THE VALUE OF ELECTRICITY: POWERING OUR LIVES AND FUTURE

By Tim Stewart, CEO/Manager

Electricity is an integral part of modern life, often taken for granted until an outage reminds us of its profound impact. From powering our homes to driving innovation, electricity is the lifeblood of contemporary society. This month I would like to explore the multifaceted value of electricity, highlighting its role in various sectors and everyday activities, as well as the associated costs and comparisons to other daily goods and services.

It seems that prices for about everything these days are increasing. The cost of rising energy prices is certainly on everyone's minds. It seems like every month we hear about issues ranging from supply chain, generation and transmission cost increasing, inflation, and tighter capacity in the Midcontinent Independent System Operator footprints. The cost of electricity can also fluctuate due to supply and demand, infrastructure investment, maintenance, and operational expenses. Weather patterns also contribute, affecting both demand and generation capabilities, with extreme conditions leading to heightened energy use, cost, and disruptions.

Electricity remains a good value.

All of this got me thinking about what the value of electricity really is. At Clark Electric Cooperative, the average rate is approximately 12 cents per kWh. But what is a kWh hour, how long does it last, and what does it do?

A kWh is a measure of electric use. Kilo stands for 1,000. For example, a kilogram is 1,000 grams. A kilowatt is 1,000 watts of electricity. So, a kilowatt-hour is 1,000 watts of electricity used for one hour of time. Let's take a look at lighting. Electric lighting extends our productive hours beyond sunset, enhancing safety and enabling activities like reading, working, and socializing after dark.

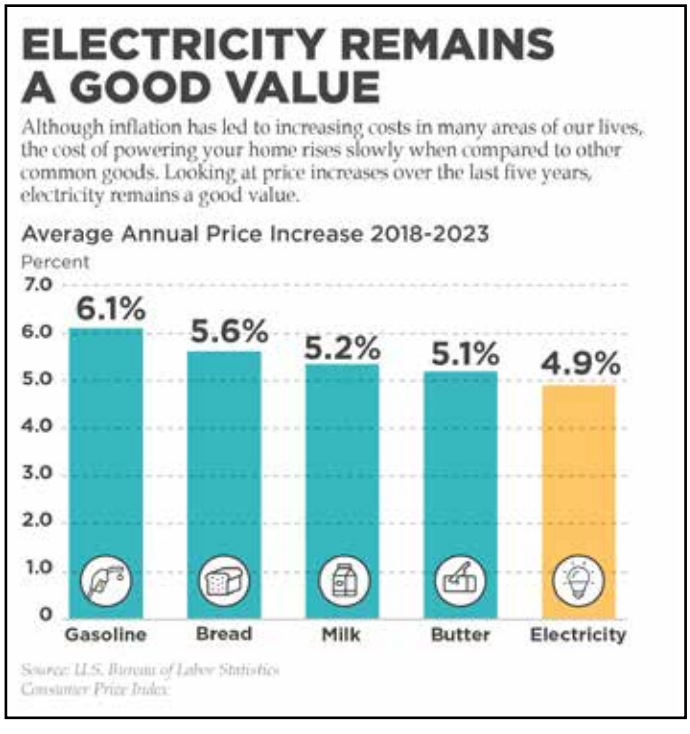
The cost of lighting can be managed by using energy-efficient LED bulbs, which, although more expensive upfront (around $5 per bulb), save money in the long run due to their lower energy consumption and longer lifespan. An old 100 watt light bulb uses 100 watts of electricity every hour it is on. So, if you left a 100-watt light bulb on for 10 hours, it would use one (1) kWh. The newer LED light bulbs (CFLs) use less electricity. A 25-watt LED bulb left on for 40 hours would use one kWh.

So, for 12 cents you get 40 hours of light if you turn it on four hours a day. That's 10 days of light. That's about a penny a day. What if you had 20 of these in your house? If you turned them all on for four hours a day, that would cost you about 24 cents a day. Twenty-four cents a day for all that light.

