

CLARK ENERGY LINES

A publication of Clark Energy Cooperative, Inc., proudly serving our members since 1938.

Residential battery storage is the energy trend to watch

In this case, “battery storage” does not refer to the drawer where you put the extra AA batteries for your flashlight. Instead, it refers to an emerging energy trend. Batteries and battery storage are evolving much like the way LED bulbs and lumens have transformed how we light our homes.

What’s driving battery storage? Rooftop solar costs are dropping, and community solar options are increasing in popularity. In 2017, wind and solar electricity generation set a record by exceeding 10 percent of U.S. energy generation, according to the Energy Information Agency (EIA). News in the automotive world was dominated by announcements of major automakers stepping up production of electric vehicles (EVs), or in some cases, phasing out gas-powered engines altogether. As EVs gain popularity, charging stations are popping up in places of business and in other public spaces.

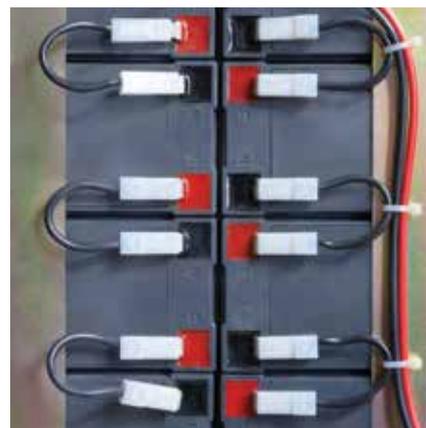
So what does this all mean? Consumers are clearly looking for more renewable energy options. But intermittent power from wind and solar sources creates a need for energy storage. This is where batteries come into play. An increase in research and

development in this energy sector is being driven by EVs and renewable energy trends.

While the current focus is primarily on commercial applications, the impact on residential use will eventually follow. We can see improvements in the energy efficiency of lithium-ion batteries. For example, phone, computer and other types of batteries/charging stations are holding their charge longer and powering more energy-intense devices. There are hundreds of lithium-ion batteries, all of which have different capabilities and voltages.

Does better battery storage mean you can go “off the grid” now?

While consumers using rooftop solar or other renewable energy sources have the most to gain, it’s not as easy as you would think to go off the grid completely. Powering the average consumer’s home, including HVAC systems, lights, appliances and the big screen TV, requires a tremendous amount of energy. Significant weather variation is another complicating factor. Going off the grid would require a solar array coupled with battery storage that is properly sized based on your energy



consumption. Because battery storage technology is evolving and battery banks are not widely available, it is still not yet cost-effective for the average consumer to purchase.

However, our energy advisor is knowledgeable when it comes to energy efficiency and energy choices. Talk to him about your options. If you decide to purchase an EV, let us know; your current electric service was designed and sized to meet consumers’ demand when the power lines were originally established and constructed.

As our energy needs evolve, look to Clark Energy for the information about energy trends and how to save energy.

From the President's Desk

Contact Us

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OFFICE HOURS

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**To report an outage, please call
(800) 992-3269.**

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Serenity, courage and wisdom

*God, grant me the serenity to accept the things I cannot change,
Courage to change the things I can,
And wisdom to know the difference.*

You've probably heard of or even said *The Serenity Prayer*. Written by American theologian Reinhold Niebuhr more than 80 years ago, it has been used and adapted by many people and for many reasons.

As we enter the heart of winter, this prayer could very well be applied to how our Clark Energy cooperative community prepares for and reacts to winter weather conditions. Perhaps we could adapt our own version:

*God, grant me the serenity to accept the weather,
Courage to prepare for unpredictable weather events,
And wisdom to respond, safely.*

Do we have the courage to prepare? Just as you make winter preparations in your own life and think of ways to use your energy wisely, Clark Energy plans year-round for unpredictable weather events which may affect electric service. That's why you see our crews clearing rights-of-way, so Clark Energy can respond to storm damage with minimal disruption of electricity while providing crews with safe access to the power lines.

To be able to safely respond to outages and other emergencies, Clark Energy also must maintain adequate training, staffing and infrastructure. We know you are counting us to light and heat your homes, especially when the inevitable winter storm hits.

It was 100 years ago, in December 1917 and January 1918, decades before Clark Energy even existed, when Kentucky experienced one of the harshest winters, ever. Forty-nine inches of snow combined with 40-mile-per-hour winds resulted in huge snow drifts and below freezing temperatures. Our parents and grandparents used fireplaces and stoves to combat the chill. If they were prepared, the wood was already cut to throw into the fire.

We have come a long way since then, but we still have just as little control over the weather.

I know better than to try to predict the weather, but I pray for all of us to have the serenity, courage and wisdom to handle it, together.



Chris Brewer, President & CEO

Light fixtures are the ‘jewelry of the home’

Light fixtures and lamps have evolved into more than a practical part of every room. Some designers now call them the “jewelry of the home.”

Tabletop lamps, wall-hung sconces and ceiling-mounted or recessed lighting are becoming as much a part of a home’s décor as its furniture.

Here are five trends that might spark some ideas as you replace light fixtures in your home:

- **Vintage.** They’re not old, but they look old. Some lamps and fixtures are charming, like the ones you remember from your grandmother’s home, while others are inspired by the design of a more industrial era, featuring start metals.
- **Bedazzled.** Sparkly and elegant,



CHRIS

chandeliers aren’t just for the dining room anymore. Homeowners are putting them in kitchens, foyers and bathrooms, too, to add a touch of elegance.

