

Why We Should Understand How Power Gets to Our Homes



When electrical power is available to continually meet our needs, we don't think about it until it's missing. Our alarm wakes us up in the morning; we turn on the light and television; we cook or warm-up meals most days of the week and use the computer to pay

bills. There is a long list of other tasks we perform each day that require an uninterrupted stream of electricity, and we manage to do it all without the slightest concern about what it takes to get the power to us. But if you've ever experienced an outage for a few hours after a thunderstorm or even for a few days and weeks following a hurricane, you realize the importance of electricity in your daily activities, and without it, life can get somewhat unpleasant.

Last year in this magazine we discussed the entire process of what it takes to have electricity available. We covered the generation process, which usually starts at a power plant and travels to different parts of the country via a transmission grid, and we also discussed the distribution grid, which delivers electricity directly to our homes. Through these articles we also explained the processing of fuel sources (coal, natural gas, hydro, nuclear and renewables) used to produce electricity. We concluded last month with a discussion of the national grid. If you missed any part of the series and would like to review the information, give us a call or visit www.caec.coop.

Gaining an understanding of the concepts from this series is more important than ever with our current energy climate. Just in the past year, Congress has begun the process to set a course of action regarding our nation's energy policy by narrowly passing The American Clean Energy and Security Act of 2009 (the Waxman-Markey bill) in the U.S. House of Representatives on June 26, 2009. Now that it has moved to the Senate floor, consumers must continue to remind their members of Congress that affordability and reliability of power are critical needs for our nation. We should also emphasize the need for a fair allocation of emission allowances based on regional fuel options. In other words, the South shouldn't be penalized because wind energy is not a viable source of generation. These are important matters because the outcome of this legislation will affect how much we all pay for electricity in the near future and affect the cost of power for generations.

Hopefully, this series gave you a better understanding of how power is generated and travels to your home for your personal use and comfort, as well as more insight into the energy discussions taking place in Washington. At the end of this magazine Gary Smith has a good perspective on how things get done in DC. Regardless of the series' impact, getting electricity to your homes occurs because of an amazing system and the hard work of industry employees. ☞



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You can help exercise some control over wholesale power rates

CAEC's Peak Shaving Program Continues

As this article is being written, a primary cost driver for your electric rates for the rest of 2010 is being determined. It's January, and the low temperature in our area of Alabama will be in the teens this week. It only takes one 15 minute period of extreme energy use to have an effect on your electric bill for the whole year.

It's rather hard to imagine, but given that the majority of people work and attend school, most households are very active around the same time each day. Because of this everyday occurrence, electric power consumption peaks during these times.

The problem is that large and expensive peaking power plants, that usually utilize more costly fuels, have to be built to handle these enormous loads – no matter how short the time-frame. The other option would be rolling blackouts, and that is not what you would want in extreme weather conditions.

Believe it or not, you can be a part of the solution to this dilemma.

Implemented Oct. 1, 2007, CAEC's Peak Shaving Program, which currently targets water heaters, is designed to keep peak loads to a minimum. Electric water heaters make up approximately 14 percent of a home's annual electricity usage.

The objective of the Peak Shaving Program is clear-cut - if CAEC's system energy usage can be reduced during peak times, then we can lower the impact of our wholesale power cost. Peak energy can cost two to three times more to produce than off peak power, but this program offers a way to manage electricity use at the most expensive times. Keeping CAEC's wholesale power costs down helps keep rates lower for all our members.

How does the program work?

- Let CAEC know you want to participate in the free Peak Shaving Program – Call (800) 545-5735 or fill out the form on page 34 of this magazine and mail it in.
- Those who participate also qualify for a water heater rebate.

- The peak shaving devices (PSDs) are installed by a licensed electrician at no cost to you.
- You still have hot water when you need it; the reheating process is just delayed to off peak times.

CAEC has a goal to install 1,000 devices each year, and in 2009, we again achieved our goal, bringing our total since implementation to 2,120. This accomplishment brings us closer to our long term, five-year goal of having 5,000 water heater peak shaving devices installed; and with your help we plan to keep the momentum going. With the present PSD installations, CAEC's wholesale power costs have been offset by nearly \$150,000 – imagine what more installations would save!

Other cooperatives of PowerSouth (our wholesale power provider) are participating in the peak shaving program as well, and the overall goal is to have 50,000 water heaters in the program by 2016. Then, PowerSouth can optimistically reduce the need to build one peaking plant, which can cost at least \$200 million!

