Balancing Electricity Supply and Demand

By Trent Loutensock General Manager

lectricity is essential for nearly every aspect of daily life — so essential that we rarely think about how it's produced and delivered to our homes. You might be surprised to learn that behind the scenes, a network of experts is working daily (and even by the minute) to anticipate how much electricity you need before you even use it.

We're all connected to the electric grid, so ensuring the right amount of electricity for all involves a complex process of forecasting energy demand, planning for capacity, and securing enough supply to meet Americans' needs.

POWERFUL SOURCES

First, electricity must be generated at a power plant using either traditional sources, such as coal, natural gas, or nuclear energy, or from renewable sources, such as solar, wind, or hydropower.

At Y-W Electric Association, we work closely with Tri-State Generation and Transmission Association, our local wholesale power partner, to secure enough electricity for our communities, using a diverse mix of energy sources to generate the power we deliver to your home or business. By maintaining a diverse energy mix such as coal, natural gas, wind, solar and hydropower, Y-W Electric has options to ensure reliable power at a competitive cost.

On a larger scale, across the country, electricity



supply and demand are managed through a market that includes long-term planning agreements, where electricity is bought and sold just like other common goods and services. Because Y-W Electric works with Tri-State, which is also a cooperative, we are able to pool resources and expertise to deliver affordable power to our local communities.

Electricity supply changes throughout the day because demand fluctuates based on consumers' needs. For example, Y-W

Electric knows that we need to ensure more electricity in the mornings when you're starting your day, and in the evenings when you're cooking dinner, running appliances, and watching TV. Demand also increases when weather patterns change, such as extremely warm or cold temperatures.

MANAGING SUPPLY AND DEMAND ACROSS THE GRID

Across the country, other electric utilities are managing the same task of balancing supply and demand, which is why we have a larger network of key players in place to ensure enough power is delivered across the grid.

In most cases, the amount of electricity generated and how much is sent to specific areas are coordinated and monitored by regional transmission organizations (RTOs) and independent system operators



Y-W ELECTRIC MISSION

Y-W Electric Association is dedicated to providing high-quality, reliable electric service and related products to our members at competitive prices. Our members deserve and shall receive quality service unexcelled in our industry. We are committed to maintaining an environment where the Board of Directors and employees can perform at maximum potential to benefit our Y-W community.

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YOUR CO-OP NEWS

(ISOs). In other areas, individual electric utilities perform these tasks.

RTOs, ISOs, and electric utilities act as air traffic controllers for the electric grid. They forecast when you, your neighbors, and communities across a large region will need more power. These organizations take measured steps to ensure there's enough supply to meet demand. *Robert & Abigail Schow 53710xxxxxx*

LOOKING AHEAD

As the energy sector undergoes rapid change, it's important for all consumers to understand the basics of electricity supply and demand.

Electricity use in the U.S. is expected to rise to record highs this year and next, with the demand

for electricity expected to at least double by 2050. At the same time, energy policies are pushing the early retirement of always-available generation sources, which will need to be planned for to ensure reliable electricity.

Y-W Electric remains committed to providing affordable, reliable energy to the members we serve. That's why we are preparing now for increased demand and other challenges that could compromise our local electric supply.

Managing the balancing act of electricity supply and demand is a complex job, which is why we have a network of utilities, power plant operators, and energy traffic managers in place to direct the electricity we need and keep the electric grid balanced.

Don't Miss Out On The College Scholarships

Available Through Y-W Electric Association For 2025!

Submit your application prior to the deadline to compete for scholarships offered by Y-W Electric Association.

- Y-W Electric* \$1,000/year Scholarships, renewable up to \$4,000
- Y-W Electric* \$1,000
 Scholarships
- Basin Electric \$1,000
 Scholarships
- Y-W Electric* \$500
 Scholarships
- Y-W Electric* \$500
 Continuing Education Scholarship
- Tri-State G & T \$500 Scholarships
- Y-W Electric* \$1,000 Line Technician Training Scholarship
- * Y-W Electric Scholarships are funded by Unclaimed Capital Credits Account

TO QUALIFY FOR THESE SCHOLARSHIPS:

- Your parents or guardians must receive electric service from Y-W Electric
- You must be a graduating student from a local high school or approved home schooling program or be a continuing college student
- You must maintain full time resident student status



- · Semesters must be continuous excluding summer
- You must provide Copy of Grade Transcript to Y-W at the end of each semester to receive renewable funding for specific scholarships
- · You must maintain minimum GPA requirements
- Applications were made available on our website at ywelectric.coop beginning October 2024
- Applications must be emailed or delivered to Y-W prior to 5:00p.m. January 30, 2025
- Applications received after January 30, 2025
 WILL NOT BE CONSIDERED!

