Heat Pump Buyer's Guide

Efficient Home Heating and Cooling for Year-Round Comfort

PG&E

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Introduction

Heat pumps are a smart way to keep your home warm in winter and cool in summer, save energy, and lower bills. They also help build a more sustainable home, community, and future.

Purchasing a heat pump is a meaningful investment that takes consideration and planning. This guide can help you explore heat pumps, so you can understand your choices and make confident, informed decisions.

In this guide, you will find:

- ☑ How heat pumps work for home heating and cooling
- ☑ Benefits of heat pumps
- ☑ Buying considerations
- ☑ Installation and care tips
- ☑ Resources for switching to a heat pump

Did you know?

$596

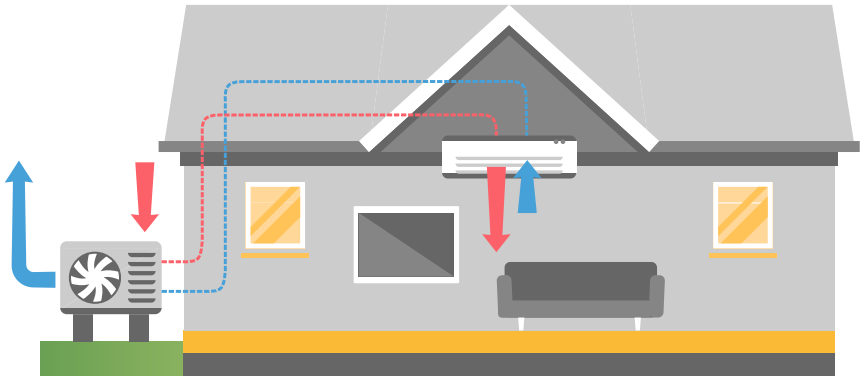
PG&E customers can lower their energy bills by an average of $596 per year by switching from gas to a high efficiency heat pump for heating and cooling.[1]

[1] Disclaimer: This estimate is based on an analysis using the Fixed Charge Design and Bill Impacts Model prepared for California Public Utilities Commission (CPUC) by Energy Environmental Economics (E3), Inc. in April 2023. It considers customers transitioning from Time-of-Use to Electric Home rate plan. The potential savings will vary depending on the customer's location, energy use, enrollment in PG&E programs, and current rates in effect.

How heat pumps warm and cool your home

Unlike traditional systems that generate heat, an electric heat pump moves heat, which uses much less energy to keep your home warm. It can also cool your home in the summer, giving you one system that does the job of both your heater and air conditioner.

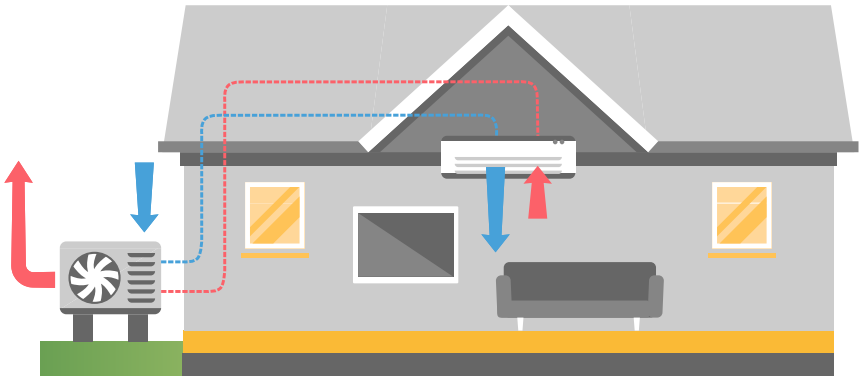
Winter (Heating)



1. The outdoor unit pulls heat from the air and transfers it inside through coils.
2. The heat pump distributes warm air while drawing in cold air.
3. Cool air is vented to the outdoors.

Note: Heat pumps include an auxiliary heat setting that steps in during the defrost cycle or sudden temperature drops to keep indoor comfort steady.

Summer (Cooling)



1. The heat pump pulls heat from inside and sends it to the outside unit.
2. The cooling coils take in heat and release it outside.
3. Cool air is released inside.

Benefits

An electric heat pump offers many advantages over gas furnaces and air conditioners.

Year-round comfort

Heat pumps keep your home comfortable in every season by moving heat in and out to maintain a steady temperature. Unlike systems that blast hot air, heat pumps deliver steady, even warmth—avoiding temperature swings, reducing energy waste, and keeping rooms consistently cozy. When paired with a smart thermostat and connected controls, they can automatically adjust to support reliable comfort all year long.

Cost savings

While upfront costs may be higher than a traditional system, modern electric appliances like heat pumps are more efficient than gas options. Their improved efficiency can lead to long-term energy savings and lower monthly costs. You can also maximize your savings by using available incentives and choosing an electric rate plan that works best for your new appliances and energy use.

Energy savings

A heat pump can deliver 2 to 4 times more heat than the electricity it uses.[2] Compared to electric resistance heating systems, heat pumps can reduce electricity use from heating by 75%.[3]

Sustainability

A heat pump's high efficiency helps lower your carbon footprint. Heat pumps can cut your home's emissions by up to 64%, or 9,700 pounds of carbon dioxide. That's equivalent to planting 73 trees and letting them grow for 10 years.[4]

[2] https://www.energy.gov/energysaver/air-source-heat-pumps
[3] https://www.energy.gov/energysaver/heat-pump-systems
[4] https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Heat pump options

Heat pumps come in a few types, such as air source, geothermal, and water source, but most homes rely on air source heat pumps that are ducted or ductless mini split systems. A qualified contractor can recommend the heat pump system that works best for your home.

