

Currents

Your Link to Sussex Rural Electric Cooperative



High Voltage . . .

Thermostat Installation

The installation of a programmable thermostat should take about 30 minutes or less. For the most part, you will be working with low voltage (generally 24 volt) wiring. The instructions from the Honeywell unit were clear and easy. You will want the following tools:

Screwdrivers –

Phillips and flat head

Bubble level

(laser level for the uber geeks)

Battery for the thermostat's memory backup – usually a AA or two

Pencil

Stopwatch ready? Set? Go!

Turn off the power to the system – at the electric panel is best.

Remove the old thermostat and note where the wires are connected before disconnecting them. My Honeywell came with a convenient set of sticky labels to attach to the wires for easy reconnection.

Secure the wires so they don't slide back into the wall. Wrapping them around the pencil works well.

Set the new base plate where you want it and secure with screws. Use your level for aesthetics – the digital thermostat typically doesn't need to be level for proper operation anymore.

Reconnect the wires according to your labels.

Install the backup battery.

Click the thermostat into place.

Power up your system, program and go.

I stay with the preprogrammed schedules for a few days to see how they work before making any changes. You might want to do the same. Enjoy the savings and convenience of automating your heating and cooling system

Commentary by the President & CEO



Cut your home heating bills with old technology

by Jim Siglin
President & CEO

The market is awash with ads and claims for “new technologies” that will cut your home heating costs unbelievable amounts. With the price of fossil fuels rising and legislative pressure building that could force all energy costs higher, everyone is looking for ways to cut their energy expenditures. For the most part, if an ad or claim seems too good to be true, go with your instincts – it probably is.

Having advised you to be wary of claims of huge savings let me talk about a heating option that can reduce your heating costs up to 60% and more. Sound too good to be true? Well, read on. Here is a situation where the claims are justified.

The system I am talking about is an electric thermal storage heating system or ETS for short. This is an old technology that has proven itself for decades in Europe and in the US. We have been selling these systems at the cooperative for over twenty years. There is no technological magic working here. The cost savings achieved with an ETS system come from using lower cost off-peak electricity. We turn the power off to the heating elements during peak periods when electricity costs the most. Your first reaction may be that turning the power off to your heating system is foolhardy at best. Here is where ETS shines. The units contain high-density ceramic bricks interlaced with electric resistance heating elements. During off peak times, we send power to these elements to heat the bricks, storing the heat for use later. When power to the elements is off, a thermostat and fan or pump circulates the warmth stored in the bricks as needed.

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I can tell you first hand that this system works as advertised and that ETS can save as much as 60% on your heating bill. About three years ago, my oil-fired hot water furnace was ready for replacement. Having been exposed to ETS for many years and with the availability of a central furnace that met my needs, it made sense to make the switch. Given recent spikes in the price of home heating oil, my decision seems better every year. At the time I installed the ETS system, my oil bill ran about \$2100. For the heating season the next year, my electric bill came in at a little over \$900, a savings of 57%. Today, the savings are even greater.

ETS is available in models that replace hydronic furnaces, centrally ducted furnaces (it can be paired with traditional AC if desired) and individual room units. ETS is appropriate for remodeling and new construction.

We have more details on our website at: <http://www.sussexrec.com/brochures/ETS.html>

Not only do ETS systems help your budget they help the environment. Using electricity during off peak hours reduces demand during our peaks. In peak demand situations, utilities are often forced to bring on additional generating units to meet the higher needs creating more carbon emissions. Switching peak demand to off peak means much of this load can be served with non-carbon base load generating units. ETS is a form of load control that will be more and more important in meeting the growing energy and environmental demands of the United States.

Give us a call to see if ETS is right for you.

MEMBERS ASK

It might not be obvious that many articles in Currents are the result of Members' questions. We are always ready to research topics of interest and value to our Members to help them make the best informed energy decision.

Case in point is this month's programmable thermostat article. We have received numerous calls on the subject so put together the article. Just before going to press, a Member came in asking about these devices for baseboard electric heat. He had been unable to locate any. We did a quick Internet search and found a perfect solution for him at Smarthome.com, their item number # 300604. You can easily use programmable thermostats on nearly all heating and cooling sources.

Have a question you would like us to address? E-mail ttate@sussexrec.com or call 973.875.5101 x117.



ARE YOU PREPARED FOR POWER OUTAGES?

Power outages are more likely to occur during or after snow or ice storms. The following safety tips will help you to be prepared for the inconveniences that power outages can bring for you and your family:

Be prepared...

