

# HEAT PUMPS: A HIGH-EFFICIENCY HEATING & COOLING SOLUTION



Looking to comfortably heat and cool your home while being more efficient, environmentally friendly, and still save money? Consider a heat pump!

- + HEATS EVEN IN SUB-ZERO TEMPERATURES**  
Modern cold climate heat pumps can heat homes efficiently in sub-zero temperatures, even as low as -25°F.
- + IMPROVES YOUR HOME'S AIR QUALITY**  
Natural gas and propane furnaces generate heat by burning a mixture of fossil fuel and air. Heat pumps don't use combustible fuel to create heat; rather, they transfer the heat from surrounding air and eliminate potential exposure to dangerous combustion byproducts such as carbon monoxide.
- + SAVES MONEY COMPARED TO ELECTRIC BASEBOARD HEAT OR PROPANE FURNACES**  
A heat pump can transfer 300% more energy than it consumes, compared to a high-efficiency gas furnace's 95% rating. Because of this, electric heat pumps can also save substantially on fuel consumption. An ongoing study by the Electric Power Research Institute (EPRI) found that using a heat pump could save hundreds of dollars per year compared to propane at \$1.65 a gallon.

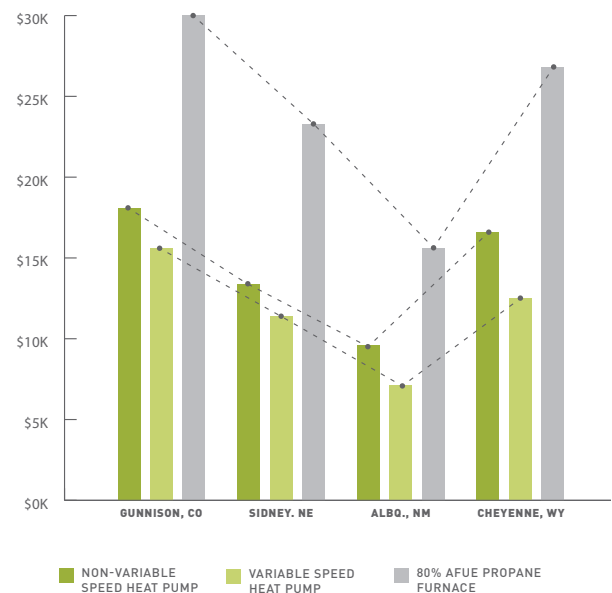
## ECONOMICAL HEATING

New variable speed or cold climate heat pumps not only keep you more comfortable, but they also maximize your savings during heating and cooling season. Whether you are looking to replace your current heat pump, baseboard electric heat or propane furnace, modern variable speed heat pumps pay for themselves.

Your local electric cooperative or public power district may provide rebates for this energy-efficient option. Contact your electric power provider for more details!

### AVERAGE RESIDENTIAL HEATING COSTS BY FIXTURE AND CITY\*

\*Based on a 1,500-square-foot home with 2009 IECC insulation levels. \$0.12 per kWh and \$2.00 per gallon of propane. Energy use updated for each location with same variables.





## HOW DO HEAT PUMPS WORK?

As the name implies, heat pumps transfer heat energy between inside and outside spaces, heating or cooling as desired. So, in the winter they move heat indoors and in the summer they move heat outside. Heat pumps eliminate the need to have two separate systems to perform heating and cooling, and a properly maintained, high-quality heat pump will last at least 15-20 years. Both ducted and ductless heat pumps provide efficient HVAC solutions for new homes and additions, renovations, adding air conditioning (AC), or consolidating your current HVAC system.

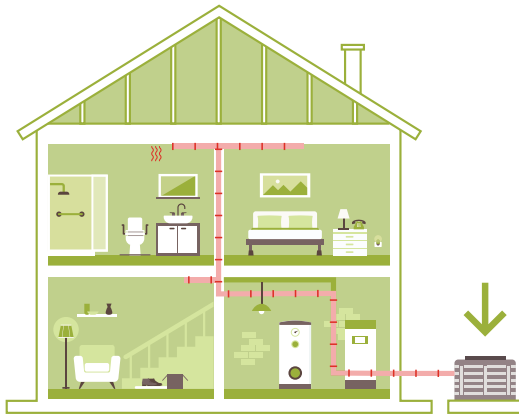
## DUCTED

AIR-SOURCE HEAT PUMPS



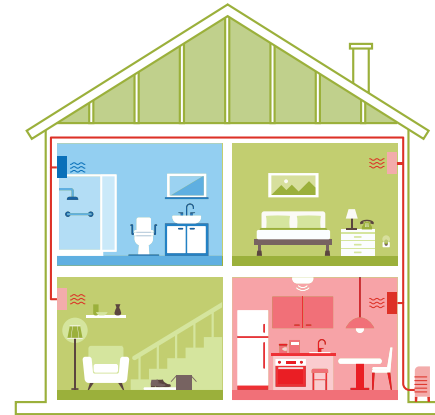
## DUCTLESS

AIR-SOURCE HEAT PUMPS



- + One system to heat and cool your home
- + Good airflow exchange, filtration and humidity control
- + Whisper-quiet operation

Ducted air source heat pumps are central systems that heat and cool using your existing ductwork, and can potentially replace your HVAC and furnace in one system. This enables homeowners to heat and cool their home using the same unit. Ducted equipment looks similar to a residential air conditioner on the outside and the inside air handler is similar in size to a conventional furnace.



- + Perfect for new homes and additions, renovations or adding AC
- + Control temperature for individual rooms
- + Flexible placement

Ductless heat pumps, also known as mini-splits, are an air source heat pump system that consists of two units—an indoor air handler connected to a slim outdoor condenser through a small opening in the wall or ceiling behind it. This means that mini-splits don't require ductwork, which saves homeowners space and gives them flexibility in placement.

Mini-splits are perfect for new homes, renovations, home additions, or adding air conditioning. They also control the temperature for an individual room, making heating and cooling more efficient while maintaining comfort.

