



A Resident's Guide to Heat Pumps

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A Resident's Guide to Heat Pumps

Who is this guide for?

This guide is for property owners, landlords, housing providers, and condominium decision-makers in Stratford who are considering heat pump options for residential buildings. It helps to compare heat pump options for different housing types. It explains what heat pumps do, and what to consider before installation.

What is a heat pump?

A heat pump is an electrically driven system that moves heat from one place to another. It takes heat from a lower-temperature area, known as the **source**, and transfers it to a higher-temperature area, known as the **sink**.

How it works in a home

Instead of creating heat by burning fuel, a heat pump transfers existing heat. In winter, it moves heat into the home. In summer, it reverses the process to provide cooling. Natural Resources Canada (NRCan) notes that heat pumps use less energy than traditional equipment to heat and cool your home.



Main types of heat pumps

Air-source heat pumps (ASHP)

These move heat between a building and the outdoor air. In heating mode, they extract heat from outside air and move it indoors; in cooling mode, they reverse the process.

Natural Resources Canada (NRCan) identifies air-source heat pumps as the most common heat pump type on the Canadian market. They can be ducted or ductless.

- Ducted air-source heat pumps connect to a forced-air duct system and function much like a central air conditioner that can also heat.
- Ductless air-source heat pumps are typically called mini-splits. They do not require ductwork and deliver heating/cooling through one or more indoor wall- or ceiling-mounted units.

Cold-climate air-source heat pumps (ccASHP)

A cold-climate air-source heat pump is a subtype of air-source heat pump designed for colder weather. NRCan states these systems are better adapted to Canada's climate and that some models can operate at temperatures well below freezing, down to about -30°C. Actual low-temperature performance, heating capacity, and backup-heating needs vary by model and home. They can be ducted or ductless.

Ground-source heat pumps (GSHP)

These exchange heat with the ground rather than outdoor air. They are also commonly called geothermal heat pumps. ENERGY STAR explains that they use a fluid pumped through underground pipe loops; NRCan uses the term ground-source heat pumps for systems using the earth and/or groundwater as the heat source.

Certain rules may be required before the installation of geothermal system such as permit applications. Installation may be more complicated or unfeasible for existing buildings because of this.

See [more details here](#).

Gas hybrid (ASHP with natural gas backup)

A gas hybrid heat pump system is a heating system that combines an air-source heat pump (ASHP) and a natural gas furnace or boiler as backup. A gas hybrid system is not an all-electric heat pump system. It is a dual-fuel system that uses electricity and natural gas.

Good to know

- Cold-climate air-source heat pumps are built for Canadian winters, and some models can operate down to about -30°C, though performance varies by model and other factors.

- Ducted systems are a good fit where a home already has effective ductwork because they can provide whole-home heating and cooling through one central system.
- Ductless mini-split or multi-split systems are useful where there are no ducts or where separate areas need individual temperature control.
- Apartment building guidance should focus on whole-building planning, tenant comfort, electrical capacity, and responsibility for energy bills.

Stratford and Ontario context

In Stratford, Festival Hydro is the local electricity utility for many residents. Ontario Energy Board pricing rules let eligible residential customers choose Time-of-Use, Ultra-Low Overnight, or Tiered electricity pricing. For homes that switch more heating load to electricity, the best rate plan will depend on when the home uses power.

The City of Stratford's Community Climate Action Plan identifies heat pumps as a low-carbon heating and cooling option, especially in areas not served by district energy.

Funding options

Some households heating with oil may still qualify for the federal Oil to Heat Pump Affordability Program, subject to current intake status and eligibility. Residents should confirm details, eligibility, and deadlines before signing a contract as programs change often.

Table 1 Probable funding options for heat pump installation

Program	Potential beneficiaries	What is available	Important notes
Home Renovation Savings	Eligible Ontario homeowners, including electrically heated and Enbridge-heated homes	Heat pump rebates and other home efficiency incentives	Delivered through Enbridge Gas and Save on Energy. Replaced the old Home Efficiency Rebate Plus pathway.
Oil to Heat Pump Affordability Program	Eligible lower- to median-income homeowners currently heating with oil	Up to \$10,000 or \$15,000 in grants and a one-time payment of \$250 depending on province or territory	Federal program is open. Rules vary by province or delivery model. Best fit for homes still using oil. Program deadlines

			• July 31, 2026: Last day to apply to the program • January 31, 2027: Deadline to upload all required documents • March 31, 2027: Program closes
Low-income bill support	Households needing bill help	Ontario Electricity Support Program and LEAP emergency support	These are not installation rebates, but they can help with utility affordability.

