

## Heat Pump Benefits: Utility Bill Savings & Combating Climate Change

Heat pumps are an energy-efficient alternative to traditional home heating systems and air conditioners. Choosing a heat pump can reduce your energy bills and greenhouse gas emissions, which contribute to global warming, without sacrificing home comfort. This fact sheet provides information on the costs and benefits.

### Why Use Heat Pumps to Heat/Cool Your Home?

Heat pumps look similar to traditional air conditioners except that they can provide both heating and cooling in a single system. While there are various configurations available, a heat pump system typically includes an outdoor unit and one or more indoor units. Compared to traditional heating systems such as furnaces or baseboard heaters, heat pumps are much more energy-efficient and cause less greenhouse gas emissions<sup>1</sup>.

### Which Type to Choose?

There are four types of heat pumps: air-to-air, air-to-water, geothermal, and absorption. Heat pumps can be equipped in combination with a gas furnace, sometimes referred to as a dual-fuel or hybrid system, to supplement the heat pump<sup>2</sup>.

#### Ducted Heat Pumps

Also known as central heat pumps, have an outdoor unit and an indoor coil in your air handler just like a traditional central air conditioner. These systems distribute warm or cool air throughout the home using ducts. If your home already has a central ducted cooling and/or heating system with proper ductwork, it may be easier to retrofit with a ducted heat pump.

#### Ductless Mini-Split Heat Pumps

Include an outdoor unit and one or multiple indoor units. This type enables you to control heating and cooling by zone. It can save energy cost by only heating or cooling certain rooms in a home. They also work well in smaller homes and apartments.

1. [How Does a Heat Pump Work?](#) ENERGY STAR
2. [Heat Pump Systems.](#) Department of Energy
3. Example: [Federal ASHP Tax Credit.](#)  
You can also search by zipcode through [DSIRE database.](#)
4. [Equivalency calculated using EPA's Greenhouse Gas Equivalencies Calculator](#)



## A Glance at Heat Pump Benefits

### Energy Cost

For a home in the Midwest, replacing a traditional furnace or electric baseboard heater with a heat pump can potentially save \$ 55–\$ 675\* per year on energy bills.

Some utilities (e.g., [ComEd](#)) offer a bill savings calculator and rebates, so please check your utility's website. Additional resources are available from the [Midwest ASHP Collaborative.](#)

