



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 (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:

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. 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

DAYLIGHT SAVINGS TIME ENDS NOVEMBER 5

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 5. 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 Time-of-Day or special heating rates, contact our office or visit our website at www.cecoop.com.



$$A \text{ (Amps)} \times V \text{ (Volts)} = W \text{ (watts)}$$

$$W \text{ (watts)} / 1,000 \times (\text{hours of use/day}) \times (\text{number of days used}) \times (\text{electric rate})$$

Example using 12.5 amp space heater

$$12.5 \text{ amps} \times 120 \text{ volts} = 1,500 \text{ watts}$$

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



Member Appreciation Day

Kick-off to Co-op Month Celebration

Once again, we were fortunate to have beautiful weather set the stage on the morning of Saturday, September 23, for the Annual Member Appreciation Day/Kick-off to Co-op Month Pancake Breakfast. The pancake, sausage, and egg breakfast was just the beginning of the many activities that were available for members of all ages.

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

Greenwood EMS and Fire Department were on hand with their equipment on display and performed blood-pressure checks. The Greenwood Police Department was present to do a “Drug Take Back” event, which was very successful.

For the fifth year, a Food Drive for the local food pantry was included; 132 pounds of food and monetary donations were collected. This is a great way to include the Seventh Cooperative Principle, Concern for Community, into this cooperative event.

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

CEO Tim Stewart and several of the directors were on hand to answer questions regarding the Community Solar Garden and visit with the members as they enjoyed the morning.

Kids 12 and under were asked to guess the weight of a huge pumpkin. The actual weight was 150 pounds. Lydell Sensenig, Curtiss, and Grace Elmhorst, Chili, each received a gift card as winners of the kid’s door prize 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!



Cooperation Among Cooperatives

Clark Electric crew responds to Florida's call for help

Clark Electric Cooperative responded to a call to assist Clay Electric Cooperative, headquartered in Keystone Heights, Florida, after Hurricane Irma hit that cooperative's service territory in early September. Clark Electric was one of 18 electric cooperatives from Wisconsin that assisted in the restoration of power in the aftermath of the hurricane.

ROPE, or Restoration Of Power in an Emergency, is a very unique program of co-ops helping co-ops. It is administered by Dairyland Power Cooperative on behalf of all of its member cooperatives. When a major storm rolls through a cooperative's service territory and causes extensive damage to its distribution system, that co-op can call Dairyland Power and activate the ROPE program. Dairyland Power will then go to work to find crews from other cooperatives unaffected by the storm to help restore power to the affected cooperative's sys-



Working in Florida in September to help restore power after Hurricane Irma were (from left) linemen Scott Bailen and Chad Steffen; Kevin Sterland, assistant line superintendent; and apprentice lineman Kole Hinker.

tem. Electric cooperatives typically have large service territories with a limited number of linemen to cover them, so it's nice to know help is just a phone call away through the ROPE program, said CEO/General Manager Tim Stewart.

Clark Electric Cooperative has sent crews to a number of other cooperatives in recent years including Washington

St. Tammany Electric Cooperative in Franklinton, Louisiana, after hurricane Katrina.

While Scott, Chad, Kevin, and Kole volunteered to respond to the latest call for help at Clay Electric Cooperative, every one of our linemen at Clark Electric stands ready to assist other cooperatives through the ROPE Program.

MORE THAN JUST A BLACK FRIDAY Sale



Black Friday deals throughout the month of November!

Twelve-month interest-free financing through Synchrony Bank. Free delivery.

Clark Electric Appliance & Satellite Inc.
1209 W Dall Berg Road
Greenwood, WI 54437
715-267-6544 • 1-866-279-6544

*Financing subject to Synchrony approval

LOAD MANAGEMENT TEST SET FOR NOVEMBER 15

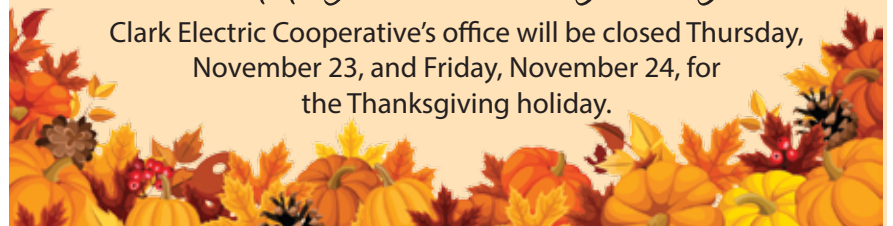
Each year, a test of the load management system is conducted for members of the Dual Fuel program. This year, the test will take place on Wednesday, November 15. The electric heat will be turned off at 5 p.m. and will be turned back on starting at 8 p.m., with everyone's electric heat scheduled to be 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 about the test, contact Clark Electric Cooperative, 714-267-6188 or 800-272-6188.

Happy Thanksgiving!

Clark Electric Cooperative's office will be closed Thursday, November 23, and Friday, November 24, for the Thanksgiving holiday.





CLOSING 2017'S INCENTIVE PROGRAM

Deadline Dates

Member deadline to submit 2017 incentives to the cooperative:

- Members must submit incentive application **within three months of purchase date** for measures that do not take a significant amount of time to install (appliance, conservation, and lighting measures).
- Members must submit incentive application **within three months of install date** for measures that take a more significant amount of time to install (water heaters, HVAC, C&I, and agricultural measures).
- Purchases and installs during the last three months of 2017:
 - o The three-month deadline described above also applies to year-end purchases and/or installs. For example, a measure purchased or installed on December 31, 2017, would qualify for an incentive until March 31, 2018. However, 2017 incentives submitted in 2018 will be treated as 2018 incentives:
 - Measures will not qualify for an incentive if the incentive is dropped in 2018.
 - Measures will qualify for the 2018 incentive amount if the incentive amount changes in 2018.
 - Measures will be reported as 2018 incentives.

IN BRIEF

Power prices climb in '17

Energy Information Administration (EIA) data released last week show residential electricity prices increased 3.1 percent on a nationwide average during the first half of 2017.

The U.S. average kilowatt-hour price was 12.8 cents.

The data is broken down by federal census divisions to reflect regional variation. The East North Central division, including Wisconsin, saw a lesser price increase than the national average, at about 2.5 percent.

The highest kilowatt-hour prices and largest percentage increase were both recorded in the Pacific division, at more than 25 cents and almost 7 percent, respectively.

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 learn how to obtain a gift certificate.



HEATING SEASON IS RIGHT AROUND THE CORNER!



GEOHERMAL

When COMFORT Matters

Looking for an efficient, cost effective and environmentally friendly heating and cooling system? A geothermal heat pump is the greenest system available. Geothermal systems don't emit carbon dioxide, carbon monoxide or other greenhouse gasses that can be harmful to the environment or, more importantly, your family. Save money and rest easy knowing your family will be comfortable and safe.



Contact Greg today for your heating system check-up at our **SPECIAL FALL RATE**



Clark Electric Appliance & Satellite, Inc.
Your Touchstone Energy® Partner

tthergeo.com
Call for all of your alternative heating needs today!

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