

Which System is Best for Your Home?

Natural Gas vs Heat Pump

When replacing the heating system of your home, there are four main things to consider: desired features, the quality of comfort the system can provide, the energy efficiency and climate impact of the system, and associated costs including installation, operation, and maintenance costs. A system with high efficiency ratings will consume less energy and produce less greenhouse gas emissions.

| | | Modern Electric Heating Systems | | | | Modern Natural Gas Heating Systems | |
|-------------------|---|--|--------------------------------|--------------------------------|--------------------------------|------------------------------------|-----------------------------------|
| | | Mini-Split Heat Pump | Central Heat Pump | Combination Heat Pump | Air-to-Water Heat Pump | Natural Gas Furnace | Natural Gas Boiler |
| FEATURES | Air Conditioning | ✓ | ✓ | ✓ | ✓ | | |
| | Zonal Heating | ✓ | | | | | |
| | Central Heating | | ✓ | ✓ | ✓ | ✓ | ✓ |
| | In-Floor Heating | | | | ✓ | | ✓ |
| | Needs Ductwork | | ✓ | | | ✓ | |
| COMFORT | Outdoor Noise ¹ | Some | Some | Some | Some | None | None |
| | Indoor Noise ¹ | Some | Some | Some | Some | Some | Minimal |
| | Air Filtration | ✓ | ✓ | ✓ | ✓ | ✓ | |
| | Dehumidification | ✓ | ✓ | ✓ | | | |
| | Heating Delivery | Moderate Speed Forced Air | Moderate Speed Forced Air | Slow Speed Radiant | Slow Speed Radiant | Fast Speed Forced Air | Slow Speed Radiant |
| ENERGY EFFICIENCY | Comparative Heating Efficiency | Highest 300-400% Energy Input : Heat Output 1 : 3-4 | Highest 300-400% 1 : 3-4 | Highest 300-400% 1 : 3-4 | Highest 300-400% 1 : 3-4 | Medium 95-99% 1 : 0.95-0.99 | Medium 95-99% 1 : 0.95-0.99 |
| | Annual Average GHG Emissions ² | Very Low 0.08 tons GHGs | Very Low 0.08 tons GHGs | Very Low 0.08 tons GHGs | Very Low 0.08 tons GHGs | High 3.8 tons+ GHGs | High 3.8 tons+ GHGs |

¹ Factors contributing to noise levels include ductwork design and workmanship and rated noise levels of the system. Modern indoor heat pump units generally range between 18-30 decibels and modern outdoor units are rated around 40-60 decibels. The lower the noise rating, the quieter the unit is. For comparison, a quiet rural neighbourhood is around 30 decibels and normal at-home conversations are around 50 decibels.

² Annual Average Greenhouse Gas Emissions (GHG) from heating are in tons of CO₂eq. Figure does not include whole home GHG emission estimates. Whole home GHG emissions will depend on a combination of other home systems including appliances and hot water heating.

Data: GHG Emissions and Operation Costs based on modeled performance of an average efficiency 2,500 square foot, 1948 home in the capital region, BC. Home modeled in HOT2000 v11.9; heating rates based on 2020 utility rates. Heat pump has 9.3 HSPF, Oil heating is 83% AFUE, Natural Gas heating is 95% AFUE.

Investing in the Best Heating Option For Your Home

Investing in a high efficiency heating system is a cost effective and climate-friendly choice for your home. British Columbia also has a variety of rebates available to help homeowners purchase the most efficient and climate-friendly options for their homes.

| | | Modern Electric Heating Systems | | | | Modern Natural Gas Heating Systems | |
|------------------|--|---------------------------------|----------------------------|-----------------------|------------------------|------------------------------------|----------------------------|
| | | Mini-Split Heat Pump | Central Heat Pump | Combination Heat Pump | Air-to-Water Heat Pump | Natural Gas Furnace | Natural Gas Boiler |
| COSTS | Average Installation Costs ³ | Medium \$3,500-\$12,000 | Medium \$7,000-\$12,000 | High \$12,000+ | High \$12,000+ | Medium \$6,500-\$8,000 | Medium \$9,000-\$12,000 |
| | Average Monthly Heating Costs ⁴ | Low \$20-80 | Low \$20-80 | Low \$20-80 | Low \$20-80 | Low \$30-\$80 | Low \$30-\$80 |
| REBATES & OFFERS | Heating System Rebates | up to \$3,000 | up to \$3,000 | up to \$4,300 | up to \$4,300 | up to \$1,000 | up to \$1,200 |
| | Electric Service Upgrade Rebates | \$500 | \$500 | \$500 | \$500 | None | None |
| | Group Purchase Rebates | up to \$500 | up to \$500 | up to \$500 | up to \$500 | None | None |
| | Municipal Top-Up Offers | \$350 - \$6,000 | \$350 - \$6,000 | \$350 - \$6,000 | \$350 - \$6,000 | None | None |
| | Financing Offers | up to \$40,000 | up to \$40,000 | up to \$40,000 | up to \$40,000 | None | None |

- For more information on rebate and financing offers in your area, visit www.betterhomesbc.ca. New and limited time offers become available regularly, check back frequently!
- Homeowners can stack and combine Municipal Top-Ups, Group Purchase Rebate, and Electric Service Upgrade Rebates when switching from fossil fuel to a heat pump.
- Prefer to access financing? Interest rates as low as 0.00% are available through the CleanBC Low-Interest Financing Program.
- Always engage an accredited HVAC contractor when upgrading your heating system to ensure the system is properly sized for your home, delivers the features you want, and is protected by warranty.
- To achieve the greatest cost and GHG savings when upgrading your heating system, consider also upgrading the insulation and air sealing your home to improve the overall efficiency and reduce heating and cooling needs.

³ Installation costs are before rebates are applied. Based on average installation costs reported by BC Hydro and the Province of British Columbia.

⁴ These figures are estimates only and includes only space heating. Actual energy costs and usage may differ due to fuel costs, appliance efficiency, lifestyle and energy efficiency measures incorporated into the household. Cost of maintenance calls depend on the service needed, parts required, and HVAC technician hourly rates. Many companies provide services for both furnaces and heat pumps.

Data: GHG Emissions and Operation Costs based on modeled performance of an average efficiency 2,500 square foot, 1948 home in the capital region, BC. Home modeled in HOT2000 v11.1.9; heating rates based on 2020 utility rates. Heat pump has 9.3 HSPF, Oil heating is 83% AFUE, Natural Gas heating is 95% AFUE.