[Learn how to recognize energy scams \(Natural Resources Canada\)](#)

Guideline for Single-family Homes

Best fit for owners who control the whole heating system and want whole-home comfort, lower emissions, and summer cooling.

Likely choices

- Ducted cold-climate air-source heat pump (uses air as their source to provide heating) if the home already has good ductwork.
- Ductless multi-split system if the home has no ducts or has rooms that are hard to heat or cool.
- Ground-source heat pump where there is enough land, budget, and long-term ownership.

Guideline for Townhomes

Best fit for owners in attached homes who want efficient heating and cooling but may face space, noise, or shared-wall constraints.

Likely choices

- Cold-climate ductless mini-split or multi-split in homes without ducts.
- Ducted heat pump if the townhome already has workable ducting and enough interior space for equipment.
- Hybrid system in some gas-heated homes where the owner wants to keep a furnace for backup.

Guideline for Apartment Buildings

Best fit for owners, housing providers, and condo corporations planning building-wide heating and cooling upgrades or major equipment replacement.

Likely choices

- Central air-source heat pump systems for buildings with existing distribution systems that can be adapted.
- Suite-based ductless or packaged systems where separate control by unit is needed.
- Ground-source systems where site conditions, ownership horizon, and project scale support the capital cost.

How to think about payback

Simple payback depends on the existing heating fuel, the efficiency of the current system, the home's insulation level, cooling needs, installed cost, and any rebates or incentives that are available at the time of application. In Ontario, homes heated with oil or electric resistance heating often have a stronger financial case for heat pumps than homes replacing a newer high-efficiency gas furnace.

Additional practical notes

- Cold-climate heat pumps are designed to work in low outdoor temperatures, but performance still varies by model. Ask the contractor for the tested low-temperature performance for the exact unit they are proposing.
- Outdoor units need clearance from snow, ice, leaves, and drifting. Poor airflow can reduce performance and shorten equipment life.
- In apartment buildings, a suite-by-suite approach may not be practical unless the building's electrical system, ventilation, condensate drainage, maintenance access, ownership responsibilities, and implementation plan have all been reviewed.

Disclaimer

This handout is for general information only. It does not replace contractor advice, engineering review, building code review, or financial advice. Programs, rates, and product eligibility can change. Always verify current information using credible sources.

Helpful Links

- [An introduction to cold climate heat pumps](#)
- [Best Practices for Sizing Supplementary Heating Systems in Heat Pump Retrofits.](#)
- [What is the Oil to Heat Pump Affordability \(OHPA\) program?](#)

Sources

- AHRI Directory — <https://www.ahridirectory.org/>
- Canada Mortgage and Housing Corporation — <https://www.cmhc-schl.gc.ca/>
- City of Stratford — Community Climate Action Plan
— <https://www.stratford.ca/en/inside-city-hall/climate-change.aspx>
- Enbridge Gas / Home Renovation Savings
— <https://www.enbridgegas.com/residential/rebates-energy-conservation/home-renovation-savings>
- Festival Hydro — <https://www.festivalhydro.com/>
- Natural Resources Canada — Heat pump basics — <https://natural-resources.canada.ca/energy-efficiency/electric-heat-pumps/heat-pump-basics>
- Natural Resources Canada — Heating and cooling with a heat pump
— <https://natural-resources.canada.ca/energy-efficiency/homes/make-your-home-more-energy-efficient/keeping-the-heat/heat-pump-systems>
- Natural Resources Canada — Oil to Heat Pump Affordability Program
— <https://natural-resources.canada.ca/energy-efficiency/oil-to-heat-pump-affordability>
- Save on Energy — <https://saveonenergy.ca/For-Your-Home>

HEAT PUMPS: YEAR-ROUND COMFORT FOR CANADIAN HOMES

RELIABLE. EFFICIENT. ALL-SEASON COMFORT.
EVEN IN CANADIAN WINTERS



DID YOU KNOW?

HEAT PUMPS ARE USED IN 60% OF HOMES IN NORWAY – AND THEY WORK IN CANADIAN WINTERS TOO!