*\*Actual bill changes are subject to various factors.*

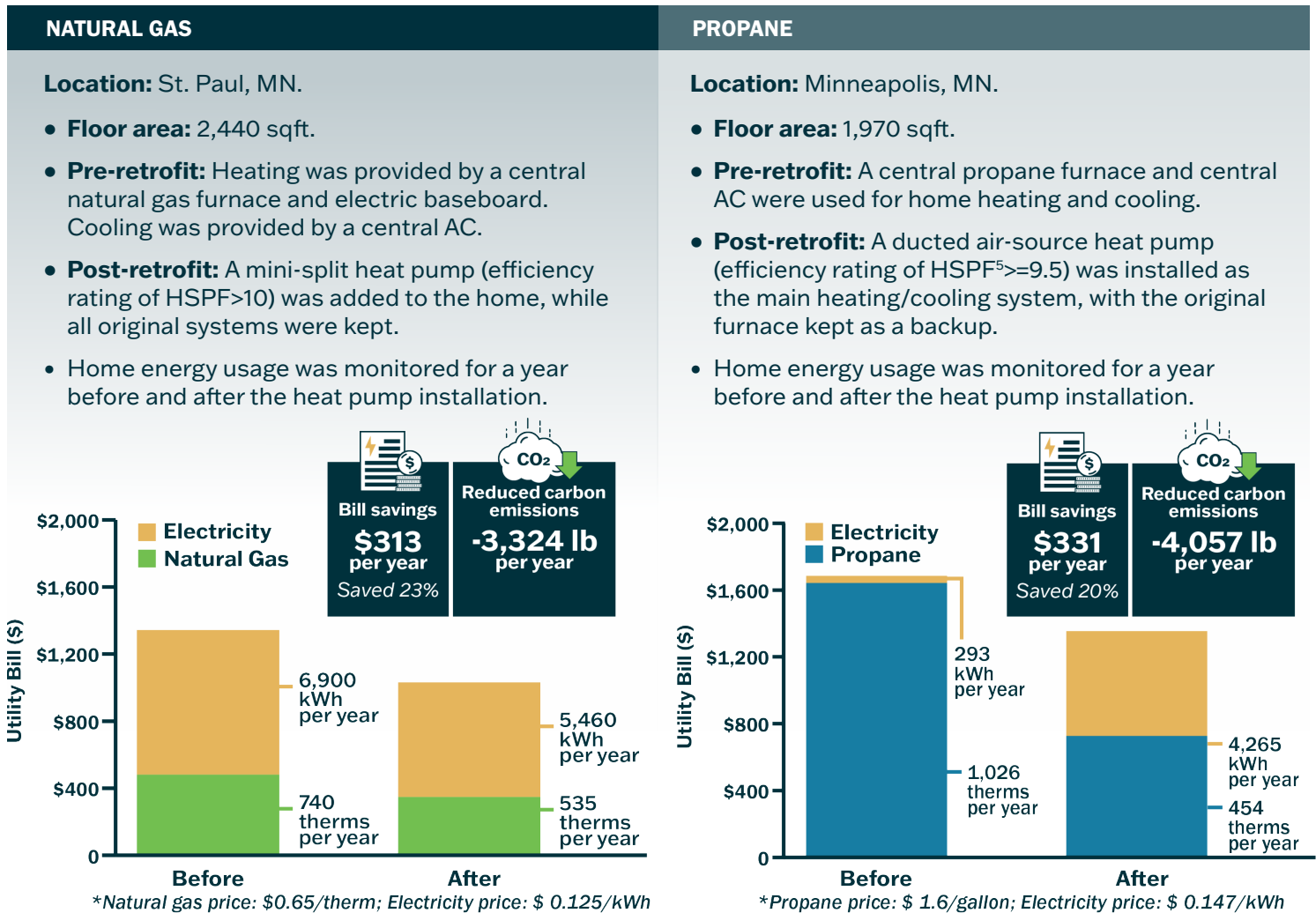
MORE SAVINGS	ADDED COSTS
Previously use propane/fuel oil or electric resistance for heating	Heating bill savings may be offset by adding AC in homes that did not have AC previously
Choose a higher efficiency heat pump model	If your utility provider's electricity price is high, switching from gas to a heat pump for heating can potentially add cost

### Other Benefits and Considerations

1. Rebates/Incentives for heat pumps are more generous than ever before. Check info on utility, state, and federal incentives<sup>3</sup>.
2. For a home in the Midwest, replacing traditional heating systems with a heat pump can potentially reduce ~4,000 lbs of carbon-dioxide emission per year to help slow down global warming. Retrofitting two homes with heat pumps is equivalent to removing a gasoline passenger vehicle from the road per year<sup>4</sup>.
3. The efficiency of heat pumps has the potential to protect you from rising energy prices.
4. Heat pumps eliminate the risk of carbon monoxide poisoning and indoor air quality issues associated with home heating using natural gas, propane, or fuel oil.

# Heat Pumps Can Reduce Your Utility Bill

## Real Examples of Single Family Homes in the Midwest



### How Much Does Installing a Heat Pump Cost?

The cost of installing a new heat pump can potentially include the following components: equipment cost, system testing and calibration, labor cost (sizing calculation, removal of the old system, and installation of the new system), electrical upgrades, ductwork or piping modifications, permits and inspection fees. The equipment cost can vary based on the brand, type, and efficiency; the installation cost can vary considerably depending on additional costs such as electrical panel upgrades or ductwork modifications. We recommend getting multiple quotes from contractors to get the best price and check the incentives/rebates available before making a decision<sup>6</sup>.

### Installation Costs

Majority of home heat pump retrofits in the Midwest cost between \$11,300 and \$19,500\* based on available data.

**\*Actual installation costs are subject to various factors.**

LOWER COST	HIGHER COST
Only displacing part of the home heating with a heat pump	Installation requires electrical wiring and/or panel upgrade
Well-insulated homes require smaller equipment capacity	Duct upgrades/replacement required or there are inaccessible work areas
	Equipment of higher capacity or premium efficiency

5. [HSPF \(Heating seasonal performance factor\)](#) indicates the efficiency of heat pumps.  
 6. [Air Source Heat Pumps Tax Credit](#) ENERGY STAR



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