Clinton County Connection

Your Touchstone Energy® Cooperative

Published by Clinton County Electric Cooperative, Inc. • cceci@cceci.com • www.cceci.com

What really drives summer electric demand and the myths that come with it

Bob Kroeger
President/COO

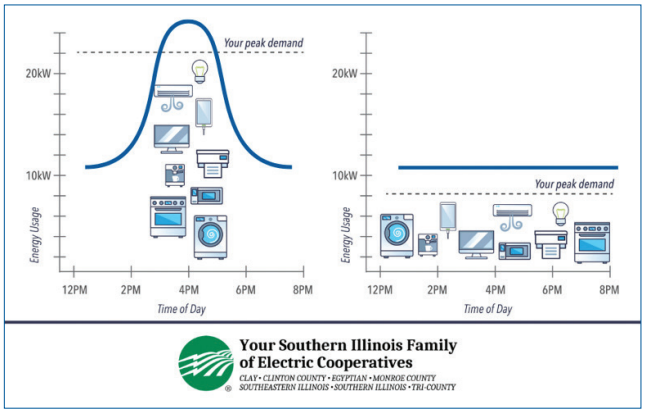
When temperatures climb in southern Illinois, electricity use rises quickly. Air conditioners run longer, fans operate continuously, and households rely more heavily on appliances that keep homes comfortable.

For Clinton County Electric Cooperative (CCEC), summer is typically when the electric system experiences its highest demand of the year. Understanding what drives that demand — and clearing up some common myths about it — can help members better understand how the electric system works and why CCEC is preparing to transition to a cost-based rate structure that includes both energy and demand beginning in 2027.

What actually drives summer electric demand

The single largest contributor to summer electric demand is air conditioning.

When temperatures climb into the 90s and humidity rises, thousands of cooling systems across the cooperative's service territory begin operating at the same time. Each individual air conditioner may use only a few kilowatts of electricity, but when thousands of homes and businesses run them simultaneously, the total demand on the system rises rapidly.



This is why electric systems across the Midwest often experience their highest usage during hot summer afternoons. However, temperature alone does not determine electric demand. Humidity also plays an important role.

High humidity makes cooling systems work harder because air conditioners must remove moisture from the air while also lowering the temperature. As a result, cooling systems run longer and more frequently, increasing overall demand on the electric system.

Time of day matters

Summer peaks usually occur during the late afternoon or early evening.

During this time several factors overlap:

- Outdoor temperatures are near their highest.
- Air conditioners are running continuously.
- Members return home from work.
- Cooking, laundry and other household activities increase electricity use.

When these activities occur simultaneously across thousands of homes and businesses, demand on the electric system rises sharply.

Large appliances running at the same time

Air conditioning is the largest driver, but other appliances also contribute to summer peaks when they operate at the same time.

Examples include:

- Electric water heaters
- Clothes dryer

Continued on 18B ▶

Summer electric demand continued from 18A

- Electric ovens and ranges
- Pool pumps
- Electric vehicle chargers

Individually, these loads may not seem significant. But when thousands of members operate them during the same hour, the combined impact can be substantial.

Why this matters to CCEC and SIPC

CCEC delivers electricity to homes and businesses throughout Clinton County and the surrounding area, but the cooperative purchases its power from Southern Illinois Power Cooperative (SIPC). Like most generation and transmission cooperatives, SIPC's wholesale power costs are driven not only by how much electricity is used over time, but also by when it is used and how much power is needed at the same time across the entire system.

This concept is known as **coincident peak demand**.

The coincident peak is the single hour when electricity demand is highest across SIPC's entire system. During that hour:

- Power plants must be available and operating.
- Transmission lines must carry the load.
- Substations and transformers must handle the demand.

Even if that peak occurs for only a short time, the electric system must be built large enough to serve it. That peak demand plays a major role in determining the cost of power purchased by CCEC.

