ENERGY EFFICIENCY

SCOTT'S ENERGY SPOT: SMART T-STATS

Efficiency tips from Firelands Electric's energy advisor

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Energystar.gov defines a smart thermostat as a "Wi-Fi enabled device that automatically adjusts a heating or cooling system's temperature settings in your home for optimal comfort and energy savings." Smart stats can be used on nearly all types of heating and cooling equipment, including residential, commercial, gas, electric, geothermal, and air source heat pumps.

Nowadays, there are a multitude of smart thermostats on the market. Some features are as simple as allowing you to access and adjust the temperature settings and schedules from your smart phone or computer. Others make automatic adjustments to the temperature by using built-in motion sensors or geofencing to "learn" your daily habits. Geofencing technology looks for your smart phone and automatically starts adjusting your home's temperature based on your proximity to the thermostat.

Energy Star estimates the potential heating/cooling energy savings of smart thermostats to be in the 8% to 10% range. Several years ago, Firelands' statewide association, Ohio's Electric Cooperatives, performed its own smart thermostat study on a wide range of HVAC equipment types at cooperatives across the state. The results of their study revealed savings as high as 15%.

Smart thermostats can also log the run times and possible equipment errors of your HVAC equipment. This can be useful when troubleshooting equipment issues or making energy efficient improvements to a member's home.

Smart thermostats do have some limitations, including the need for internet access. They will work without access but are limited to only the functions of a basic digital thermostat. Smart stats also do not work very well on radiant or hot water heating systems due to the slow heat recovery of these appliances. In addition, it's important to make sure that both the thermostat and the mobile app are configured correctly. (Failing to do so can actually cost you money, rather than save it!) There is also a learning curve to get the full benefits of a smart thermostat, which takes some patience. Higher end smart stats take a little time to learn your schedule and comfort settings.

As a final note, it's not typically recommended to install a smart thermostat on HVAC equipment older than 4 or 5 years because of the potential for tech compatibility issues. If you are considering installing a smart stat on an older unit, I suggest having a professional HVAC contractor check your system first.