



ENERGY EFFICIENCY

SCOTT'S ENERGY SPOT: ADJUSTING YOUR THERMOSTAT

Efficiency tips from Firelands Electric's energy advisor



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During summer energy consultations, I often get asked, "Are there any energy savings if I turn my thermostat up when I'm gone?"

The U.S. Department of Energy has performed testing on a variety of homes in warmer climates. They estimate that turning your thermostat up by seven to ten degrees when you are asleep or away from home during the summer months can yield a savings of about 10%, or up to \$180, per year. In my

experience as a building analyst and energy consultant, I haven't found it to be quite that simple, however. A more accurate answer would be "It depends." If a member is interested in saving energy or lowering costs, I would answer yes — but with some reservations.

For starters, when considering thermostat adjustments to reduce energy costs, it's important to keep the efficiency and condition of a home in mind. In previous articles I spoke about air leaks and solar heat gain, where the sun shining through a home's windows heats up the interior.

If a home has poor insulation or is drafty, and the shades or blinds are always open, the air conditioner will struggle as it attempts to cool the house down to a comfortable level.

The age or condition of the outdoor cooling unit, indoor ductwork, and the blower system are

other things to consider. If the outdoor air-conditioning unit has a layer of dirt, debris, or cottonwood or dandelion fuzz stuck on the surface of the coil, it will have a hard time trying to transfer heat from inside the home to the outside, making it very inefficient. If the indoor HVAC filter is plugged or overly restrictive, it will also reduce air flow coming out of the registers. In addition, older homes (and even some newer ones) are notorious for having inadequate ductwork to the second floor. In all of these situations, turning the thermostat down ten degrees when you are not home may actually cause your air-conditioning system to run almost continuously as it tries to cool your home's interior.

With all that being said, members can experiment a bit with their thermostat to determine what works best for their home. Seven to ten degrees might be too large of a temperature swing for their home but a three to four degree shift may be achievable. The installation of a smart thermostat, which learns your habits and adjusts the cooling and heating system automatically according to the home's needs, may also be beneficial. Those who install Google Nest and Ecobee smart thermostats have reported a savings of 10% on their annual cooling costs.

At this point, you're probably wondering, "What conclusions can you even draw from all of this information?" The benefits of adjusting your thermostat at night or when you are at work or school vary from home to home, and person to person. There is no clearcut answer, and determining what is best for your home may be a process of trial and error. If bumping the thermostat from 72 degrees to 78 when you are away works for you and doesn't overly increase the demand on your cooling system, by all means give it a try to see if it lowers your energy use.

However, if you notice your system working harder and running more often to compensate for the change in temperature, it may be a better idea to try a smaller adjustment or other low costs ways to keep cool. For example, start off by checking the outdoor unit to make sure it isn't clogged and that you can see the coil or fins.



Avoid having any debris or landscaping closer than one foot from your outdoor unit so that your system has the room it needs to operate at its most efficient. It's also a good idea to regularly make sure the air filter in your HVAC system is clean and installed correctly. Finally, once the air-conditioner is on, do not open the windows in the evening and use drapes or blinds to limit the hot sun's impact on the interior temperature during the day.

Hopefully this article has provided a better understanding of the numerous variables you need to take into account when deciding if a thermostat adjustment could be beneficial. If you still have questions, please reach out to the energy experts at your cooperative by calling 1-800-533-8658. They will be happy to help or even schedule a free in-home consultation.

UNLOCK SAVINGS WITH MEMBER PROGRAMS

Making your home more energy efficient reduces not only your electricity use, but also your utility bills. To help you unlock the benefits of efficiency upgrades, Firelands Electric Cooperative offers members several programs. Let's take a look at just a few:

- **APPLIANCES** — Replace existing appliances with new qualifying ENERGY STAR-certified models to receive bill credits ranging from \$50 to \$100 per appliance.
- **ELECTRIC WATER HEATERS** — Installation of a new electric water heater or replacement of an existing unit with a model that meets or exceeds the co-op's energy efficiency requirements can earn you a bill credit of \$300 or \$150, respectively.
- **HEAT PUMP AND GEOTHERMAL SYSTEMS** — Co-op members who install new or replacement geothermal, air-source, dual fuel, or ductless mini-split heat pump systems that meet or exceed the co-op's energy efficiency standards can also qualify for rebates. The majority of these incentives do require participation in the cooperative's Cool Returns load management program (www.firelandsec.com/load-management). Rebates range from \$200 to \$800, depending upon the type of system that is installed.
- **MISCELLANEOUS REBATES** — Additional rebates available include incentives for installing a Level-2 electric vehicle charger (up to \$250), smart thermostat (up to \$150), and professionally-installed air-sealing and insulation upgrades (up to \$800).
- **FREE ENERGY CONSULTATIONS** — A free consultation with the cooperative's energy advisor

can provide a great opportunity to learn about how your home or business uses electricity and ways to reduce your consumption. Firelands' energy advisor will review your usage history, pinpoint the systems with the highest usage, and check your property for common sources of energy waste. Depending upon your specific situation, this appointment may also include the use of a thermal-imaging camera to locate air leaks, the temporary installation of data loggers to record a more detailed breakdown of your daily usage, or other tests.

Finding the key to improving your energy efficiency is a great way to save on your utility bills. The cooperative's current rebate programs are effective through June 15, 2026. For a complete listing of Firelands Electric Cooperative's rebate programs and other incentives, as well as the specific eligibility requirements, visit www.firelandsec.com/member-programs. Questions regarding these programs and requests to schedule a free consultation should be directed to the co-op's member services department by emailing members@firelandsec.com or calling 1-800-533-8658.

