

Energy Efficiency Tip of the Month

Replace standard power strips with advanced power strips to save energy. Advanced power strips look like ordinary power strips, but they have built-in features that are designed to reduce the amount of energy used by standby electronics that consume energy even when they're not in use (also known as phantom load).



A couple of things to consider as you go into the new year...

Consider enrolling into e-Services. Combined, these free services simplify the routine billing process and reduce administrative expenses for both our members and the Cooperative. When you enroll your account in both e-Draft and e-Billing, the Co-op will provide a \$1.00 credit on your electric bill (limited to one per member) each month you remain enrolled in both programs.



Be aware of SCAMS. The Utilities United Against Scams (UUAS) says it has seen an uptick in utility scams, even during the COVID-19 environment. Some common tactics for scammers include threatening to disconnect electric service, requesting immediate payment, requesting payments be made through prepaid debit cards, and soliciting personal and private information.

Heat Pumps

Do you own an air source heat pump?

If so, congratulations! An air source heat pump is a great way to heat your home. However, it is no different than any other piece of equipment. At times, it can malfunction.

Following are some common scenarios one might encounter. Being aware of these scenarios could save time, money, and discomfort.

Defrost Cycle

If your heat pump has electric resistance auxiliary heat (not natural gas or propane), it will occasionally enter into a defrost cycle. This cycle is necessary when condensation freezes on the coils of the outdoor unit. If not defrosted, the frozen condensation will build on the unit restricting airflow across the unit's coils and cause the outdoor unit to contribute very little, if any, to the heating of your home.

Despite the outdoor unit not operating properly, this will not necessarily result in your home being uncomfortable. Your outdoor unit will most likely continue using electricity to operate. Your home will probably remain warm due to the increased operation of the unit's auxiliary heat.

Auxiliary heat is expensive to operate and should not be used as the primary source of heat for your home. This expensive source of heat, coupled with an outdoor unit operating but not heating your home, results in a high electric bill.

When a defrost cycle is operating properly, a little frost may build on the outdoor unit

coils. When a heat pump goes into a defrost cycle, you may notice unusual sounds and steam emitting from the outdoor unit. Do not be alarmed. This is normal.

NOTE: One advantage to a geothermal heat pump, aside from being extremely efficient, is that a defrost cycle is not needed.

How do you know if there is a problem?

Following are some things to keep an eye on:

1. Is your outdoor unit covered with a thick layer of frost or ice? If so, call a trustworthy HVACR company in your service area.
2. Does air constantly flow from your registers? At times, is it cool? At other times, is it warm? This could be due to several factors. One of which could be a malfunctioning defrost cycle.

Proper Thermostat Operation

1. It is important to note that auxiliary heat and emergency heat are different modes of operation for the same component. This component is often referred to as heat strips, backup heat, heating elements, electric resistance heat, and the list goes on. Whatever you call it, it is basically a really big space heater.

When operating in heating mode, a heat pump is removing heat from the outside air and sending it into your home. The colder the outdoor temperature, the less effective your heat pump will be. This is where the unit's auxiliary heat steps in. It will operate, as needed, to compensate for

the outdoor unit's inability to provide all the heat needed to satisfy your thermostat.

NOTE: Even when auxiliary heat is needed, the outdoor unit is still contributing a substantial amount of heat to your home and doing so at 200 – 300% efficiency.

So, should you switch your thermostat to emergency heat when it is really cold outside? The answer is no. Allow your heat pump to automatically operate the auxiliary heat, as needed. The emergency heat setting is for just that – an emergency. Switching to emergency heat shuts down the outdoor unit and the only source of heat is the expensive to operate heat strips. If your outdoor unit fails, for any reason, and there is no other way to heat your home – switch your thermostat to emergency heat and immediately call a trustworthy HVACR company.

2. In an effort to be comfortable, a common practice is turning the thermostat down at night and turning it up in the morning. Carroll Electric typically recommends choosing a thermostat setting and not changing it. If this does not fit your lifestyle, please be sure to adjust your thermostat in a manner that does not cause unnecessary operation of auxiliary heat. (Remember – auxiliary heat is expensive to operate.) A good rule of thumb, when turning up a heat pump thermostat, is to do so slowly one degree at a time. Raise the setting another degree each time the room temperature catches up. Doing this more than one degree at a time may cause your thermostat to unnecessarily engage the unit's auxiliary heat. It is best to allow your heat pump to shoulder as much of the heating load as possible.