

# **Heat Pumps**

### **Heat Pumps**

Off-peak dual fuel rate (winter): 7.0¢/kWh Off-peak dual fuel rate (summer): 9.2¢/kWh

Heat pumps – air source and geothermal – help you capture naturally occurring heat from the air or the earth and move it where you want: indoors in winter, outdoors in summer. And the technology is one of the most efficient heating and cooling systems you can choose.

Heat pumps can be interrupted during periods when the demand for electricity is high, which may qualify you for our off-peak dual fuel electric rates. Since heat pumps also function as your home's central cooling system, cycling is required.

Rebates may apply if unit is connected to PPCS' load management system (see reverse side). Off-peak electric rates are available with this program with a qualifying back-up heat source, if applicable.

### Air source heat pumps

With an air source heat pump, you get air conditioning plus a costeffective heat source.

An air source heat pump transfers heat between your house and the outside air. During the summer months, when used as an air conditioner, an air source heat pump cools your home by transferring heat from indoor air outside. In the heating mode, an air source heat pump can efficiently meet your home's heating needs. Most heat pumps have a balance point when supplemental heat kicks in to maintain the thermostat setting when the temperatures dip below freezing.

The addition of a modulating electric plenum heater or nonelectric backup heat source can provide supplemental heat automatically during those times.

#### Geothermal heat pumps

Geothermal heat pumps let you take advantage of consistent temperatures below ground, all year round.

A geothermal heat pump functions like other heat pumps, using a refrigeration cycle to move heat between the indoor and outdoors. Instead of moving heat to and from outdoor air, a geothermal heat pump uses the earth. It is a complete heating and cooling system operating at up to 350 percent efficiency.

A water and antifreeze solution is circulated through a series of plastic pipes (ground loops) that are buried six to eight feet underground. Ground loops are used to transfer heat, because underground temperatures remain stable. In the heating mode, heat pumps use a typical refrigeration system to extract heat from the ground loops, concentrate the heat and circulate it through standard ductwork.

The system reverses in summer for air conditioning and uses standard ductwork to circulate cool air through your home.



## Load Management Program

Load management is an energy conservation technique used by our wholesale power supplier, Dairyland Power Cooperative, to balance the demand for electricity with the ability to generate or economically purchase electricity.

When demand for electricity exceeds the seasonal load and capacity limits, or if the cost to purchase energy is too high, equipment, such as electric heating systems and water heaters, are switched off by Dairyland through a radio signal-based system.

Load management programs help PPCS manage electric load during peak periods of demand and reduce wholesale energy costs paid to Dairyland. Although extreme cold or hot weather conditions may affect peak demand, load management programs are structured with enough flexibility so that load reduction can be justified at any time, day or night, to save you and your cooperative money.

Dairyland is a member of the Midwest Independent Transmission System Operator (MISO) which ensures safe, cost-effective reliable power and equal access to electric generation and transmission across 15 U.S. states and in Manitoba, Canada. Consequently, Dairyland's use of load management may also be affected by the energy demands and weather patterns of the larger MISO region.

Load management receivers and related equipment are provided and installed by PPCS at no cost to the member.

For more information, call your Pierce Pepin Cooperative Services energy advisors or visit www.piercepepin.coop.



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# **Heat Pump Rebates**

### **Heat Pumps**

Heat pump technology offers the most efficient heating and cooling systems you can choose. A heat pump connected to our load management system can be interrupted when the demand for electricity is high, which may qualify you for PPCS' low off-peak dual fuel electric rates and a rebate.

Winter Storage Rate			Break Even Points		
Electric Rate/kWh*	Efficiency Rating		L/P per Gal	Natural Gas per Therm	Fuel Oil per Gal
7.0⊄	96%	High Effiency Furnace	\$1.80	\$1.85	
7.0⊄	250%	Air Source Heat Pump	68¢	74¢	63¢
7.0⊄	350%	Geothermal Heat Pump	48¢	53¢	45¢

Rebates may apply if unit is connected to PPCS' load management system (see reverse side). Off-peak electric rates are available with this program.

### **Terms and Conditions**

The Electric\$ense program provides rebates for the installation of qualifying equipment for members receiving electric service from PPCS.

- Rebate not to exceed 20% of the cost of equipment.
- Equipment must be installed in 2023.
- Installed equipment must be on cooperative's lines and connected to PPCS' load management system.
- Rebates not allowed for a measure and a component of that measure. For example, if an air source heat pump has a variable speed blower motor, the air source heat pump qualifies for a rebate but not the variable speed blower motor.

- Rebates are in place through December 31, 2023, or until funds are depleted.
- Rebates will be issued as a credit to member's electric account.
- Submit the rebate form and required documentation no later than 3 months after installation date, or by December 31, 2023, whichever date comes first.

### More Ways to Save

Wisconsin Focus on Energy Program: Financial incentives for energy efficiency and renewable energy projects. www.focusonenergy.com/piercepepin

usonenergy.com/piercepepin

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Heat Pump Rebates					
Air Source Heat Pump & Mini-Split	SEER 14+, HSPF 8.2+ or EER 11+ / LM	\$300 per ton			
Commercial Air Source Heat Pump & PTHPs	Under 20 ton: EER 11 or greater / LM 20 to under 60 ton: EER 10.5 or greater / LM 60 ton and over: EER 10 or greater / LM	\$300 per ton			
Geothermal Heat Pump	Any / LM	\$500 per ton			
Other Rebates					
New Furnace with Efficient ECM Blower Motor	The ECM blower motor on the new furnace must be variable speed OR Efficiency (AFUE) >= 95% AND kWh/yr (Eae) <= 670 as listed on the AHRI certificate	\$35 per unit			

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