

Tim Stewart, CEO/Manager

PORTABLE ELECTRIC HEATERS

Understanding how they work is key to using them effectively

A number of portable and hard-wired electric heaters have been introduced to the marketplace in response to high home heating fuel costs. Don't be misled by cleverly worded ads that suggest one heater may be more efficient than

a competitor's. All electric heaters, except ultra high-efficiency heat pumps, provide 100 percent efficiency, and watt for watt, cost the same to operate.

Three main heater designs

The first step is to understand that there are three main heater categories. The first category is the high-temperature radiant style. They are characterized by the glowing red heating elements and shiny mirrored reflector behind the coils. Radiant heaters don't attempt to heat the air, but rely on "beaming" their

warmth directly to people or objects in the room. Just like the sun's warmth, it can be a very pleasing form of heat.

The second category is the natural convection style, which transfers heat differently. Instead of using red-hot coils, these heaters distribute the same amount of heat over a wider surface of the heater. This allows the flow of air over their surface (natural convection) to transfer heat to the air. Often seen in a long, slender baseboard design, these heaters are warm to the touch but not hot enough

to burn you. Other convection heaters are shaped like old-fashioned cast iron radiators, as found in historic buildings. An oil-like fluid inside spreads the heat around the surface. On a watt-for-watt equivalent, natural convection heaters put out just as much warmth, but you don't feel the intense heat as from a radiant design.

The third category, fan-forced heaters, relies on a blower to push air over the heating coils. Designed like a "mini furnace," these heaters must warm the air in the room to increase comfort. Unlike the natural convection style, they don't rely on a large surface area to transfer their heat to the air. A quick clarification — small fans are sometimes used in radiant heaters too, as a way to circulate the air. Don't let the presence of the fan fool you; if most of the heat radiates out from visible glowing coils, it's a radiant heater.



What does it all mean?

Each of the three designs described here uses a process called "electric resistance heating." Because all electric heaters use this same process, they all have the same efficiency—100 percent. There are no losses. Whatever the heater's shape or size, the amount of heat coming out is the same as the amount of electricity going in. Therefore, any two heaters with a rating of 1,500 watts on the nameplate will deliver the same amount of heat, no matter what they look like. To calculate the hourly cost of operating an electric heater, consider the following:

What is different about each heater is the method used to transfer the warmth from the heating elements to the person or objects that need it. Any of the three portable electric heater types can allow room-by-room variation in temperature. This zonal heating method can save energy, but only by lowering

the setting on the home's central heating thermostat. Then in the occupied room, a space heater is used to boost the temperature to a comfortable level.

If you wish to utilize electric heat, we encourage you to employ our load management system to shift on-peak usage to offpeak usage. If you have an automatic backup heating source or storage heat system, you could qualify for a reduced dual fuel rate. By utilizing this approach, you not only save money,

but you also help keep costs down by avoiding peak times.—

Source: National Food and Energy Council; Richard Hiatt, author



Regardless of their model and appearance, all electric space heaters, except ultra high-efficiency heat pumps, offer the same efficiency.

A (Amps) x V(Volts) = W(watts)

W(watts)/1,000) x (hours of use/day) x (number of days used) x (electric rate)

Example using 12.5 amp space heater

12.5 amps x 120 volts = 1,500 watts

1,500 watts/1,000 x 4 hours per day x 30 days x .1065/kwh = \$19.17/month



Member Appreciation Day

Kick-off to Co-op Month Celebration

Cooperative members came together on the morning of Saturday, September 24, for the annual Member Appreciation Day Pancake Breakfast/Kick-off to Co-op Month event. The pancake and sausage breakfast was just the beginning of the many activities that were available for members of all ages.

The kids enjoyed giant inflatables, pumpkin painting, and picture frame crafting (including their own pictures, to put in it). Memorial Medical Center participated with safety information, which included door prizes for the kids. They also provided health-screening information for the adults.

Greenwood EMS and Fire Department was on hand, with equipment

on display, to perform blood-pressure checks. The Greenwood Police Department was present to do a "Drug Take Back" event, which was very successful.

For the fourth year, a Food Drive for the local food pantry was included in the day's events, providing a great way to bring the 7th Cooperative Principle, Concern for Community, into this cooperative event.

CEO Tim Stewart was on hand to answer questions regarding the Community Solar Garden located just to the south of the cooperative's facility.

Clark Electric Appliance and Satellite was there with HVAC information as well as information on other products offered through the department.

Congratulations, Door Prize Winners!

Kids 12 and under were asked to guess the weight of a huge pumpkin. The actual weight was 178 pounds. MacKenzie Steen from Curtiss and Duane Aggerholm from Owen each received a gift card as winners of the kids' prize for having the closest guess.

Adults were asked to guess the weight of the concrete REA Emblem that was saved from the floor of the old office building entrance. The actual weight was 801 pounds. Caryl Solberg, Neillsville, was the winner of the gift card for having the closest guess.

Thank you to everyone who joined us for this year's event. We hope to see you again next year!















ENERGY ASSISTANCE AVAILABLE FOR QUALIFYING MEMBERS

The winter heating season has now begun. It's important for you to make every attempt to keep current on your electric bill. We understand that things do happen that put financial burdens on people. Certain government organizations can offer heating assistance or point you in the direction of a group that can help.

The Wisconsin Home Energy Assistance Program (WHEAP) administers the federally funded Low Income Home Energy Assistance Program (LIHEAP) and Public Benefits Energy Assistance Program. LIHEAP and its related services help more than 230,000 Wisconsin households annually.

