

Powerful Connections

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Citizens Electric Corporation
A Touchstone Energy Cooperative

Cool Tax Credits Available for Heat Pumps



While you may be more concerned right now about having a dependable, efficient air conditioner, did you know that a heat pump heats and cools? So, if you need to replace either your furnace or air conditioner, consider installing an air-to-air or ground-source heat pump to give you the best value and efficiency for your energy dollars.

Heat pumps move heat from one source to another instead of creating heat. According to the U.S. Department of Energy, if you heat with electricity, a heat pump can trim the amount of electricity you use by 30 percent to 40 percent.

IMPORTANT NEWS: If you install an energy-efficient heat pump, you are eligible for a tax credit of up to \$1,500 or 30 percent of the cost for new energy upgrades. This includes installation of efficient heating, ventilation, air conditioning systems and weatherization. For more information, go to www.dnr.mo.gov/energy/ or www.energystar.gov or call your local CEC office.

All electric heat is not created equal

EQUIPMENT	PROS	CONS
Forced-air electric furnaces use electricity to produce heat	<ul style="list-style-type: none"> You receive \$1.00 of heat for each dollar spent Does not produce carbon monoxide Unit can be placed virtually anywhere Does not require venting Unit is less expensive than some alternatives 	<ul style="list-style-type: none"> Not Energy Star® qualified Operating costs can be high.
Air-Source Heat Pumps use the difference between outdoor and indoor temperatures to cool and heat. In the winter, the system draws warm air indoors, and in the summer, it expels warm air outside.	<ul style="list-style-type: none"> It acts as heater and air conditioner It uses energy to move heat rather than produce it, so operating costs are low. You receive \$2.00 - \$3.00 of heating/cooling for every dollar spent. Energy Star® qualified models have up to a 20% higher efficiency rating than standard models. It does not produce carbon monoxide. Select models do not require venting for combustion gases. 	<ul style="list-style-type: none"> Purchase price is slightly higher than a central air-conditioning unit. At temperatures around 30 degrees or below, auxiliary heating is needed. Temperature of air from supply register is cooler than that of other unit types.
Geothermal Ground-Source Heat Pumps use the earth to provide heating, air conditioning and hot water. It is among the most efficient and comfortable systems available.	<ul style="list-style-type: none"> Lowest operating cost Environmentally friendly It acts as heater and air conditioner. Hot water is a by-product in the summer. You receive \$2.50 - \$3.00 of heating/cooling for every dollar spent. Energy Star® qualified models use 30% less energy than standard heat pumps. Does not produce carbon monoxide Does not require venting 	<ul style="list-style-type: none"> Installation can be more costly than other methods. Installation temporarily disturbs surrounding yard. Some water source units may require an area for drainage.

Help us keep costs down

Just as you may be looking for ways to trim your budget, Citizens Electric is trying to reduce expenses while maintaining reliable electric service. Approximately 20 cents out of every dollar Citizens Electric collects is used for operating expenses. The remainder pays for power supply.



While we have little control of the cost of power, we strive to keep operating expenses down in order to refund capital credits to members whenever possible. Here are some ways you can help us lower operating costs:

- Pay your electric bill by the due date. Costs associated with collecting past due balances total more than \$200,000 per year.
- Sign up for Auto Pay which is the least expensive way for CEC to process payments.
- Eliminate your paper bill by signing up for e-Bill. As soon as the bill is generated, we'll send you an email that contains a link to view and pay your bill online.
- Help us reduce electric demand during peak times when power costs are most expensive. Operate appliances during early morning and late evening hours whenever possible.
- Become more energy efficient. As demand for electricity increases, it creates the need for additional power plants. Save money and reduce the need for more generation by weatherizing your home and replacing inefficient appliances and heating/cooling systems.

Watch for Signs of Home Electrical System Overload

The lazy, hazy days of summer cause all of us to increase electrical usage in order to keep cool. This increased demand creates a greater risk of fire in homes with older or damaged wiring systems.

Electrical distribution systems are the third leading cause of home structure fires. Large appliances, such as air conditioners, are responsible for almost 20 percent of consumer product electrocutions each year.

According to the Underwriters Laboratories, more than one-third of houses in the United States are more than 50 years old. Outdated wiring in many older homes is not adequate to handle increased demand for appliances and electronics used in homes today. If the wiring is deteriorating or crumbling, it can be damaging its own insulation and putting the system at risk for fire.

In order to help protect you and your family, watch for these warning signs:

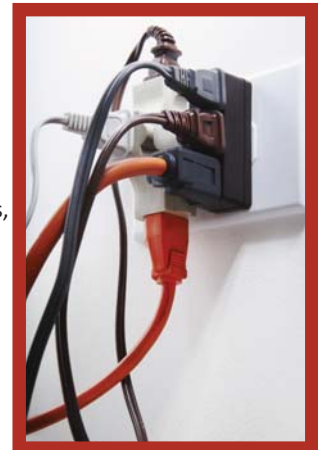
- Lights often flicker, blink or dim momentarily
- Circuit breakers trip or fuses blow often
- Cords or wall plates are warm to the touch or discolored
- Crackling, sizzling or buzzing is heard from outlets

If you experience any of these warning signs, you should have your home inspected by a professional. The cost to have a qualified electrician check your residence and make repairs is small in comparison to the protection it provides your family.

Safe Electricity recommends an electrical system inspection prior to purchasing a home that is 40 years old or older. Most mortgage

companies require an electrical inspection on the purchase of a new home before a loan can be approved. You should also have an inspection when you've had a major renovation, you've added major new appliances in the last 10 years, or if you have extension cords or lots of power strips permanently in use.

Extension cords should only be used temporarily and should be in good condition with a sufficient amp or wattage rating. Never use frayed, stretched or worn cords and keep them out of the path of foot traffic. Don't use an extension cord for air conditioners, electric heaters or fans, and never run them behind baseboards or beneath carpets or furniture. Use a plug bar or surge protector for multiple electronics that are plugged in close together. Remember that overloading an electrical circuit can create a fire hazard.



No matter the season or age of homes, residents should be vigilant and continually check for electrical hazards such as cracked or fraying electrical cords, overloaded outlets and circuits, and improper wattage light bulbs in lamps and light fixtures. Also, make sure smoke alarms are placed correctly and functioning properly.

Energy Term of the Month

RENEWABLE ENERGY

Renewable Energy is electricity generated from natural resources such as solar, wind, biomass, tides and geothermal heat.

More than 4% of CEC's power supply is generated from renewable resources. Our power supplier is actively seeking other alternative energy projects whenever it makes good economic sense.

CEC is supportive of self-generation projects and does not charge any fees for interconnection or net metering. In order to protect Citizens' electrical system, it's important that members contact CEC early into the project planning, so our Engineering Department can assist them with the process.

Energy Efficiency

Tip of the Month



Fans cool people, not rooms.

If the room is unoccupied, turn off fans to save energy. You can save money on air conditioning by raising the temperature setting on the thermostat and using fans in occupied rooms. The airflow creates a wind-chill effect, making you "feel" cooler.

In the winter, reverse the motor and operate the ceiling fan at low speed in the clockwise direction. This produces a gentle updraft which forces warm air near the ceiling down into the occupied space.