Why CCEC is transitioning to cost-based rates

Historically, CCEC's retail rate structure has primarily recovered costs through energy charges based on kilowatt-hours. However, today a significant portion of the cooperative's wholesale power costs from SIPC are driven by demand and coincident peak usage, not just energy consumption.

Beginning in January 2027, CCEC will transition to a cost-based rate structure that includes both energy and demand.

This change is designed to:

- Align retail rates with how CCEC is billed by SIPC.
- Improve fairness by assigning costs based on how members use the system.
- Reduce cost shifting between members.
- Provide better price signals that encourage efficient use of the electric system.

Advances in Automated Metering Infrastructure (AMI) now allow CCEC to identify each member's contribution to peak demand on a monthly basis, making it possible to more accurately assign those costs.

How member behavior influences peak demand

While no single member determines when the system peak occurs, the combined actions of thousands of members do. Small changes in usage patterns, particularly early morning or late afternoon, can reduce stress on the electric system and help control long-term costs.

Examples include:

- Raising the thermostat a few degrees during peak hours.
- Running laundry or dishwashers later in the evening.
- Charging electric vehicles overnight.
- Avoiding simultaneous use of multiple large appliances during peak periods.

When many members make small adjustments, the combined effect can reduce peak demand across the entire cooperative system.

The bottom line

Summer electric demand is primarily driven by air conditioning and the simultaneous use of appliances during hot weather. For CCEC and SIPC, the highest demand hour — known as the **coincident peak** — plays a major role in determining the cost of providing electric service.

As CCEC prepares to transition to a cost-based rate structure in 2027, helping members understand how electric demand is created and how it affects system costs is an important part of ensuring fairness, transparency and long-term affordability for the cooperative and its member-owners.

Looking ahead

Understanding how CCEC is billed by SIPC and how CCEC's costs are created is an important step in understanding why CCEC is transitioning to a cost-based rate structure.

In upcoming articles, I will continue to share examples, practical tips and additional details about how the new rate structure works.

As always, CCEC remains committed to open communication, transparency and fair and reasonable rates that serve the long-term interests of the membership.

In next month's ICL article, I'll discuss what impacts member demands during the summer months and some of the myths about demand rates.

If you have questions in the meantime, please contact our office at 800-526-7282.

Common myths about summer electric demand

Myth #1: Electricity use is the same throughout the day.

Reality: Electric demand changes dramatically throughout the day.

Usage rises and falls depending on temperature, weather conditions and human activity. The system must be designed to serve the highest-demand hour, not the average hour.

Myth #2: One large customer causes the peak.

Reality: Summer peaks are usually created by many small loads operating simultaneously, not a single large user.

Thousands of homes running air conditioners and appliances at the same time create a much larger impact than any single individual load.

Myth #3: The total amount of electricity used is the only thing that matters.

Reality: Timing matters just as much as total energy use.

Electric energy (measured in kilowatt-hours) tells us how much electricity is used over time. But electric demand (measured in kilowatts) reflects how much power is needed at a specific moment.

The electric system must be built to handle the highest level of demand.

Myth #4: Summer peaks last all day.

Reality: The system peak often lasts only one hour, but the infrastructure required to serve that peak must exist all the time.

Power plants, transmission lines, substations and transformers must all be sized to meet that moment of highest demand.

Mark your calendar

Clinton County Electric Cooperative, Inc. will host the 2026 Annual Meeting of the membership on Thursday, Aug. 20, 2026. The nomination procedure for those interested in running for a spot on the board is published on page 18D.

ENERGY EFFICIENCY
TIP OF THE MONTH

During these warm summer months, a smart thermostat can help keep your home comfortable while reducing cooling costs. Smart thermostats learn your routine and automatically raise the temperature when you're away and cool things down before you return, avoiding unnecessary energy use. You can also adjust settings remotely from your phone, so you're never cooling an empty house. Setting your thermostat a few degrees higher while you're away or asleep can lead to significant savings. Many smart thermostats provide reports and tips, helping you fine-tune your energy use and stay cool while keeping your electric bill in check.