If you have questions about CAEC's peak shaving program or would like to help us reach our goal by signing up, call (800) 545-5735 or (334) 365-6762. You can also fill out the form on page 34 in the back of this magazine and mail it in or drop it by one of our service centers. ☞



Is Your Home Wasting Watts?

— Eliminate “standby” power

Standby power refers to the energy consumed by electrical equipment and appliances left plugged in, even though the devices are in the off position. Such equipment draws power 24 hours a day by supporting features such as timers, clocks, memory and remote “on” and “off” switches. Almost everyone keeps some “on/off” appliances plugged in, which adds to power bills. Most small appliances and electronic devices are dismissed as minor energy consumers in your home. But many homes have three to four TVs plus DVD players, cable boxes and video game consoles. Standby power usage for this much equipment eventually adds up.

A typical American home has 40 products constantly drawing power, amounting to almost 15 percent of residential electricity use. Have you ever wondered how much electricity your household appli-

ances and electronics use when they’re supposedly off in standby mode? The average annual energy usage for some household appliances and electronics in standby mode is:

- computer - 16 kWh
- microwave oven - 54 kWh
- DVD/VCR player - 72 kWh
- stereo surround sound - 128 kWh
- LCD TV - 123 kWh
- Plasma TV - 145 kWh
- cell phone charger - 1.9 kWh

Multiply these numbers by the number of each device you have in your home and then multiply that number by what you pay per kilowatt-hour and you will have an idea of what it costs.

“A typical American home has 40 products constantly drawing power.”

In the United States, an estimated 5 percent of household electricity use is standby power, costing consumers about \$4 billion annually.

It’s not very surprising that the amount of standby power we use is projected to increase as we continue to fill our homes with more energy-hungry equipment. The only way to completely eliminate standby power is to either unplug all your devices or to manually turn off your power strips.

Making these small changes a habit can reduce your usage over time, and in some cases, it can be as much as 10 percent. ☞



*CAEC Offices will be closed on Monday, Feb. 15,
in Observance of President’s Day*



CAEC Employee Spotlight: Staking Technician

It takes many talented and dedicated people to provide you with quality electric service. From the board of trustees, to the field and office staff, a great deal of resources is necessary to ensure reliable and affordable power.

In order to gain a better understanding of what goes on at your electric co-op, each month this year, some of the positions required to provide you with electricity and customer service will be featured in *Alabama Living*. This month we highlight Staking Technicians.

You receive power to your home either through overhead or underground equipment. Placing this infrastructure requires more than simply locating a pole or underground transformer near a home or business. The power lines must be designed accurately and in accordance with all applicable regulations enforced by Rural Utilities Service (RUS), National Electrical Safety Code (NESC) and National Electric Code (NEC). And if a line is going to cross a state highway, a permit must be received from the Alabama Department of Transportation (ALDOT).



On a daily basis, staking technicians determine the best location for the electric infrastructure that will most economically serve CAEC's members while meeting all safety standards.

This process begins when the staking technician meets with the consumer to conduct an on-site evaluation, which involves determining:

- The location of the electrical entrance cable (power source to the structure);
- The best placement for the poles (for the consumer's convenience and the cooperative's cost efficiency);
- The location of other infrastructure (septic tanks, water lines);
- The electrical load (how much electricity the appliances at the location require) in order to determine the size of the transformer and service wire to accommodate the load;

- Whether a right-of-way easement is required (a right-of-way easement is needed when a line or pole must cross the property of another land owner).

Common conversations between the Staking Technician and the member involve the type of service (overhead or underground) and its associated costs. Underground service costs more because of the type of wires and equipment needed.

"I enjoy meeting the variety of people and helping them make the best decisions concerning their personal electric needs," said Jerry Vines, CAEC lead stake technician with more than 30 years of experience in the field.

"The biggest challenge is obtaining right-of-way easements, especially if the other property owner lives out of state or it's an heir estate and you have to contact all parties. It can really slow down the process."

The staking tech is also responsible for marking, or staking, the line for the operation crew to construct the service. By utilizing a global positioning system (GPS), the location of the poles or underground transformer is mapped into the co-op's digital software. Having this type of information readily available on crew laptops is critical to other operational activity when storm restoration is being performed.

