

Since 1940

WISCONSIN ENERGY *Cooperative* August 2023 NEWS



**BRINGING ELECTRICITY
TO THE NAVAJO NATION**

TEACH YOUR CHILDREN WELL

WE'VE GOT YOU COVERED!

NO HEAT RECIPES





RATES AFFECTED BY DEMAND AND CONSUMPTION

by Craig Buross, CEO & General Manager



“Demand” is an important word in terms of electricity use, but not until recent years has it become a focal point for both electric utilities and their consumers. Demand is the amount of electricity, measured in kilowatts (kW), a member requires at a single moment in time to turn on a device. “Consumption” is a term most residential ratepayers are familiar with; this is the amount of electricity a member uses over a period of time, measured in kilowatt-hours (kWh). While consumption and demand are both measurements of electricity, they are very different. Electricity must be generated at the time it is used, and generation resources must be able to meet the demand on the entire electric grid at any moment in time. As more baseload generation plants close and energy is replaced with intermittent sources, it has become important for

Electricity must be generated at the time it is used, and generation resources must be able to meet the demand on the entire electric grid at any moment in time.

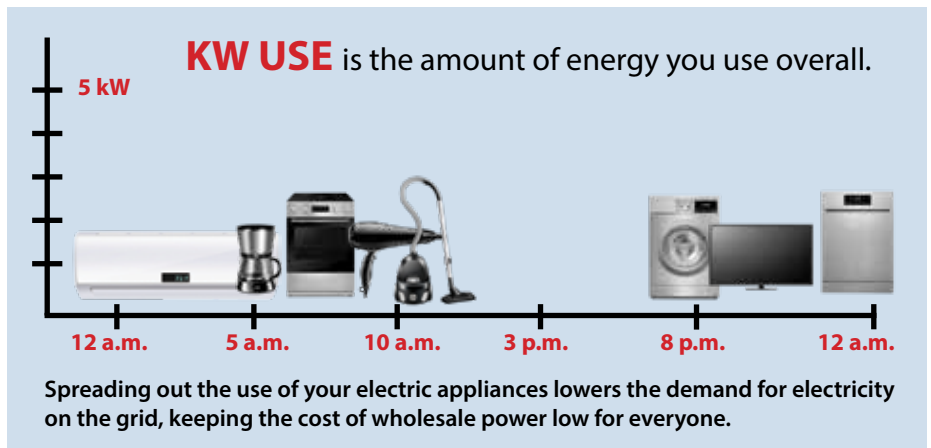
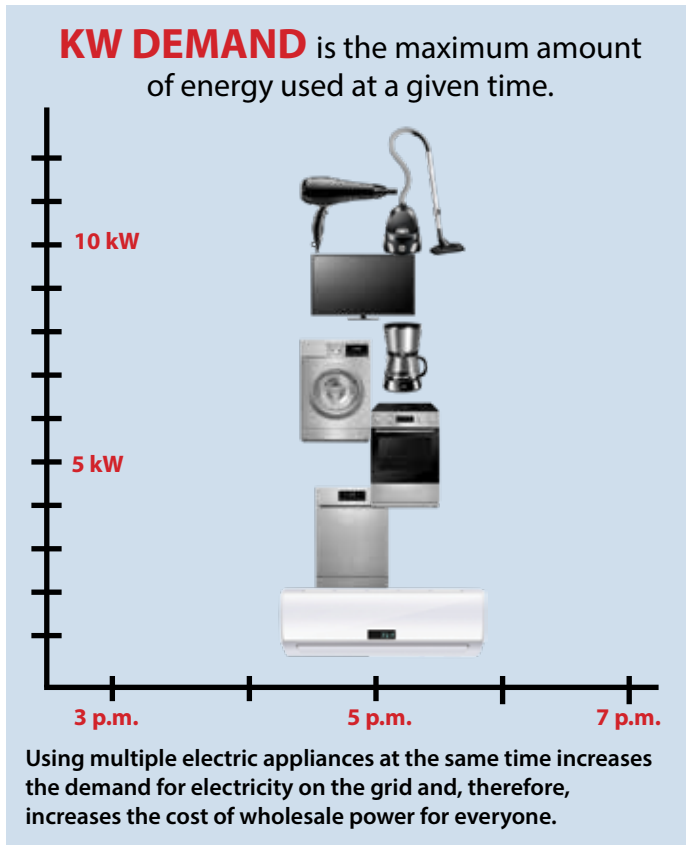
consumers to understand how their individual electricity demand affects the complex electric grid.

