

Heating and Cooling Systems



Indigenous Wisdom

"Camps were set to make the best of all the natural forces to ensure good water, coolness in the day, warmth at night and protection from the wind. You don't fight against nature, you harness it."

— Aline LaFlamme, Métis Elder



Background

Heating and cooling systems are used to either warm or cool places that individuals live and work in.



- In Canada, houses and buildings contribute to over 12% of national carbon emissions. A majority of these emissions come from heating and cooling systems, for example furnaces and air conditioners.
- Globally, dependence on indoor heating and cooling systems is expected to rise, partially due to unpredictable and harsher weather patterns caused by the **climate crisis**.

Heating and cooling systems are powered by energy sources and natural resources such as wood, water (hydropower), natural gas, oil, and coal.

Heating and Cooling Systems & the Climate Crisis

Globally, **fossil fuels** are mainly used for heating and cooling systems in houses and buildings, such as natural gas, oil and coal. **Fossil fuels** are actively contributing to a large proportion of global carbon emissions, and are the leading cause of the **climate crisis**.

- In 2014, 90.5% of global energy sources for commercial and residential heating and cooling systems were from **fossil fuels**.



Policies to Make Heating and Cooling Systems in Houses Sustainable

At a systemic level, there are several steps governments can enact to make houses and workplaces more sustainable. For example:

- Governments can **subsidize** or reduce costs of greener technology that helps reduce energy consumption in newer houses. This helps make the process of obtaining more energy-efficient houses accessible for all people.
- Governments can also make intentional investments in the development of renewable energy resources that can replace natural gas and other **fossil fuels** to heat houses.



However, these suggested changes are often very costly and not readily implemented, because governments tend not to see immediate benefit from making these changes.

Glossary

Fossil fuels. It is a substance formed from the decomposition of ancient plants and animals over millions of years. It is the most commonly used energy source. Examples include oil, coal and natural gas.

Climate crisis. It describes the urgent situation of human caused climate change, caused by greenhouse gas emissions from human activity.

Subsidies. A subsidy is an amount of money given directly to businesses or corporations by governments to reduce the cost of a product or service to consumers, therefore encouraging production and consumption.



Learn More and Take Action

Learn about steps you can take to reduce the use of **fossil fuel** energy sources at home:

- **Energy Sage's Guide to Save Energy** (<https://www.energysage.com/energy-efficiency/101/ways-to-save-energy/>)

Learn more about and support Indigenous-owned sustainable energy projects:

- **Indigenous Clean Energy Projects** (<https://indigenouscleanenergy.com/ice-projects/>)
- **W Dusk Energy Group** (<https://wduskgroup.com/>)



Follow, support, and volunteer at Canadian organizations that are promoting sustainable homes:

- **Sustainable Housing Foundation** (<https://sustainablehousingfoundation.org/>)
- **Reep Green Solutions** (<https://reepgreen.ca/>)
- **BC Sustainable Energy Association** (<https://www.bcsea.org/>)



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