- ⚡ Prepare an emergency kit including:
 - Battery powered radio* (hand cranked units are also available if you want to avoid the chance of batteries failing)
 - Flashlight*
 - Additional batteries*
 - Bottled water and canned food*
 - Manual can opener*
 - Candles and matches* – oil lamps must have proper ventilation.
 - First-Aid kit*
 - Medicine, baby supplies*
 - Cash*
- ⚡ Prepare an *emergency telephone list* to

contact the police, fire department, hospital, and electric company. Include your own address and telephone number on this list. **REMEMBER...** cordless phones don't work without power. Invest in an old style telephone that does not require power to operate or have your cell phone fully charged.

- ⚡ Shut off or unplug any sensitive electronic equipment such as TVs and computers to protect them from potential power surges as we work to restore power.

If you are experiencing a power outage...

- ⚡ Verify if you are the only one in your neighborhood without power. If that's the case check your breaker box to make sure all breakers are in ON position. If you still don't have power, call your electric company to report the outage. Don't assume your electric company knows you are without power.
- ⚡ Make sure to turn off all appliances especially any heat-producing electric equipment such as electric stoves, toaster ovens, irons or hair curlers. Leave one light fixture on so you'll know when power is restored.
- ⚡ Keep candles away from furniture, curtains, or any other flammable material. Never leave children alone in a room with a burning candle or open flame.
- ⚡ Never try to use gas stoves, charcoal or briquette grills or camp stoves to heat your home. They are designed to be used only outdoors where there is enough ventilation due to the amount of toxic fumes they produce. If you use them indoors you will rapidly eliminate the amount of oxygen in your house and increase the carbon monoxide inside your home. Carbon monoxide causes serious intoxication problems and even death.

If you are outside...

- ⚡ Stay well away from any downed lines including power, telephone or cable. Energized lines also energize the ground for a substantial distance around the point where they touch the ground.
- ⚡ Do not touch any object that is in contact with downed power lines and can transmit electricity such as water, metal, etc.
- ⚡ Never drive your car over power lines. If a power line falls over your car while you are driving, stay inside your car until you receive appropriate help.

EnergyStar settings for maximum cost savings

EnergyStar/EPA has researched the temperature settings that produce the maximum cost savings for home heating and cooling. These temperature settings apply regardless of the type of system you use to heat and cool and regardless of type of thermostat you use (programmable or non-programmable). The table below gives you those settings in the format typical for programmable thermostats but you can apply the settings via a regular manual thermostat just as easily. Okay, not as easily since the programmable models do the switching for you but pretty easily nonetheless.

The shaded cells in the table indicate the option to skip the control period and go to a different setting on the weekends when you are home most of the day. This will impact your savings but you may be more comfortable.

I have been told by numerous folks that these settings are too cool in the winter and hot in the summer. This is one of those "don't shoot the messenger" moments. And, the sadists at Seattle City Light suggest 68° when you are home and 55° when you are asleep or away – wow! How about the EnergyStar settings now? You can set your thermostat to the level you prefer. Just be aware that your savings will be less when you change the settings. Sources suggest that you save about 3% for every degree reduction in heating (and conversely, increase in cooling) temperature.

One way to compensate for having different settings is to close off portions of your home that are not in regular use. There is no need to heat and cool the entire house if portions are unused. Now you can save money and stay warmer/cooler. When closing off portions of your home, be careful of two things. First, make sure all water pipes are warm enough to prevent freezing and second, test your home's reaction to shutting off portions, especially with forced air systems. Start with a couple of rooms and see if your system actually runs less. Closing off too much of your home with forced air systems can actually force them to work harder, increasing inefficiency and reducing savings.

	H E A T		C O O L	
	(MON - FRI)	(SAT - SUN)	(MON - FRI)	(SAT - SUN)
Wake (6:00 AM)	70°	70°	78°	78°
Leave (8:00 AM)	62°	62°	85°	85°
Return (6:00 PM)	70°	70°	78°	78°
Sleep (10:00 PM)	62°	62°	82°	82°

PROGRAMMABLE THERMOSTATS

By Tom Tate

A programmable thermostat can make a 10 – 15% (maybe even as much as 33% in certain cases) difference in your heating / cooling bill according to industry sources. When you think about the cost of heating and cooling your home, this is nothing to sneeze at. Are these thermostats an ABSOLUTE necessity? No, but they sure are convenient. In my earlier homes, before becoming a fan of the technology, we'd turn the thermostat up and down by hand. This is as archaic as having to get up and change the TV manually. Not satisfied with this arrangement, especially when I had to set the alarm clock an hour earlier in the win-

ter so I could dash through a freezing house to turn up the heat, I discovered the glories of the programmable thermostat.