For more information please see your guidance counselor or call Andy Molt at Y-W Electric 970-345-2291 and he will be happy to answer any questions.

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Y-W Electric Celebrates Milestone Anniversaries

ongratulations to the following Y-W Electric Association team members who celebrated a milestone employee anniversary with the cooperative in 2024. We thank you for your dedication, hard work, and continued service to the co-op. Eric & Naomi Myotte 8217xxxxx



5 YEARS

Elisha Harris Consumer Accounting Representative/ Executive Assistant



5 YEARS

Shannon Florian Payroll Specialist



5 YEARS

Trent Loutensock General Manager



10 YEARS

Ry Kautz Hotline Foreman



25 YEARS

Spencer Johnson Wray Area Foreman



40 YEARS

Joneal Young Board President -Director





Each month, Y-W Electric Association offers its members a chance to earn a \$20 credit on their next electric bill. If you find your name and account number in this magazine, call 800-660-2291 and ask for your credit. It couldn't be easier.

Get acquainted with your account number, read your Colorado Country Life magazine, and pick up the phone. You must claim your credit during the month in which your name appears in the magazine. (Check the date on the front cover.)

Winners claiming \$20 from the November issue: Philip & Sue Heath, Karen Holtman, Daniel Martinez, Patti Tribbett

BILLING CORNER





Access My Account

For convenience and security, Y-W Electric Association offers you the ability to pay your bill with the SmartHub app. The app allows you to pay your bill electronically with a credit or debit card or checking account.

The app is also a great place to get account information. a link to sign up for auto payment. Todd & Rebecca

Reporting an outage is also available through Smart Hub. This information goes directly to our operations open for those who do not have SmartHub available.

SmartHub is compatible with iPhones as well as Android devices. Visit our website at ywelectric.coop for more

Home Heating Hurdles

Why you should be cautious when heating your home

pace heaters, kerosene heaters, fireplaces, and wood-burning stoves are a leading cause of fires in U.S. homes, according to the National Fire Protection Association. The term "homes" includes one-and two-family homes (as well as manufactured homes), apartments, townhouses, and other multi-family dwellings. *Corby Kneedler 3412xxxxx*

During a recent four-year period, local fire departments responded to an estimated annual average of 48,530 fires involving heating equipment. The fires resulted in 500 civilian (non-first-responder) deaths, 1,350 civilian injuries and \$1.1 billion in direct property damage, according to NFPA's Home Heating Fires report published in 2021.



- Heating equipment caused one in seven home fires and 19% of home fire deaths.
- Most home heating fire deaths (81%) included stationary or portable space heaters.
- More than half of the home heating fire deaths were caused by placing heating equipment too close to things that can burn, such as furniture, clothing, mattresses or bedding.
- Nearly half (48%) of all home heating fires occurred in December, January, and February.
- Failure to clean equipment, such as chimney flues, accounted for a quarter of all heating equipment fires.

In addition, approximately two in five home-heating equipment fires involved items that ran on what is considered solid fuel, such as wood-burning or pellet stoves or wood-burning fireplaces. However, electric-powered heating devices were responsible for the largest share of losses, accounting for more than half of the fatalities, three in five injuries, and two-fifths of the property damage.



FOLLOW THESE SAFETY TIPS TO USE SPACE HEATERS SAFELY:

- 1. Read all instructions and use space heaters only as recommended.
- 2. Do not leave space heaters unattended.
- 3. Plug them directly into an outlet; most power strips and extension cords are not equipped to handle the energy spikes caused by space heaters cycling on and off.
- 4. Unplug any other items from the outlet you are using and try to use a dedicated circuit to avoid overload. *Caleb Wingfield 10609xxxxx*
- 5. Keep children and pets away from space heaters.
- 6. Turn the heaters off before you leave the room or go to sleep.
- 7. Do not use heaters that are in disrepair or have frayed cords or damaged plugs.
- 8. Place heaters on flat, level surfaces and never on furniture, counters or carpet, which can overheat.
- 9. Unplug and put space heaters out of the reach of children when not in use.

Always use space heaters with care. For additional safety tips, visit SafeElectricity.org.



Taking steps to help your home heating system run more efficiently can reduce energy use and lower your winter bills. Check to see if any air vents around your home are blocked by furniture, curtains, or other items. Obstructed vents force your heating system to work harder than necessary and can increase pressure in the ductwork, causing cracks and leaks to form. If necessary, consider purchasing a vent extender, which can be placed over a vent to redirect air flow from underneath furniture or other obstructions.

Source: energy.gov

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