Let us look at some other appliances. Household appliances such as refrigerators, washing machines, and microwaves simplify chores, saving time and effort. These conveniences allow us to focus on other important aspects of life, such as spending time with family or pursuing hobbies. The cost of operating these appliances varies, with energy-efficient models often costing more initially but reducing electricity bills over time. A dishwasher uses approximately 2 kWh per day; that's about 24 cents per day. A side-by-side refrigerator uses approximately 4 kWh per day, which is only 48 cents per day to keep your food cold/frozen. A coffee maker uses 1-2 kWh per day, again 12 to 24 cents per day. An electric water heater with a family of four uses approximately 15 kWh per day. That is about $1.80 per day for hot water.

Let us talk about entertainment. In the digital age, electricity is the backbone of communication and connectivity. Here are some ways it impacts this sector:

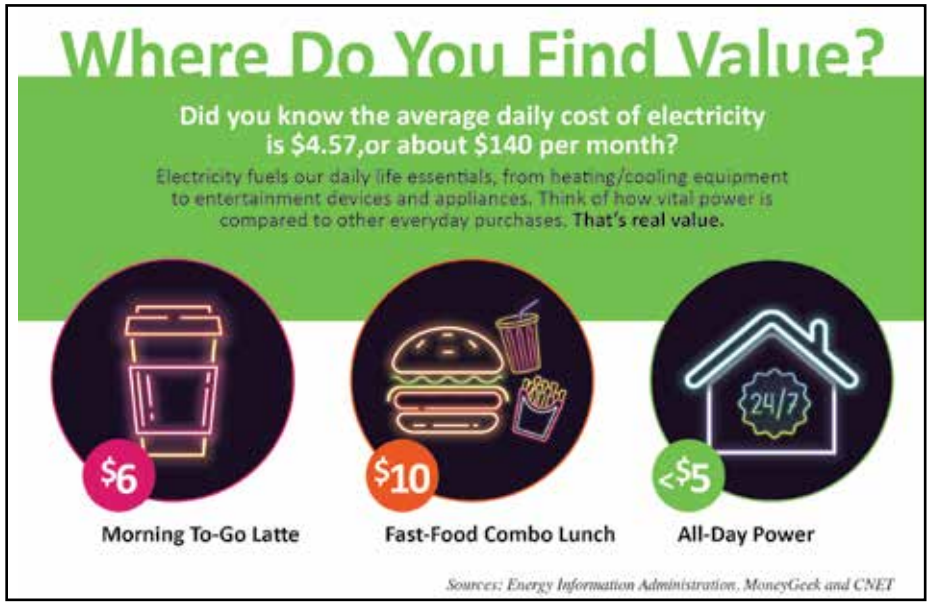
A 42" LCD television will use 1-2 kWh per day. That is about 12 to 24 cents per day. Streaming services, online gaming, and digital media platforms provide entertainment and information to millions. These services require a continuous power supply to deliver content seamlessly. The cost of electricity for home entertainment systems can add up, with devices like gaming consoles and large-screen TVs contributing to higher energy bills. For example, running a gaming console for



an hour costs about 5 cents, which is less than the cost of a song download.

The internet, which connects people globally, relies on electricity to power servers, data centers, and network infrastructure. This connectivity enables remote work, online education, and instant communication through emails, video calls, and social media. Data centers are significant electricity consumers, with some facilities using as much electricity as small towns. The cost of electricity for these centers can range from 5 cents to 15 cents per kWh, which is comparable to the cost of a single text message.

Let us look at all this another way. If an average residential house uses 1,000 kWh per month, that would be approximately $5.33 per day (1000 kWh X .12 cents + $40 fixed charge = $160 / 30 days = $5.33 cost per day). A morning latte is around $6.00, fast food is easily over $10 per meal, and a Netflix subscription is around $16 each month. In today's world, you will not find a better value to meet our daily needs than electricity.



