Tim Stewart, CEO/Manager

PORTABLE ELECTRIC HEATERS

Understanding how they work is key to using them effectively

Clark Electric Cooperative
Your Touchstone Energy® Partner

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 *(pictured at right)*. 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 *(pictured left)*, 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 *(pictured right)*, 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:

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 .1070/kwh = $19.26/month

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 off-peak usage. If you have an automatic backup heating source or storage heat system, you could qualify for a reduced dual fuel rate. With 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

DAYLIGHT SAVING TIME ENDS NOVEMBER 7

If you're on our Time-of-Day Rate, don't forget to change your time clock too!

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 7. 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 you can utilize the lower cost of electricity. For more information, contact our office or visit our website at www.cecoop.com.

DIRECTOR ODEEN EARNS DIRECTOR GOLD CERTIFICATION

For electric cooperatives to thrive in this time of change and uncertainty, it is vital that directors have a solid understanding of the electric cooperative business model. They must have a diverse set of knowledge and skills, up-to-date knowledge of industry changes, and a commitment to learn throughout their service on the board of directors.

The National Rural Electric Cooperative Association's Director Certificate Programs are specifically designed to help electric cooperative directors understand the complexity of a very challenging industry. The certification requirements consist of three parts:

Credentialed Cooperative Director Certification (CCD) – The CCD is a set of five courses that focus on basic governance knowledge and the essential skills required of cooperative directors. The CCD prepares directors to fulfill their fiduciary duty as elected officials serving on behalf of their membership.

Board Leadership Certification (BLC) – After completing the CCD, and as directors continue their board service, they need to stay current on industry issues and evolving expectations for governance. The BLC courses have been grouped into specialty areas such as power supply, finance, risk management, technology, and governance.

Director Gold Certification (DGC) – This credential recognizes directors who have earned their CCD and BLC credentials and are committed to continuing their education throughout their service on the board. To earn the DGC, a director must hold the CCD and BLC and earn additional credits from the Board Leadership Certificate series of courses.

Congratulations to Director Tom Odeen for earning the DGC Certification.

Clark Electric Director Tom Odeen earned NRECA's Director Gold Certification.

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 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 6.

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

Clark County 715-743-5233
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 office ...715-421-8600
Marshfield office.....715-387-6374

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 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)*

WHEAP Income Guidelines for the 2021–2022 Heating Season

(10/01/2021 through 9/30/2022)

60 percent of state median income guidelines

Household Size	One Month Income	Annual Income
1	$ 2,591.92	$31,103
2	$ 3,389.42	$40,673
3	$ 4,186.92	$50,243
4	$ 4,984.42	$59,813
5	$ 5,781.92	$69,383
6	$ 6,579.42	$78,953
7	$ 6,729.00	$80,748
8	$ 6,878.50	$82,542

LOAD MANAGEMENT TEST SET FOR NOVEMBER 17

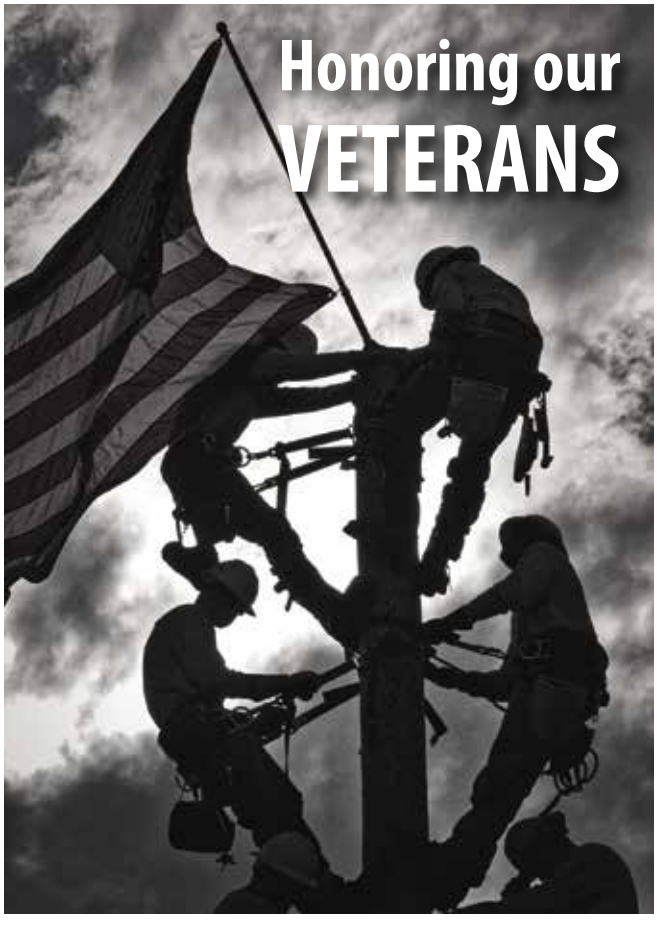
Please be advised that the Winter Preparedness Test for Interruptible Heat (Dual Fuel) Members is scheduled for **Wednesday, November 17**. This load control test is performed in advance of the winter Full Load Control season to ensure member familiarity with the control sequence and to ensure that backup heating systems have been validated for proper function.

