

Heating and cooling is the largest source of energy use and greenhouse gas emissions in single family homes. Electric heat pumps are cost-effective and the most energy efficient heating technology available. Heat pumps can be used in new construction, or to upgrade any existing heating system, including inefficient electric baseboards, gas and oil furnaces.

SIGNIFICANT OPPORTUNITY

Heat pumps offer heating and cooling with one system, use less energy and increase the comfort of your home.





**BENEFITS** 



### Comfort

Variable speed technology provides quiet, precise temperature controlled comfort.



#### **Efficient**

Up to 5 times more energy efficient than all other heat sources reducing operating costs in most applications.



## Clean

Electricity that powers heat pumps is getting cleaner every year, and Washington already has the cleanest grid in the country.



## Healthy

Electric heat pumps don't rely on combustion of gas, removing a major potential source of indoor air pollution.



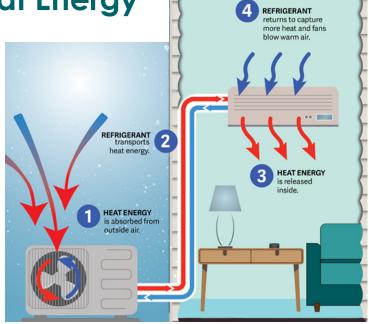
## Customizable

Ducted and ductless heat pump systems provide flexible options to meet heating and cooling needs for any home layout. Heat Pump Harvests Heat Energy

Heat pumps consist of an outdoor unit connected to one or more indoor units. They extract heat from the cold outdoors, concentrate it, and deliver it inside. A heat pump can operate in the reverse direction to cool a house as well.

Variable speed fans in heat pumps can speed up or slow down to provide just the right amount of heating or cooling. They are also quieter than most air conditioners and furnaces.

Today's heat pumps operate efficiently below freezing, and special cold-climate models produce heat down to outdoor temps of -15 degrees Fahrenheit, negating the need for backup heat.



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### CONSIDERATIONS

# **High Performance**

High performance heat pumps have EnergyGuide ratings greater than 10 HSPF (Heating Seasonal Performance Factor) and 20 SEER (Seasonal Energy Efficiency Rating—for air conditioning).

### Plan Ahead

Transition to a high efficiency heat pump before your existing heating system fails, in order to obtain the best system for your home.

# **Gradual Heating**

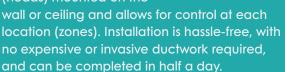
Heat pumps provide gradual heating and cooling in homes circulating warm versus hot air, or cool versus cold air. Thermostat schedules can be adjusted to provide continuous comfort.

#### **Aesthetics**

Indoor (wall units) and outdoor units are more visible than components of other heating systems.

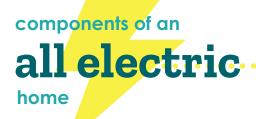
## **Ductless vs Central Systems**

A ductless system (also known as a mini-split) has one or more units (heads) mounted on the



Central systems use a heat exchanger and fan to replace a forced-air furnace, and the conditioned air is delivered throughout the house through ducts.





INSULATE & AIR SEAL



HEAT PUMP SPACE HEATER



**HEAT PUMP** 

WATER HEATER



INDUCTION COOKTOP