Increased quality of life and better living conditions are aided by access to affordable electricity. We have grown accustomed to the pleasures of electric lights, central air and heat, hot water, dishwashers, stoves, washing machines, and dryers. But what would your initial response be if they were shut off for a long period of time? For years, rolling blackouts have occurred along the West Coast, but it wasn't until recent years the Midwest faced the real threats of electric load curtailment. The region's grid operator, Midcontinent Independent System Operator (MISO), has warned of potential capacity shortfalls due to the amount of energy we consume compared to the amount of energy produced.

Energy demand directly coincides with our lifestyle. For example, after work or school, we return home to wash clothes, do dishes, take showers, lower the house temperature in the summer or raise it in the winter. Vernon Electric Cooperative has approximately 10,000 members, and hypothetically speaking, if every member had the same schedule, one could see how the call for energy (“demand”) would be extremely high, potentially creating a shortage.

In Wisconsin, we have what are considered “shoulder months.” Shoulder months are the months after winter before summer or after summer before winter. Although these months generally will not affect how members wash clothes or do the dishes, they do affect heating and cooling. The windows are

Continued on page 18



WILDCAT MOUNTAIN STATE PARK: *Enjoy the View*

By Leah Call

Wisconsin's Driftless Region is one of the most scenic areas in the country. For Vernon Electric Cooperative members, who call this beautiful region home, it's easy to take that for granted. If you ever need a reminder, just take a trip to Wildcat Mountain State Park near Ontario.

Celebrating its 75th anniversary, this 3,600-acre state park overlooking the Kickapoo River Valley offers hiking and horseback trails, campgrounds, and jaw-dropping views.

It's those views that make Wildcat Mountain State Park stand out in the state park system. One viewing point, the Taylor Hollow Overlook, is easily accessible and wheelchair friendly. Other views can be reached on the park's 25+ miles of trails. "We have about five-and-a-half miles of hiking trails just for hiking and another 17 miles of trail that you can hike or ride horseback on," said Park Manager Christina Lake.

The park's equine-friendly policy also sets it apart from other parks. "There aren't many properties within the state park system that offer horse camping and horse trail riding," noted Lake. "That is unique to us."

One of the park's two campgrounds has 24 sites dedicated to those staying overnight with their horses. The other is a family campground with 44 sites, nine of which have electric hookups powered by Vernon Electric Cooperative. Both campgrounds typically fill up every weekend from Memorial Day to Labor Day and exceed 50% capacity during the week. Lake advises campers make reservations in advance to ensure a spot in the campground.

Hiker's Paradise

Because of the elevation, most trails at Wildcat are ranked moderately difficult. Embedded within the park is a State Natural Area called Mt. Pisgah Hemlock Hardwoods State Natural Area, established in 1952. The Hemlock Nature Trail passes through the natural area, where hikers can wander through groves of 400-year-old white pines. At the pinnacle of the level 5 mountaineering climb, hikers are rewarded with breathtaking panoramic views from 1,220 feet above sea level.

"We just completed a reroute for that trail due to storm





damage in 2018,” said Lake. “So we are excited that trail is open again for the first time in five years.”

The trail reopen happened thanks to the dedication and hard work of the Friends of Wildcat, who secured a grant that covered 50% of the reroute costs. The group’s ongoing work includes rounding up volunteers to lend a hand at park workdays to clean and maintain the campgrounds and trails, remove invasive species, and assist park staff in building various features in the park .

Wildcat Mountain State Park is open year-round. Winter hikers can marvel at the frozen waterfall formation at the end of the Ice Cave Trail, a short there-and-back trail that is equally as stunning in warm weather.

Events Under the Sky

Wildcat Mountain State Park offers nature-focused programming throughout the year. Upcoming programming includes:

- **August 4** – Shakespeare in the Park performance of Macbeth
- **August 5** – Geology Hike on the Hemlock Trail
- **August 12** – Astronomy program by Northwest Suburban Astronomers
- **September 16** – Wildcat 75th anniversary celebration – Free admission – run/walk, food, drink, educational presentations.
- **October 8** – Moonlight Hike and Stargazing

Attend the Moonlight Hike or astronomy programs offered throughout the year to view the night sky free of light pollution. “Wildcat, Kickapoo Valley Reserve and the Mississippi Conservancy are currently working together to designate a total of 13,300 acres—which is combined Wildcat, KVR and Tunnelville Cliffs—as Wisconsin’s second International Dark Sky Park,” noted Lake. “People can come here and camp and be able to see the stars and the Milky Way, depending on the time of year.”