Of course, the first attraction for a gadget guy is the programmable aspect. Yes, you can tweak the settings to your heart's content, customizing the heating and cooling cycles to your every whim. The first model I had used an analog clock and series of switches. Today, it's all digital, baby, with touch screens and a button or two for looks. **OORAH!**

Enough with the reminiscing. Here's what to look for in a programmable thermostat for your home:



Compatibility with your heating and cooling systems. Not every thermostat can control every type of system. The packaging and store displays have improved significantly of late and it is pretty easy to match your systems to the proper device.

Degree of programmability. Your choices are 5-2, or 5-1-1 or 7 day. This means that the programming options are limited in the following ways: 5-2 allows you to set one program (temps and times) for M-F and a second program for the 2 days of the weekend, 5-1-1 allows you to set individual programs for Saturday and Sunday and 7 day means you can have individual programs for every day of the week. Prices increase as capabilities increase.

Number of control periods. The most common is 4: Wake, Leave, Return, Sleep. I would not buy a thermostat with any fewer than four.

Can you override the programming temporarily? This is a must-have for the times when your schedule changes. Do not buy one without this capability

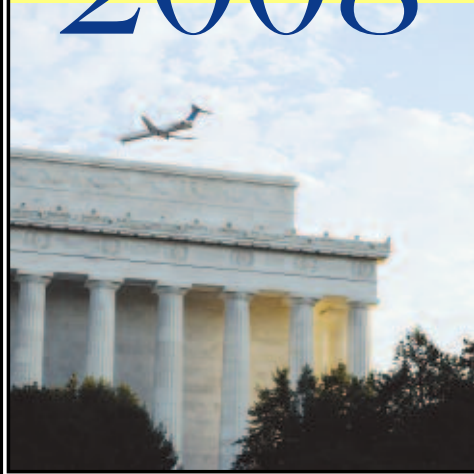
Does it have battery backup to hold your programming changes?

Who makes it? I prefer Honeywell. When I have used something other than a Honeywell, I have regretted it. Lux gets high marks in the consumer ranking but I have no experience there. In my latest Honeywell install (see page 1 for more), I discovered my wiring situation did not match anything in the manual (fancy that). I cruised to their online installation wizard and, with a few mouse clicks, had the precise answer to my needs. Nice. The thermostat works wonderfully and it's hard to argue with the ease of setup and use. Here's the site for your reference:

(<http://yourhome.honeywell.com/Consumer/Cultures/en-US/Support/Thermostat+Wizard/>)

The rest is pretty much picking the one you like the looks of most. Let your inner geek make the decision – the cooler the 'stat, the better the bragging rights later. Imagine the joy of one-upping your geek peers with the coolest home energy saver on the block!

Youth Tour 2008



It's time again to consider applying for the annual cooperative Youth Tour trip to Washington, DC. This all expenses paid week exposes the participants to our nation's capital, to how our government works, to what cooperatives are all about and to thousands of kids from all across the United States.

When: June 15 – 20, 2008

Who: Any high school junior who is the child of a Sussex Rural Electric Co-op member

Deadline: Applications must be received at our offices by March 7, 2008.

Where: Check with your guidance counselor, our website or office for applications, more information and a DVD about Youth Tour.

*It is truly the trip of a lifetime
so apply today!*

Attention Past Rural Electric Youth Tour Students

At least two \$1,000 scholarships in memory of Jody Loudenslager are available through the Pennsylvania Rural Electric Association Scholarship Trust Fund in Memory of William F. Matson for the 2008-09 college year.

fill out and mail this coupon

Name _____

Address _____

City _____

State _____ Zip _____

Email address _____

Name of your electric cooperative _____

Year on Youth Tour _____



Who is eligible?

The scholarship is available to any college-bound or college student who participated in the Pennsylvania Rural Electric Association (PREA) Youth Tour. Applicants need to furnish necessary aptitude test scores and financial need information.

Dates to remember

All applications and required information must be received no later than May 12, 2008. Finalists will be sent a follow-up questionnaire that must be returned by June 1, 2008. Scholarship awards will be announced at the PREA Summer Meeting in July 2008.