During the test, residential Interruptible Heat load classes (2, 2W, & 4B) will be controlled as follows:

Time	Control Status
5:00 p.m.	Control start
5:05 p.m.	All loads interrupted (2,2W,4B)
8:30 p.m.	Class 4B loads restored
9:00 p.m.	Class 2 and 2W loads begin diversified restoral
10:00 p.m.	Class 2 and 2W loads fully restored

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

Clark Electric's office will be closed Thursday and Friday, November 25 and 26, for the Thanksgiving holiday.



Honoring our VETERANS

Each year in November we set aside Veterans Day to honor all the men and women who have served our country in uniform. We are especially thankful for those who gave the ultimate sacrifice so that we can enjoy the freedoms their service affords us in this great country of ours.

At Clark Electric Cooperative, we are grateful to have a veteran within our ranks. Wyatt Phillips served in the United States Army from 2013-2016. While serving, Wyatt supervised others in highly dangerous situations, constantly ensuring all were following strict safety precautions and still achieving the desired outcome. Wyatt earned a slot for a chance at Airborne and the Ranger Assessment and Selection Process for a chance to get into the Special Operations unit, the 75th Ranger Regiment. Applying hard work and doing the right thing, he was able to beat the odds of a 66% attrition rate and pass the grueling school.

We are proud to serve veterans and their families within our local community. In addition to providing safe, reliable, and affordable energy, we care for the veteran community and show our appreciation through our actions and ongoing commitment to them and their families.

We also partner with local charitable and business organizations in our service territory that support veterans and their families, such as the Highground Veterans Memorial Park in Neillsville. The memorial was built as a tribute to fallen veterans and as an honor to the surviving military personnel.

We are not alone in our efforts to honor and serve veterans. Clark Electric Cooperative is part of a network of more than 900 electric cooperatives across the country that support and honor our nation's veterans of all generations. As part of our national association of electric cooperatives, spanning 48 states and serving 13% of U.S. consumers, there are countless programs that our family of electric co-ops has initiated.

Clark Electric is proud to be a part of the electric cooperative network that honors and supports veterans of all ages, ranks, and branches of the military. Please join us in taking a moment to show your appreciation to a veteran—not just this month, but every month.

ILLUMINATE YOUR HOLIDAY SEASON WITH SAFETY

Don't let the bright and colorful sparkle of the season distract you from taking the precautions that you need to stay safe when decorating. Safe Electricity provides tips on safe holiday decorating.

If you are decorating with an artificial tree, make sure you choose one with fire resistance protection. With a real tree, make sure that the needles are green and sturdy with a trunk that is sticky with resin. These are indicators that your tree is well-hydrated. Keep your tree stand filled with water so that the tree does not become overly dry and present a fire hazard.

Never place your tree near heat-emitting devices, such as space heaters or radiators, which can become fire hazards. All lights should have a label indicating that they have been certified by an accredited independent testing laboratory.

Also make sure the lights are rated for the location in which they will be used—whether indoors or outside. Before hanging your lights, check the strands for broken bulbs as well as fraying or bare wires that could present electrical hazards. Always replace damaged products.

If you use an extension cord, never run it (or any other cord) under carpets, through doorways, or where they could be damaged by furniture. Also make sure it is rated for outdoor use if that is where you are using it.

When decorating outside, always be sure to look up and double check that you and any equipment, such as a ladder or a light strand, are a minimum 10 feet away from overhead power lines. When securing light strands, never staple or nail them into place, as this could damage the product.

Outdoor lights and decorations should be plugged into an outlet with ground fault circuit interrupter protection. GFCIs are inexpensive electrical devices that can be installed in a home's electrical system or built into a power cord to protect against electrical shock. A GFCI constantly monitors the flow of electricity through a circuit and will shut the circuit down if it senses a ground fault.

Be sure to turn off all lights before leaving the home or going to sleep. A timer can help you do this.

We hope your season will be merry, bright, and safe. For more information on electrical safety, visit SafeElectricity.org.

Clark Electric Cooperative

GIFT CERTIFICATES AVAILABLE

Need ideas about what to get that special someone for the holidays?

We all have someone on our shopping list who seems to have everything. How about giving them the gift of energy with a gift certificate from Clark Electric Cooperative? If they receive electric service from Clark Electric Cooperative, contact our Billing Department at 715-267-6188 or 1-800-272-6188 to obtain a gift certificate.

Tim Stewart, CEO/Manager
1209 West Dall-Berg Road, P.O. Box 190, Greenwood, WI 54437
email us at info@cecoop.com or tnelson01@cecoop.com
www.cecoop.com

Clark Electric Cooperative
Your Touchstone Energy® Partner