Eligibility

You may be eligible for weatherization services if:

- You received benefits from WHEAP or your gross income for the last three months is equal to or less than 60 percent of Wisconsin's state median income (SMI) for your family size.
- Your dwelling/apartment has not been weatherized before.

 Your household meets certain priorities that may include a high energy burden or use, an elderly or disabled member or a child under six.

For more information and application details, please contact your local office:

Clark County715-743-5233

Department of Social Services

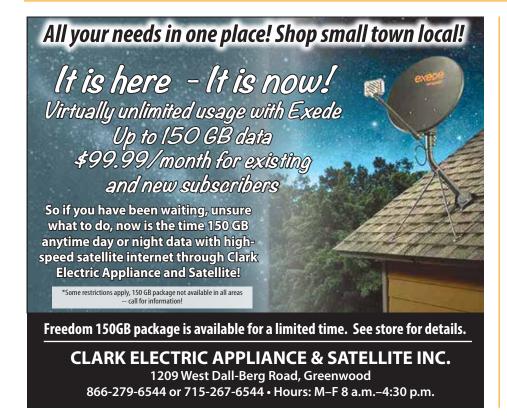
| Department of Social Services |
|---------------------------------------|
| Chippewa County 715-726-7862 |
| Department of Human Services/ |
| Economic Support |
| Marathon County 715-842-3111 |
| Energy Services, Inc. |
| Taylor County 715-748-6123 |
| Human Services Department |
| Wood County |
| Department of Social Services |
| Wisconsin Rapids office715-421-8600 |
| Marshfield office715-387-6374 |
| Jackson County 715-284-4301 |
| Department of Health & Human Services |
| |

To learn more or to locate your local agency, call toll free 1-866-HEATWIS (432-8947) or visit homeenergyplus. wi.gov. Other Resources for Energy

WHEAP Income Guidelines for the 2016–2017 Heating Season

| Household Combined Household Income | | | | |
|--|---------|----------|----------|--|
| Size | 1 Month | 3 Month | Annual | |
| 1 | \$2,181 | \$6,544 | \$26,174 | |
| 2 | \$2,852 | \$8,557 | \$34,228 | |
| 3 | \$3,524 | \$10,571 | \$42,282 | |
| 4 | \$4,195 | \$12,584 | \$50,336 | |
| 5 | \$4,866 | \$14,597 | \$58,389 | |
| 6 | \$5,537 | \$16,611 | \$66,443 | |
| 7 | \$5,663 | \$16,988 | \$67,953 | |
| 8 | \$5,789 | \$17,366 | \$69,463 | |
| | | | | |

and Weatherization Programs—CEC
Website: www.cecoop.com, click the
Bill Payment Tab and then the energy
assistant link; Focus on Energy Targeted Home Performance with ENERGY
STAR®: 1-800-762-7077 or visit www.
focusonenergy.com.; Keep Wisconsin
Warm Fund – Bill Pay Assistance:
1-800-981-WARM (9276) or visit www.
kwwf.org. (Source: Wisconsin Department of Administration Brochure)



REMEMBER THE REBATES!

Clark Electric Cooperative reminds its members that there are a variety of rebates available with the purchase of qualifying energy efficient products. Rebates are in place through December 31, 2016 or until funds are depleted.

Documentation must be completed and submitted no later than six months after purchase date, or recycle date, or by January 3, 2017, whichever date comes first.

Please submit rebate requirements as soon as possible to ensure that you can take advantage of our rebate program. Rebate forms and information are available online at cecoop.com.

Happy Thanksgiving!

Clark Electric Cooperative's office will be closed Thursday and Friday, November 24 and 25.



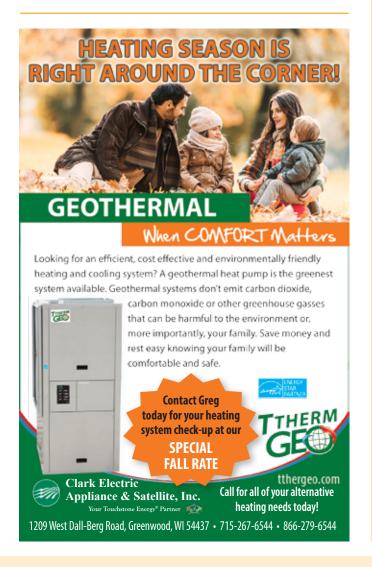


LOAD MANAGEMENT TEST SET FOR NOVEMBER 16

Each year, a test of the load management system is conducted for members of the Dual Fuel program. This year, the test will take place on Wednesday, November 16. The electric heat will be turned off at 5 p.m. and will be turned back on starting at 8 p.m., with everyone's electric heat scheduled to be back on by 10:30 p.m.

The test is done each year to ensure the cooperative's load management equipment is working properly and to allow members participating in the Dual Fuel program to make sure their backup heating systems are operational before winter sets in.

If you experience any problems during this test, or if you have any questions regarding the test, contact Clark Electric Cooperative, 714-267-6188 or 800-272-6188.





DAYLIGHT SAVINGS TIME ENDS NOVEMBER 6, 2016

If you are on our Time-of-Day Rate, you probably have a time clock controlling devices. Remember to switch the time clock on these devices back one hour as Daylight Savings Time ends on Sunday, November 6. It is important that your time clocks are reset to avoid using electricity during peak times, resulting in a higher-than-normal electric bill.

Clark Electric Cooperative's Time-of-Day Rate can save you money on your electric bill; however, you must be willing and able to shift your electric usage around so that you can utilize the lower cost of electricity.

For more information on incentive rates such as Timeof-Day or special heating rates, contact our office or visit our website at www.cecoop.com.

And remember to turn your clocks back one hour on November 6.

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