Electricity Drives Economic Growth

Electricity is a cornerstone of economic development, powering industries and businesses that create jobs and generate wealth. Here are some examples:

- **Manufacturing:** Factories rely on electricity to operate machinery, assemble products, and manage quality control. This sector produces goods ranging from automobiles to electronics, contributing significantly to the economy.
- **Technology and Innovation**: The tech industry, which includes companies developing software, hardware, and digital services, depends on reliable electricity. Data centers, which store and process vast amounts of information, require continuous power to function effectively. The cost of electricity for commercial users averages around 10.65 cents per kWh in the U.S., which is comparable to the cost of a single text message.
- **Small Businesses:** Local businesses, such as restaurants, retail stores, and service providers, use electricity for lighting, heating, cooling, and operating essential equipment. Reliable power supply ensures these enterprises can serve their customers efficiently.

Advancing Healthcare

Electricity is vital in the healthcare sector, where it supports life-saving equipment and enhances patient care. Consider these examples:

Hospitals and clinics use electrically powered devices such as MRI machines, ventilators, and infusion pumps. These technologies are essential for diagnosing, treating, and monitoring patients. Ambulances and emergency rooms rely on electricity to power critical equipment, ensuring timely and effective responses to medical emergencies. The cost of electricity for healthcare facilities can be substantial, hospitals can spend an average of $365 per day for everything they do.

Research and Development: Laboratories conducting medical research depend on electricity to operate sophisticated instruments and maintain controlled environments for experiments. This research leads to medical advancements and improved treatments.

I urge you to think about your daily necessities (housing, electricity, and gasoline, to name a few), and then think about the cost of some of the other items such as fancy latte coffee drinks or a stop-by at a fast-food restaurant. We often do not question the cost of these items, with many of them costing more for that single item than it does to purchase an entire day's worth of electricity. If at times it doesn't seem that electricity is affordable, remember, even as demand for electricity grows, annual cost increases still remain low, especially when compared to the rising prices of other commodities, such as medical care, education, rent, groceries, coffee drinks and even hamburgers from a fast food restaurant. Remember electricity cools and heats our homes, cooks our meals, pumps and heats our water, powers our computers, provides lighting, cleans our clothes, milks cows, and offers a host of other labor-saving applications. Electricity powers items such as TVs, VCRs, DVDs, stereos, gaming consoles, shopping centers, restaurants, and casinos. When you stop and think about what all electricity does and the true value that it holds. Electricity provides exceptional value for the cost. Electricity—where would we be without it…….

JONAH VIRCKS REPRESENTS WISCONSIN AT NRECA POWEREXCHANGE: REFLECTS ON JOURNEY

Jonah Vircks of Clark Electric Cooperative was selected to represent Wisconsin at the 2025 NRECA PowerXchange in Atlanta. Jonah, who is a junior at Loyal High School, participated in many activities which included meeting with the NRECA Board, multiple leadership seminars, breakout sessions, and other professional skill-building opportunities. He attended dinners and meetings with co-op leaders and attended the TechAdvantage Expo and PowerXchange general sessions, including a presentation by Daymond John of ABC's Shark Tank. Here are some things Jonah had to say about his experience:

"*This whole experience has been invaluable to me in my journey and deepened my understanding and appreciation of co-ops and the people who make them so great. I got an inside look at how a co-op runs at a national level, and it showed me why I want to continue my journey in the co-op world. The people that I met at PowerXchange inspired me about the future and gave me great life advice. After this trip I have a better understanding for the cooperative model firsthand, I have unforgettable memories and friendships, and found many people with the same ambition and values as me.*

I made so many friends that I will never forget about. More than anything, the people on this trip had the same intent and purpose as I do. It was amazing to see so many future leaders and grow my network. I have a friend from every state, that is something only a few young people can say.

The value of this opportunity can't be understated. I will take the lessons, experiences, and the networks I made on the Wisconsin YLC board, on Youth Tour, and from PowerXchange with me forever. Everyone should learn about the values of a co-op and this is the opportunity to do it. However, youth that can get involved in the co-op world will benefit the longevity and future of co-ops forever.

My favorite part of the event was walking around the conference center's expo and meeting with hundreds of hardworking business professionals. During the expo I met and had conversations with members of co-ops from all over the country, as well as heard many inspirational and practical words of wisdom. Who knows, maybe one of the connections I made will land me a job or an internship?