Safety, reliability and efficiency are top goals for the staking technician when designing a job because in the long-run, these are the qualities that will insure the public as well as the energized lines and equipment remain secure. Not only is it imperative that the infrastructure has sufficient strength (so the line can withstand adverse weather conditions) and reliability (providing uninterrupted service), but the distribution system is also built the most cost-efficient way—for both the consumer and the cooperative. ☞



CAEC Appoints New Board Member



Elmore County resident Mark S. Presnell, Sr., was appointed to the Board of Trustees for Central Alabama Electric Cooperative (CAEC). Presnell, representing District 2, a position formerly held by the late Don Whorton, began his term of service Jan. 14, 2010.

Presnell moved from his birthplace of Panama City, Fla., to Elmore County in 1962. As an entrepreneur, he established Mark's Service Center and Body Shop, Inc. in 1985. In addition to his fully-staffed automotive repair, paint and body shop, he owns and manages a sixty-two unit self-storage business in Wetumpka.

"We are pleased to welcome Mark to the board," said Chase Riddle, Chairman of the Board of Trustees. "As a private business owner for over 25 years, Mark understands the importance of providing quality and reliable service to customers."

Riddle stated that the selection process by the trustees began with a board committee who reviewed a list of all the members in District 2 following the death of Trustee Whorton. From among the 3,600 names, letters of invitation were mailed to more than a dozen individuals to deter-

mine their interest in serving on the board, and from those members who responded, interviews by the full board were conducted.

Presnell has served on multiple local boards and committees, including the Wetumpka Area Chamber of Commerce, past president; Wetumpka Lions Club, past president and current secretary; Colonial Bank, past board member; Wetumpka Planning Board, past chairman; City of Wetumpka Industrial Development Board, past board member; and Hohenburg Field Stadium Foundation Committee, past board member. For recreation, Presnell has also worked toward and attained his FAA Sport Pilot license during the last two years.

"As a private business owner for over 25 years, Mark understands the importance of providing quality and reliable service to customers."

He and his wife Cindy of 31 years are residents of Elmore County, just north of Wetumpka and are members of Mulder Memorial United Methodist Church in Redland. They have one son, Mark Jr. who is married to the former Andrea Haynes of Wetumpka, and a granddaughter, Marlee Sanders Presnell. ☞

Notice of PURPA Comments Deadline

In the Nov. 2009 *Alabama Living* magazine, CAEC published a "Notice of PURPA Consideration and Request for Written Comments" in reference to the adoption of four new standards:

1. Integrated Resource Planning
2. Rate Design Modifications to Promote Energy Efficient Investments
3. Consideration of Smart Grid Investments

4. Smart Grid Information

CAEC did not receive any comments as of Jan. 15, 2010, but an additional thirty (30) days will be allowed for further comments, culminating on Feb. 22, 2010.

Details on the new standards can be located in the November magazine or CAEC's website www.caec.coop.



Enjoy a Hot Shower and Help Control Costs at the Same Time



By having a CAEC Peak Shaving Device installed on your electric hot water heater, you'll still have warm, hot water when you need it, while helping the cooperative reduce its need to pay for peak-time power costs.

If enough people join this effort, we can have a positive effect on our future rates – will you join us?

The peak shaving device for your electric hot water heater is free, and will be installed by a licensed electrician at no cost to you just by submitting the form below.

To learn more about this program, see our story on page 5 of this magazine, or visit our website, www.caec.coop.

Yes, I agree to do my part by joining CAEC's peak shaving program.

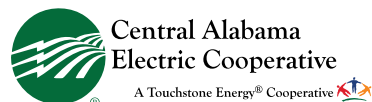
Name: _____ Phone #(s): _____

Address: _____ City: _____ St: _____ Zip: _____

Account #: _____

Email: _____

Number & Size(s) of Water Heater(s): _____



Mail form to: Central Alabama Electric Cooperative, P.O. Box 681570, Prattville, AL 36068

HEATING SYSTEM

Your heating costs represent about 50%-60% of your monthly electric bill.

SAVE Energy the Easy Way...

- ▶ **Clean or replace filters monthly** or as needed.
- ▶ **Have your heating system professionally checked and serviced.** A well-maintained heating system will run more efficiently, use less energy and lower energy bills.
- ▶ **Don't block heating registers.** Blocked air vents and registers reduce airflow and make your unit run longer, adding to your monthly bill.
- ▶ **Run ceiling fans in reverse mode.** Reversing the direction of ceiling fans helps push warm air down from the ceiling during the winter.



Central Alabama
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Conserve101... Conserving today means saving tomorrow.