

HEAR PROGRAM HEAT PUMP UTILITY BILL IMPACT ESTIMATE



A heat pump is an electric heating system. Running one will increase your electric use. In many cases, the cost of this additional electric use can be offset by savings elsewhere, such as reduced propane or oil heating bills. Cost savings will vary based on a household's previous heating system, fuel types and prices, and how the new heat pump(s) will be used.

Customers entirely replacing their fuel oil, propane, or electric resistance (baseboard) heating systems are likely to see cost savings when operating a heat pump as their primary heating system. In some cases, there may be significant savings. **Replacing natural gas heating systems with all-electric heating systems will typically increase annual energy costs.**

A dual-fuel, or hybrid, heat pump may be recommended for your home. These systems allow a home to keep a fossil fuel backup system. In nearly all cases, homes traditionally being heated by fuel oil, propane, or electric resistance will see annual savings when a hybrid system is installed. **Offsetting natural gas use with a dual-fuel system can often lead to small annual fuel savings. However, in some cases, these systems may also result in an increase in annual utility bills. Individual situations will vary significantly.**

The information on this page is for reference only. Additional educational resources are provided at the bottom of this page.

A Wisconsin Public Service Commission report, "Planning for Wisconsin Air Source Heat Pump Market Transformation¹", analyzed the various impacts of installing dual-fuel heat pumps in Wisconsin. The table below shows the estimated annual cost savings when adding a heat pump to a new or existing natural gas or propane heating and cooling system.

Table 1: Estimated Annual Cost Savings

Existing Fuel & Equipment	Heat pump Being Added to a New or Existing System	Estimated Annual Cost Savings: Single Family	Estimated Annual Cost Savings: Multifamily
Natural Gas Furnace	Single- or 2-Stage Heat Pump	\$119	\$95
Natural Gas Furnace/Boiler	Variable-Speed Heat Pump	\$170	\$136
Natural Gas Furnace	Cold-Climate Heat Pump	\$156	\$125
Propane Furnace	Single- or 2-Stage Heat Pump	\$872	\$698
Propane Furnace/Boiler	Variable-Speed Heat Pump	\$1,299	\$1,039
Propane Furnace	Cold-Climate Heat Pump	\$1,155	\$924

Assumptions for values in the table above:

Year home built = 1960 - 1979

Conditioned sq. ft. = 1,690

Heat pump size = 2 tons

Furnace efficiency = 95% AFUE

Switchover temp = 40°F

Electricity price = \$0.132 / kWh

Natural gas price = \$0.981 / therm

Propane price = \$2.24 / gallon

¹ <https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=472912>

Additional resources:

Focus on Energy Heat Pump webpage: <https://focusonenergy.com/equipment/heat-pump>

Focus on Energy Heat Pump Guide: <https://flipbook.focusonenergy.com/view/161641822/>

HEAR PROGRAM HEAT PUMP UTILITY BILL IMPACT ESTIMATE



ALL Sections on this page MUST be completed.

Your IRA Registered Contractor will provide an estimate of the impact on your annual utility bill from installing the proposed heat pump(s).

Existing Primary Heat Fuel (check one):

- ☐ Natural Gas
- ☐ Propane
- ☐ Fuel Oil
- ☐ Wood
- ☐ Electric

Customer's Fuel Rates (fill all that apply):

- Natural Gas: \$ _____ / therm
- Propane: \$ _____ / gallon
- Fuel Oil: \$ _____ / gallon
- Wood: \$ _____ / cord
- Electric: \$ _____ / kWh

Existing System Type (check one):

- ☐ Furnace
- ☐ Boiler
- ☐ Baseboard
- ☐ Wood Stove

New Heat Pump System (check one):

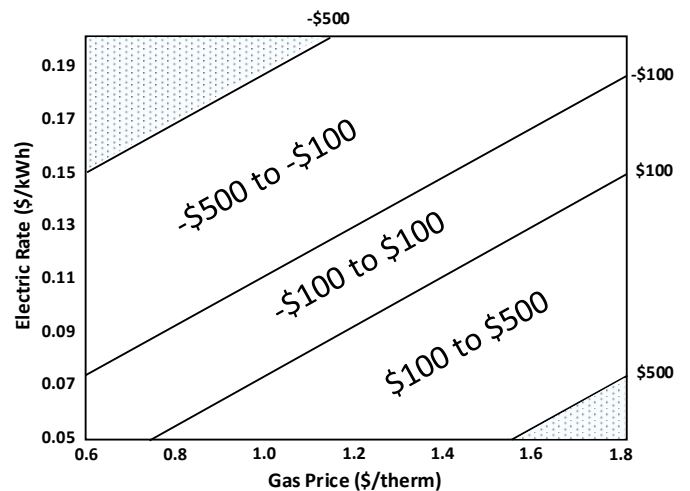
- ☐ All-electric Heat Pump
(entirely replacing existing system)
- ☐ Dual-fuel Heat Pump
(with a new or existing fossil fuel backup)

Instructions

Circle the nearest electric rate and gas price for your home. **Draw lines** from each axis until they connect. This would be the estimated annual savings (or additional cost) if your home was the same as the assumptions for the table above.

Table 2 can be used to estimate the annual utility bill impact for a dual-fuel heat pump that has an existing natural gas furnace. Disregard if you are not replacing a natural gas furnace with a dual-fuel heat pump.

Table 2: Estimated Utility Bill Impact



What impact will this heat pump likely have on the home's total annual utility bills?
(check one)

- ☐ Large Increase
- ☐ No change
- ☐ Small Decrease
- ☐ Small Increase
- ☐ Large Decrease

I acknowledge my Registered Contractor has explained this estimate to me:

Customer Address _____
Customer Name _____
Customer Signature _____ Date _____