Bylaws specify nomination procedure

Section 4.06. Nominations. It shall be the duty of the Board of Trustees to appoint, more than ninety (90) days before the date of a meeting of the members at which Board trustees are to be elected, a committee on election and credentials consisting of not less than five (5) nor more than nine (9) members with at least one (1) member from each district from which a trustee is to be elected. No employee, trustee, Officer, known candidate, or close relative (as hereinafter defined) of any of the above may serve on such committee. The purpose of the committee is to review the qualifications of petitioning nominees and to conduct the election of trustees. To be nominated by petition, a candidate for trustee must file a petition for nomination signed by at least twenty-five (25) members, but not more than fifty (50) members. Signatures may come from the entire Cooperative membership. A joint membership constitutes only one member. Nominations by petition must be picked up and filed not more than ninety (90) days or less than forty-five (45) days before the date of a meeting of the members at which trustees are to be elected. The Election and Credentials Committee, or subcommittee of same must meet to determine if the candidates meet the qualifications for trustee. Upon establishment of the fact that a nominee for trustee lacks eligibility under these Bylaws, it shall be the duty of the Election and Credentials Committee to disqualify such nominee. If there are no nominations by Petition for trustee in any district in which a trustee is to be elected, it is the duty of the Board of trustees to appoint a member to serve in that position. At least thirty (30) days prior to the meeting of members, the Election and Credentials Committee shall certify a list of nominees for trustee to the secretary. The secretary shall then post at the principal office of the Cooperative, at least thirty (30) days prior to the meeting of members, a list of the nominations for trustee to be elected, listing separately the nominee(s) for each trustee district. The secretary shall also be responsible for mailing, with the Notice of Meeting or separately, but at least five (5) days before the date of the meeting, a statement of the number of Board members to be elected and the names and addresses of the nominees. No nominations may be made from the floor. Nominees' names from the same district may be rotated on the ballot so that each nominee's name is on the ballot in the same position as equal number of times as possible. Notwithstanding anything in this section contained, failure to comply with any of the provisions of this section shall not affect in any manner whatsoever the validity of any election of trustee. The Election and Credentials Committee shall elect its own chairman and secretary at its initial meeting. It shall be the responsibility of the committee to establish or approve the manner of conducting any ballot or other voting, to pass upon all questions that may arise with respect to registration of members in person, to count all ballots or other votes cast in any election or in any other manner, to rule upon the effect of any ballots or other votes irregularly or indecisively marked or cast, to rule upon all questions that may arise relating to member voting in the election of trustees and to pass upon any protest filed with respect to election or to conduct affecting the result of the election. In exercising the responsibility, the committee shall have available to it the advice of counsel provided by the Cooperative. In the event a protest or objection is filed concerning any election, such protest or objection must be filed not more than three (3) business days following the adjournment of the meeting in which the voting is conducted. The committee shall thereupon be reconvened, upon notice from its chairman, not less than seven (7) days after such protest or objection is filed. The committee shall hear such evidence as is presented by the protestor(s) or objector(s), who may be heard in person, by counsel, or both, and any opposing evidence; and the committee, by a vote of a majority of those present and voting, shall, within a reasonable time but not later than thirty (30) days after such hearing, render its decision, the result of which may be to affirm the election, to change the outcome thereof, or to set aside. The committee's decision (as reflected by a majority of those actually present and voting) on all matters covered by this Section shall be final. The committee may not affirmatively act on any matter unless a majority of the committee is present.

For a list of Election and Credentials Committee members, date of meeting, a petition or any other information concerning the nominations procedure, please contact: Bob Kroeger, President, Clinton County Electric Cooperative, Inc., 475 N. Main Street, Breese, IL 62230, (618) 526-7282.