WHY HEAT PUMPS?



Heat pumps are the future of home heating and cooling

-  The most **sustainable** way to heat a home and reduce greenhouse gas emissions
-  Use the same **trusted technology** that keeps food safe in your freezer
-  **Proven in cold climates:** in Norway, 60% of homes use a heat pump for heating
-  **Safer:** no risk of gas leaks or carbon monoxide

There are different types of heat pumps

- Air-source heat pumps (ASHP):** Work by exchanging heat with outside air
- Cold climate air-source heat pumps (ccASHP):** Optimized to perform at low temperatures
- Ground-source heat pumps (GSHP):** Draw heat from the earth or water source



Matching Heat Pumps to Your Home

Your contractor can help you decide which heat pump option works best for your home.

Current system:	Recommended heat pump:
 Centrally ducted	Most heat pumps
 Radiators or boilers	Air- or ground-to-water systems
 Baseboard heating	Heat pump with a mini- or multi-split distribution system

Will I Need a Backup Heat Source?

All-electric heat pumps can efficiently heat most Canadian homes throughout the winter.

Many cold-climate models continue to operate efficiently with high output down to -25°C!

Many models include a built-in backup heater for extra warmth on the coldest days.

You can pair a smaller heat pump with a furnace, boiler, or other system that takes over heating below a set temperature. This may be a good option if:

- You own a newer furnace or boiler
- Your existing ductwork is undersized
- An all-electric cold-climate heat pump is outside your budget



Ask your contractor to use a **heat load calculation** to determine the right size for your heat pump

WHY HEAT PUMPS ARE A SMART UPGRADE

- Cozy, even heat makes your home **more comfortable**
- **One system** that heats in winter and cools in summer
- The **most energy efficient** way to heat and cool your home
- Can **lower bills** in homes with baseboard, propane or oil heating
- **Safer for your family** – no risk of carbon monoxide
- Helps Canada **cut climate pollution**, one home at a time
- A smart, **one-time upgrade** with a big, **lasting impact**



How Does Heating with a Heat Pump Compare to a Furnace?



- Delivers **steady, even warmth** instead of bursts of hot air



- Works best when **kept at a consistent temperature** – no need to lower the thermostat at night



- Provides both **heating and cooling** in one system



- Both **heat pumps and furnaces require electricity** to operate – neither will run during a power outage*



- **Lower gas bills** help offset added electricity costs



- Can be powered with **rooftop solar** for **greater energy independence**



“Instead of getting a new air conditioner, just upgrade to the heat pump, and you can use it most of the year.”

– Emma Cubitt,
Hamilton, ON

**A hybrid system with a furnace backup can more readily be powered by a generator during an outage.*



WHAT QUESTIONS SHOULD I ASK MY CONTRACTOR?

To make sure you get the right heat pump for your home, choose a contractor who takes the time to understand your needs and can confidently answer questions like these:

- ☐ Are you an HRAI registered Heat Pump Champion?
- ☐ Do you use heating load calculations to size the system?
- ☐ Will you assess my ductwork and air flow to size the system?
- ☐ Will my home need electrical or other upgrades?
- ☐ Where will the equipment be installed?
- ☐ What is the total installed cost, and will I be eligible for any incentives?
- ☐ For hybrid heat pumps, at what temperature will the system switch to backup heat?
- ☐ Will you show me how to maintain the system and program the thermostat?
- ☐ Tell me about your warranties, qualifications, experience and references.

 **Tip: It's a good idea to compare quotes from a few qualified installers to find the best fit for your home.**



Look for an HRAI Heat Pump Champion - contractors with certified training and proven experience to help you choose and install the right system. Visit the [HRAI Contractor Locator website](#) to check.



Learn More

[Canada's Home Electrification Toolkit](#) can help you electrify all aspects of your home, and avoid an electrical panel upgrade.

Presented by:

The Building Decarbonization Alliance is a non-partisan and cross-sector coalition working towards a future where electrified buildings are part of an affordable and resilient energy system that contributes to a prosperous, sustainable, and decarbonized Canada. [buildingdecarbonization.ca](#)

Plumbing+HVAC Magazine is Canada's largest and most qualified circulation to the mechanical trades with more than 25,000 readers. [plumbingandhvac.ca](#)

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