# 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

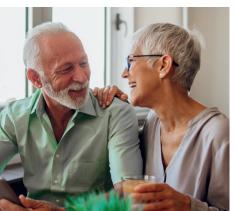


"Natural gas
furnaces seem like
an extremely
outdated technology
in comparison to
heat pumps, like still
having a landline
instead of a cell
phone!"

- Rebecca, Victoria









# 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 a registered Home Performance Contractor Network (HPCN) member? Membership may be required to access incentives.
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 a registered Home Performance Contractor Network (HPCN) member to access incentives – contractors with training on best practices and provincial rebates. Visit <a href="https://homeperformance.ca/find-a-contractor">homeperformance.ca/find-a-contractor</a> 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

Founded in 1968, the **Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI)** is a non-profit national trade association that represents more than 1,150 member companies in the heating, ventilation, air conditioning and refrigeration (HVACR) industry. <u>hrai.ca</u>

The **Building to Electrification Coalition (B2E)**, powered by Zero Emissions Innovation Centre, is a broad coalition working together to electrify buildings in BC to reduce their climate impacts and reliance on fossil fuels. <u>b2electrification.org</u>

The **Home Performance Stakeholder Council (HPSC)** works with qualified contractors committed to working together to advance home performance in British Columbia. <a href="https://doi.org/10.1007/journal.com/">https://doi.org/10.1007/journal.com/</a>