	 Ducted heat pumps (central)	 Ductless mini split heat pumps (wall or ceiling mounted)
How it works:	Connects to your home's existing central duct system to deliver heating and cooling through vents.	An individual or multiple wall or ceiling units connect to an outdoor compressor, so no ducts are needed.
Best for:	Homes that already have central air or ducts in good condition.	Homes without ducts, room additions, or areas needing zoned controls.
Considerations:	Offers whole-home comfort, control and a familiar setup, but efficiency depends on duct quality. Older ducts may need sealing, upgrades or replacement.	Flexible installation that provides efficient, customizable comfort throughout your home. You can have multiple indoor units, place where needed, and independently control the airflow and temperature of each unit.

What to know before you buy

Choosing the right heat pump for your home is essential for getting the best efficiency, cost savings, and reliable heating and cooling.

Size and electrical capacity

Proper sizing is key to comfort and efficiency. A heat pump that is too small won't meet your needs, while one that's too large can waste energy. A contractor can size your system correctly and confirm if your electrical panel has enough capacity to support the new appliance.

Efficiency ratings

Check efficiency ratings—HSPF2 for heating and SEER2 for cooling. Higher numbers mean better performance. ENERGY STAR-certified models offer an excellent balance of efficiency and value.

Noise level

Heat pump noise varies by unit. Outdoor units typically run at 40–60 dB (similar to normal conversation), while indoor units are often under 30 dB and nearly silent. For a quieter system, choose outdoor units below 55 dB and ensure proper installation and placement.

Financial incentives

Take advantage of the available incentives to help reduce upgrade costs. Be sure to review eligibility rules before making your purchase. Find available incentives in your area by visiting Switch is On, an online statewide resource for rebates and electrification support.

Warranty

Most heat pumps come with a 5–10 year parts warranty and a 10–12 year compressor warranty, while labor is typically covered for 1–2 years. Some manufacturers offer extended coverage if you register your system after installation.

Installation

Prior to installation, consider these essential project needs:

Hire a qualified contractor

Choose a licensed contractor with heat pump experience to ensure you properly size, install and set up your system. Find a qualified contractor in your area by visiting Switch is On.

Check your ductwork

If using a ducted system, your contractor should make sure the ducts are sealed, insulated and correctly sized to provide the airflow your system is designed for.

Plan for electrical readiness

Work with a licensed electrician to confirm your electrical panel and wiring can support the new system. You may need to upgrade or add a smart panel, and also submit an electrical load evaluation request through PG&E's Your Projects Portal.

Choose the right placement

Consider installing outdoor units in a shaded, well-ventilated area with plenty of clearance for airflow, and placing them away from bedroom windows and patios to minimize noise disruptions. Work with your contractor to determine the best location.

Confirm smart thermostat compatibility

Some heat pumps, especially variable-speed models, work best with their own controls, so check compatibility with your contractor before adding a smart thermostat.

Verify system settings with your installer

To ensure your system is set up correctly for heating and cooling, review these settings with your installer: thermostat modes, airflow settings, and any connected controls.

Care

A well-maintained heat pump will use 10% to 25% less energy than a severely neglected one.[5] Follow these 5 quick tips to maintain your heat pump and maximize performance:

1. **Avoid large temperature swings**

   Heat pumps work best maintaining a steady temperature setting. Aim to program it to 68 F or lower in the winter and 78 F or higher in the summer, health permitting.

2. **Inside vents and units**

   Keep indoor vents, returns, and indoor units clear. Leave doors open to occupied rooms for circulation, and close auxiliary room doors to keep conditioned air where it's needed most.

3. **Clean and replace air filters**

   Clean or replace air filters every 1–3 months. Dust indoor vents and returns to maintain airflow and efficiency.

4. **Outdoor units**

   Maintain at least two feet of clearance around the outdoor unit; remove leaves, debris, and vegetation for proper airflow.

5. **Annual maintenance**

   Have a qualified technician inspect your heat pump once a year to clean coils, check refrigerant and ensure all components are running efficiently.

[5] https://www.energy.gov/energysaver/operating-and-maintaining-your-heat-pump

Resources

Financial incentives

Switch is On. Find incentives and programs available in your area.
incentives.switchison.org

Golden State Rebates. Get instant savings on energy-efficient products. Be sure to double-check your system's control requirements before purchasing a smart thermostat.
goldenstaterebates.com

Where to buy

Through a qualified installation contractor. Find a local licensed contractor who is familiar with available rebates for your heat pump upgrade.
switchison.org/contractor-finder

PG&E's Energy Action Guide. Search and compare efficient electric heat pumps and other modern, efficient appliances.
guide.pge.com

Rate plans and resources

PG&E's Clean Energy Calculator. Get personalized estimates for costs, savings, and energy bill impacts, and compare clean energy products and rate plans tailored for your home.
pge.com/calculator

Rate plan options. PG&E offers a variety of rate plans to maximize the benefits of an electric home. Review available rate plan choices to find the best option for your electricity usage.
pge.com/electrification#rateplans

For more information on electric homes, visit pge.com/electrification.

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