How to apply

To receive an application, simply fill out and mail the accompanying coupon to: Pennsylvania Rural Electric Association, P.O. Box 1266, Harrisburg, PA 17108-1266. If you would like to receive the application via email, please include your email address or visit our website, prea.com, for more information.

Jody Loudenslager, a 1995 Pennsylvania Rural Electric Association Youth Tour student from Trout Run, Pa., was among the 230 passengers killed July 17, 1996, when TWA Flight 800 exploded shortly after take-off from New York. Since Jody was committed to higher education, the scholarship was created to honor her and help Youth Tour participants with college costs.



Christmas in the County Winner Announced



This year, we partnered with WSUS to sponsor the "Christmas in the County" Christmas decoration contest. The categories were, Most Original, Most Colorful and Most Traditional. Entrants posted pictures of their homes, decked out for Christmas, at the WSUS website and listeners could then go online and vote for their favorite. This year, the winner is Marc Landry and his family in Vernon. While you didn't have to be a Sussex REC member to

win, the Landry's are members of the cooperative and won for their entry in the Most Traditional category.

The grand prize this year was a portable Cummins generator. The contest was inspired by the old Tim Allen comedy show where he puts up so many lights he needs extra generation to power them, rather than sap all the power from the neighborhood.

Marc said he did all the decorating, but his kids were the primary reason their home



was entered. Once they posted the picture, they shared it with family and friends. Marc said it was a lot of fun and they enjoyed participating. He indicated that the competition was pretty tough; we would have to agree after seeing the entries. He also promises to stay out of the contest in 2008 to give others a chance. We'll see – the thrill of the contest may be too much! Like Super Bowl champs, they like to repeat and three-peat.

Congratulations to Marc and his family. Hopefully they'll never actually need to use the generator except to power especially grand Christmas displays.

Keep your eyes peeled for the 2008 contest and join the fun.

Attention High School Seniors

At least five \$1,000 Pennsylvania Rural Electric Association Scholarship Trust Fund in Memory of William F. Matson scholarships are available for the 2008-09 college year.

fill out and mail this coupon

Please send me an application for the 2008-09 Pennsylvania Rural Electric Association Scholarship Trust Fund in Memory of William F. Matson. I am a high school senior and the son or daughter of a member or employee of an electric cooperative in Pennsylvania and New Jersey who belongs to the Pennsylvania Rural Electric Association.

Name _____

Address _____

Town or City _____

State _____ Zip _____

Email address _____

Name of Electric Cooperative _____

Who is eligible?

The Pennsylvania Rural Electric Association Scholarship Trust Fund in Memory of William F. Matson is offering scholarships to sons and daughters of members and employees of electric cooperatives in Pennsylvania and New Jersey who belong to the Pennsylvania Rural Electric Association. Applicants must currently be high school seniors and be able to furnish necessary aptitude test scores and financial need information. At least five \$1,000, one-time scholarships will be awarded.

Important dates to remember

All applications and required information must be received no later than May 12, 2008. Finalists will be sent a follow-up questionnaire that must be returned by June 1, 2008. Scholarship awards will be announced at the Pennsylvania Rural Electric Association Summer Meeting in July 2008.

How to apply

To receive an application, simply fill out and mail the accompanying coupon or contact your local electric cooperative office. If you would like to receive the application via email, please include your email address or visit our website, prea.com, for more information.

Applicant:

To request a scholarship application, mail coupon to:
The Pennsylvania Rural Electric Association Scholarship Trust Fund in Memory of William F. Matson
P. O. Box 1266
Harrisburg, Pa. 17108-1266

Make the wise choice

When it's time to buy a new water heater, there are a number of choices you can make. You can purchase a heater warranted for six or eight years, one that will be cheap to buy, but expensive to operate. Or you can invest in a Marathon and save money in operating costs...for a lifetime. Marathon - super efficient and warranted not to leak for as long as you own your home.



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- **Environfoam® Insulation** completely surrounds the tank. Superior efficiency with no Ozone-depleting chemicals.
- **Heating Elements** designed to maintain water temperatures and perform in the harshest water environments (just like ours here in NJ).
- **Bowl-Shaped Tank Bottom** developed to allow more complete tank draining.

Contact us today for model availability, pricing and complete information. 973.875.5101 x117 or go to our website:
<http://www.sussexrec.com/brochures/Marathon.html>

Marathon WATER HEATERS *Simply the wisest choice in water heaters.*

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