demonstrate how their materials and construction practices are lowering carbon pollution.

BENEFITS

- **Community health**
- **Green jobs**
- **Economic growth**
- **Resilience**

Action:

Make It Easier And Less Expensive To Use Lower Carbon Materials In New Buildings

Supporting Action

What does this look like?

- We plan to identify and remove barriers where our existing rules make it difficult to use low carbon construction materials and practices in new buildings.
- We are also planning incentives to support developers interested in trying out lower carbon materials and construction practices.

BENEFITS

- **Community health**
- **Green jobs**
- **Economic growth**
- **Resilience**

Action:

Support The People Using Low Carbon Materials In New Buildings

We plan to help build a thriving community that cares, and is knowledgeable, about low carbon construction materials and practices in new buildings.

Supporting Action

What does this look like?

The community will consist of:

- designers,
- builders,
- life-cycle analysis experts,
- developers,
- academics and
- governments.

BENEFITS

- **Economic growth**
- **Resilience**