Without Clark Electric, I would not have had these amazing experiences, from Youth Tour in Washington, D.C. to PowerXchange in Atlanta. Thank you's do not fully express what this opportunity means to me, nonetheless, I want to thank Clark Electric for providing me with the opportunity to represent my state, my community, my family, and myself on such an amazing opportunity."

SAVE THE DATE

CLARK ELECTRIC COOPERATIVE'S ANNUAL MEETING

May 21, 2025

Neillsville American Legion

Business meeting starts at 9:30 a.m.

ENERGY EFFICIENCY
TIP OF THE MONTH

Routine maintenance is important to keep your refrigerator running efficiently. Lint and dirt should be cleaned from the refrigerator coils every six months to a year, and more often if there are pets in the home.

When coils are coated with lint, dust or pet hair, your refrigerator works harder than it's designed to, which can prevent the appliance from cooling properly and efficiently. The additional work can increase the energy costs of the refrigerator by as much as 35% and shorten the life of the appliance.

Source: energy.gov

MAY IS ELECTRICAL SAFETY MONTH

At Clark Electric Cooperative, we recognize Electrical Safety Month every May, but we also know the importance of practicing safety year-round. From our co-op crews to you, the members we serve, we recognize that everyone has a part to play in prioritizing safety.

According to the Electrical Safety Foundation International, thousands of people in the U.S. are critically injured or electrocuted as a result of electrical fires and accidents in their own homes. Many of these accidents are preventable. Electricity is a necessity, and it powers our daily lives. But we know firsthand how dangerous electricity can be because we work with it 365 days a year.

Electricity is an integral part of modern life. Given the prevalence of electrical devices, tools and appliances, here are a few practical electrical safety tips to keep you and your loved ones safe.

Frayed wires pose a serious safety hazard. Power cords can become damaged or frayed from age, heavy use, or excessive current flow through the wiring. If cords become frayed or cut, replace them, as they could cause a shock when handled.

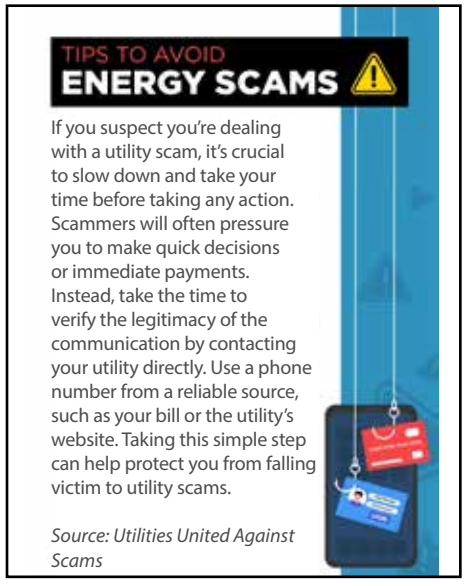
Avoid overloading circuits. Circuits can only cope with a limited amount of electricity. Overload happens when you draw more electricity than a circuit can safely handle—by having too many devices running on one circuit.

Label circuit breakers to understand the circuits in your home. Contact a qualified electrician if your home is more than 40 years old and you need to install multiple large appliances that consume large amounts of electricity.

Use extension cords properly. Never plug an extension cord into another extension cord. If you "daisy chain" them together, it could lead to overheating, creating a potential fire hazard. Don't exceed the wattage of the cord. Doing so also creates a risk of overloading the cord and creating a fire hazard. Extension cords should not be used as permanent solutions. If you need additional outlets, contact a licensed electrician to help.

We encourage you to talk with your kids about playing it safe and smart around electricity. Help them be aware of overhead power lines near where they play outdoors.

Our top priority is providing an uninterrupted energy supply 24/7, 365 days per year. But equally important is keeping our community safe around electricity.



Tim Stewart, CEO/Manager

1209 West Dall-Berg Road
P.O. Box 190, Greenwood, WI 54437
email us at info@cecoop.com or mwalde@cecoop.com
www.cecoop.com

Clark Electric Cooperative
Your Touchstone Energy® Partner

Office Hours:

November through April—7:30 a.m.–4:00 p.m.
May through October— 7:00 a.m.–3:30 p.m.