- **Pendants.** Hung over a kitchen

counter or dining table, pendant lighting—one or two lights hung on long wires from the ceiling—is taking the place of chandeliers in some homes.

- **Metallics.** As stainless-steel kitchen appliances continue to prove their staying power, silver, gold, brass and copper are trending in lighting. Fixtures with all-metal covers or glass globes adorned with metal accents are among the most popular.
- **Energy efficient.** LED fixtures now come in high-style models. Consider changing your old fixtures—the ones that require you to change the light bulb every so often—for one with built-in LEDs. You’ll save energy and time.

Protect your new electronics

Chances are good that you have an electronic item or two in your house that you didn’t have before the holidays. Did you get a new TV or computer? Are you doing all you can to protect that expensive equipment from danger during a power surge?

A power surge can fill a home full of large home appliances and electronics isn’t unusual. According to the National Electrical Manufacturers Association, any device with an on-off switch can cause a surge.

That impressive new entertainment system or the TV set that takes up a whole wall in your family room won’t be easy to replace if something goes wrong. Your best bet is to protect that equipment by connecting it to surge protection.

You can buy individual surge protectors for each piece of equipment, or you can invest in a whole-house surge protector. The devices typically come with warranties that cover up to \$50,000 worth of damage if

one of your appliances or electronic devices fails because of a surge.

Whole-house surge protective devices (SPDs) are typically wired to the electric service box and located nearby to protect all the appliances and electrical systems in a home. They are typically a \$200 to \$500 add-on.

The price of a whole-house unit often is less than the costs of replacing your huge TV screen or your computer equipment.



High school juniors—deadline fast approaching

Don’t forget ... Friday, February 23, is the last day applications will be accepted for the 2018 Rural Electric Youth Tour. Please submit to your counselor’s office, a Clark Energy office in Winchester, Stanton or Frenchburg, or have postmarked no later than February 23.

If you have questions, please contact Lois at (859) 901-9226 or by email at lhatton@clarkenergy.com.

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5 warning signs of an electrical malfunction



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1 Flickering lights. If an electrical circuit in your house is overloaded, it could cause the lights to dim or flicker. This usually happens

when you have too many energy-intensive appliances or fixtures wired to the same circuit. For example, your lights might flicker when your washing machine is running—if the two are on the same circuit. The solution: Ask a licensed electrician to move the lights to a different circuit or install a dedicated line for the washing machine.

2 Bad smells. It's not unusual for a new appliance to smell a little bit bad the first time or two you use it. But if outlets, your breaker box or other appliances emit a foul odor, that could signal a problem with the wiring. Unplug anything that doesn't smell right, and call an electrician.

3 Sparks. An appliance that sends off a spark could be damaged. Sparks from a breaker panel or fuse box could signal something more

serious. Get a qualified electrician to your house as soon as possible.

4 Tripped breakers. More than the occasional tripped breaker isn't normal, and it's probably not safe. Circuit breakers that trip signal that you've got a circuit overloaded. If the same appliances—like a hair dryer or a vacuum cleaner—trip the circuit every time, chances are that the appliance is the culprit. But if the same outlet trips the circuit no matter what you plug into it, it's likely an overload. This is a job for a professional.

5 A buzz. Electric appliances should not buzz. They shouldn't make any sounds. When they do, you might have a problem with an outlet or some wiring. An electrician can solve the problem.

Do not use space heaters without safety precautions

Nine members of a Muhlenberg County family died when the wall-mounted space heater they were using to stay warm on a frigid January night caused a fire.

Unfortunately, supplemental heating equipment like electronic or kerosene space heaters are the leading cause of home fires during the winter. Please use them with great care to avoid endangering the lives of those in your home.

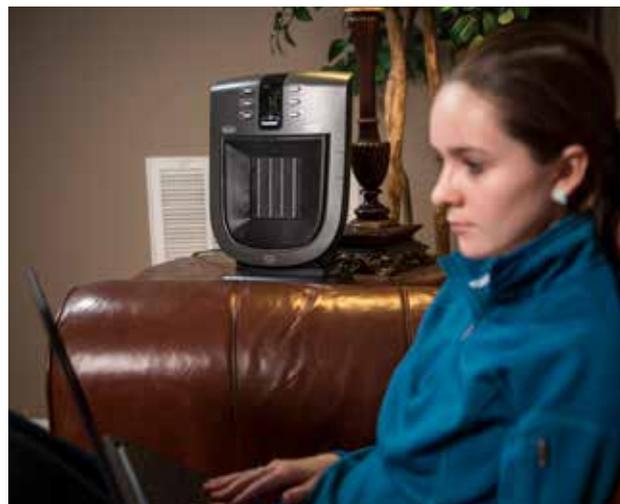
To prevent overheating, the cords should be plugged directly into a wall outlet and not into an extension cord.

It's a good idea to keep three feet of space clear all around a space heater. Especially keep anything

flammable outside this safety ring.

When you leave the room or go to sleep, turn off the space heater. You'll be much safer piling on extra blankets, and you can avoid the extra cost of running the equipment.

If you have pets or children, be especially cautious to keep them away from the equipment. Even the slightest contact with a heating coil or element can cause a severe burn.



TIM WEBB

Clark Energy wants to keep you and your family safe this winter and throughout the year.