

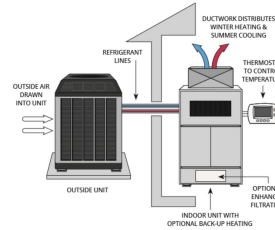
VANCOUVER HEAT PUMP EXHIBIT

TYPES OF HEAT PUMPS

Heat pumps can be designed to replace any type of existing system.

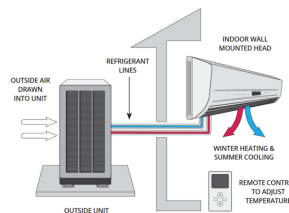
Central Heat Pumps

Central heat pumps have an outdoor unit and indoor unit that is connected to the ductwork of a home. They are generally a great option for replacing a forced air furnace.



Mini-Split Heat Pumps

Mini-split, also called ductless, heat pumps have outdoor unit(s) and indoor head(s). Refrigerant lines are run directly to the heads that provide heat, eliminating the need for ductwork. These systems are excellent to replace baseboards or boiler systems.



Hydronic Heat Pumps

Hydronic, or air-to-water, heat pumps, are designed to directly replace boiler or combi-boiler systems. These systems are ideal if you want to retain the feel of your in-floor heating.



HOMEOWNER'S GUIDE

CITY OF
VANCOUVER

GREENEST
CITY

WHY SWITCH TO A HEAT PUMP?

4 great reasons
for your home and planet

CLEAN ELECTRICITY

A heat pump or natural gas furnace both can last up to 20 years. For the average home, choosing to use a gas furnace will emit the same amount of carbon emissions as personally taking 173 round-trip economy flights from Vancouver to Toronto. That's almost 9 flights every year!*



With a heat pump running on BC's renewable electrical grid, those emissions are almost entirely eliminated.

GREATER CLIMATE RESILIENCE



Climate change is bringing increased risks of extreme weather, including more extreme heat events in the summers. Heat pumps can provide your home with greater climate resistance by not only heating your home in the winter, but providing cooling in the summer!

BETTER INDOOR AIR QUALITY

Most heat pumps are forced air systems, which help keep air moving to provide a more consistent temperature throughout a home. Most heat pumps also come standard with air filtration and dehumidification features, which can remove pollutants from the air and help prevent moisture issues.



A MORE EFFICIENT HOME



Heat pumps are the most efficient residential heating system on the market. By installing a high efficiency heat pump and completing complementary home retrofits, homes of all ages can maximize their efficiency and may have comparable or lower heating costs than homes heated with natural gas, which is a fossil fuel.

WANT TO LEARN MORE? CHECK OUT
BRINGTHOME4CLIMATE.CA/RESOURCE-LIBRARY

VANCOUVER IS LEADING THE WAY

We have adopted heat pump technology at these locations!

CITY HALL

Installation of an air-to-water heat pump system at Vancouver City Hall has reduced natural gas usage by 45% and eliminated an estimated 100 tonnes of carbon emissions.

Additional heat pump retrofits on the upper floors and updates to the building's heating infrastructure by 2030 will eliminate another 210 tonnes of carbon emissions per year (a 91% total reduction)!



KITSILANO COMMUNITY CENTRE

An innovative heat recovery system was installed at the Kitsilano Community Centre using heat pumps to simultaneously cool the Centre's skating rink while providing space and water heating to the other building areas.

By adding this system to existing heating infrastructure, and completing other deep retrofit upgrades, the Centre reduced its gas consumption by 3,800 Gigajoules (GJ) per year and cut its carbon emissions by 82%!

HILLCREST COMMUNITY CENTRE

Hillcrest's new heat pump system helps provide dehumidification of the indoor swimming pool area. The heat pump can capture heat from the moisture it removes and use that heat for the building's hot water needs, while simultaneously providing cooling to the fitness centre.

The upgrade is estimated to save over 3,000 GJ/yr in gas and eliminate almost 150 tonnes of carbon emissions per year!



KILLARNEY COMMUNITY CENTRE

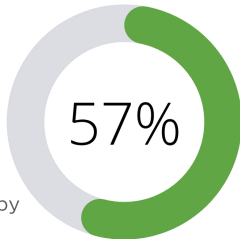
Killarney's heat pump system uses a combination of the other community centres, utilizing waste heat from swimming pool dehumidification and the skating arena to provide space and water heating to the building as a whole.

Upgrades to this building are estimated to reduce carbon emissions by up to 478 tonnes and save up to 9,708 GJ of gas each year!

CURBING VANCOUVER'S EMISSIONS

Space and water heating

in homes and buildings accounts for 57% of total carbon emissions in the City of Vancouver. An accelerated transition to heating with clean electricity will be crucial to meeting our 50% emissions reduction target by 2030 from 2018 levels.



Do heat pumps really make a difference?

Absolutely! Heat pumps are **2 - 4 TIMES MORE EFFICIENT** than a furnace or boiler. On top of that, BC Hydro's renewable electrical grid produces 93-97% less carbon emissions than natural gas for the same amount of energy.

HEAT PUMPS DO IT ALL!

Heat pumps provide winter heating and summer cooling, reduce carbon pollution, and use very little energy. That's why they're a key part of the City's Climate Emergency Action Plan.

For existing buildings:

By 2030, we aim to cut carbon emissions by 50% from 2007 levels. Transitioning away from natural gas and towards heat pumps is a key strategy to achieve more efficient and low-emission heating and cooling.



For new construction:

By 2030, our aim is to reduce embedded emissions from new buildings and construction materials by 40% compared to 2018 levels and require renewable heat sources.

B.C.'s electric grid is almost entirely renewable hydro power, producing next to no carbon emissions during electricity generation. This is what makes switching from natural gas to a heat pump a game-changer. We can eliminate virtually all emissions for heating our homes and buildings with this one upgrade!

PROVINCIAL AND CITY REBATES, EASY AS 1-2-3!

1. Call an Energy Coach

Visit betterhomesbc.ca and call the CleanBC Energy Coach Service for information, to ensure you qualify, and to verify your heat pump eligibility.

2. Install your heat pump

Have your heat pump installed by a licensed heating and cooling contractor.

3. Apply on one form!

Apply at betterhomesbc.ca/applications to receive up to \$12,000 in rebates! Energy Coaches can also help you if you get stuck.

WANT TO LEARN MORE? CHECK OUT
VANCOUVER.CA/HEATPUMPS

Want to learn more? Check out the following online resources!
vancouver.ca/heatpumps | betterhomesbc.ca | bringithome4climate.ca