Camping, trail, and event details are available on the park’s website and Facebook page.



Demand and Consumption Continued from page 15

open more often, and the air conditioning or heat is turned off, thus reducing the amount of energy demand. Historically, demand during these months has not been a concern, but we are seeing that change, as this is the time that utilities are able to shut down baseload plants for maintenance. Generation warnings from MISO during these shoulder months have become more prevalent over the past few years, especially during times of low wind generation.

Then we have peak months like warm August. As the temperature rises, people turn on their air conditioners to seek relief. Although we have been utilizing air conditioners since June, they will work harder to keep the temperature comfortable in August due to prolonged heat. Residential and commercial buildings heavily rely on cooling systems, which account for a substantial portion of electricity consumed during this period. Energy demand soars as units draw considerable power to maintain indoor temperatures.

In the July issue of this magazine, we introduced a pilot program dedicated to electric vehicle (EV) charging. EVs require a large amount of energy to charge and are another amenity that increases the demand for energy. Manufacturers of EVs include a Level 1 charger with the purchase of their vehicle, but unfortunately, the Level 1 charger, which plugs into a standard outlet, is the slowest form of charging. This does not result in a significant energy demand; however, most people will upgrade to a Level 2 charger to increase their charging rate, thus creating more energy demand. Our new pilot Time-of-Use EV charging rate coincides with the cost of energy during certain times of the day but does not restrict members from charging when they wish. The new rate allows members to save money by charging at times when the cost of energy is at its lowest. Currently that is during the late-night hours because the demand for energy is low.

Vernon Electric members can participate in the load management program, which helps curtail the amount of demand on the system during peak hours by utilizing a load control device. The load control device, often connected to air conditioners, electric heat, and water heaters, receives a signal from Dairyland Power when there is a need to lower energy consumption. The receiver will turn off the power to the connected appliance for a few hours and will be restored when the system demand is lower.

While load control devices are a hands-off approach to

helping reduce demand during peak times, members can also voluntarily reduce their demand by shifting energy use. You may have heard our radio ads playing during peak alert periods or seen the peak demand image on our Facebook page. Following our Facebook page is a great way to stay informed about our peak alert periods or you can sign up to receive text notifications. We will generally receive notice from Dairyland a few hours before a predicted peak event, which allows us time to inform our members so they can make preparations, if needed. You can help lower the demand on the electric grid by turning off items using electricity or waiting until later in the evening to use those items. These items could include your dishwasher, lights, air conditioner, washer, dryer and/or dehumidifier. Shifting energy use away from peak times saves the cooperative money on demand charges and as a not-for-profit electric cooperative, those savings help keeps your rates stable.

We are currently seeing a number of electric providers consider adjustments to their rates to better reflect the cost of demand. One method has been moving to a three-part rate that

has a base facility charge, energy charge (kWh), and a demand charge (kW). It pulls the demand component of the bill out of the energy charge and puts it as a separate line item, which better reflects the cost of providing electric service.

Time-of-use rates are another option that has been gaining traction throughout the utility industry as they allow opportunities for consumers to save money by shifting electricity use and their demand away

from peak times. These rate models encourage consumers to reduce their energy consumption during peak periods, alleviating stress on the grid. It is worth noting that Vernon Electric does not currently have these rate options in place for residential ratepayers but is exploring time-of-use rates through the EV charging pilot program and demand-based rates with commercial and industrial consumers.

As warm August weather triggers a surge in energy demand while residents strive to beat the heat, increased demand puts pressure on the electric grid and prompts utilities to adjust their pricing models and implement demand management strategies. As we continue to face the challenges of growing energy needs, it becomes increasingly important to find innovative solutions that balance the demand for electricity with environmental sustainability. By understanding the complex relationship between energy demand and weather patterns, electric cooperatives and their members can adapt and evolve to meet the changing energy environment, even during the hottest days of August.

Shifting energy use away from peak times saves the cooperative money on demand charges and as a not-for-profit electric cooperative, those savings help keeps your rates stable.

Craig Buros, CEO & General Manager

110 Saugstad Road, Westby, WI 54667

608-634-3121 • 608-447-5051

email: info@vernonelectric.org

website: www.vernonelectric.org

Trevor Clark, Editor

