



POWERLINES

February 2023

Official Newsletter of Tri-State Electric Membership Corporation

Looking Back at a Historic Event

The events of Friday, December 23, and Saturday, December 24, 2022, were extremely unusual.

Winter Storm Elliot brought record cold temperatures to much of the country in what the National Oceanic and Atmospheric Administration called a “historic arctic outbreak.”

Tri-State EMC and our power supplier, the Tennessee Valley Authority (TVA), both set new winter records for energy demand. Most unusually, though—for the first time in its nearly 90-year history—TVA issued a call for rolling blackouts.

In the midst of the brutally cold weather and record high energy use, TVA had multiple power generation plants unexpectedly go offline. This was a serious situation. The Tennessee Valley region needed more energy than could be generated. When energy demand exceeds supply, catastrophic damage can occur to the power grid, resulting in long-term and widespread power outages.

However, the quick action of Tri-State EMC employees protected our community and the region from large and extended power outages. Our team followed an existing, carefully engineered plan to

reduce our system load in a controlled fashion. While this resulted in temporary power outages for some of our consumers, the impacts of the event could have been far worse.

Our lineworkers, system operators and engineers sprang into action when they were called upon. Crews went out into extreme conditions to operate equipment and manage the situation. Their efforts minimized the impact on families, businesses and critical infrastructure.

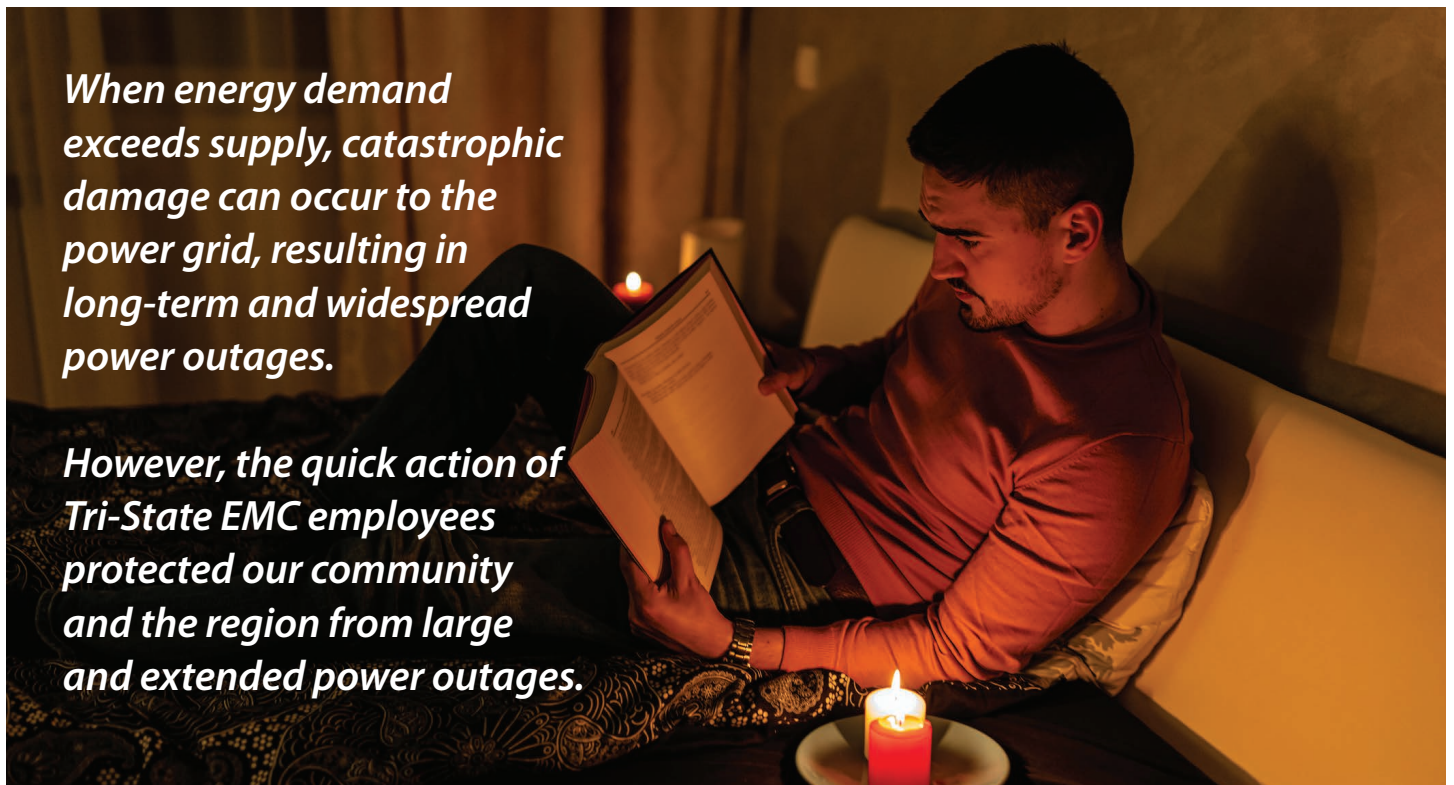
It’s hard to be good at something that you have never done before, and we are using this as a learning opportunity. Tri-State EMC is evaluating how our team can perform better should we be called upon to do this again.

More importantly, we are working with TVA to help ensure that our community has the energy we need at the moment it is needed.

You depend on Tri-State EMC to ensure that the lights come on when you flip the switch. For some of you on December 23-24, that didn’t happen. We take this seriously, and we ask for your grace as we learn lessons from this historic event and rebuild your confidence.

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This institution is an equal opportunity provider and employer.

Should I Change My Charging Habits?

Four things to know about extending rechargeable battery life

Many of us are so connected to our phones, tablets and laptops that we panic when the battery nears the dreaded 0% mark. We want our device batteries to perform well for as long as possible. But taking care of them can conflict with why we have our electronics in the first place. The point isn't to fret about battery life, it's to read and send emails, scroll on social media, take photos and partake in countless other pursuits.

If you ever find yourself fretting over your device's power levels, here are a few tips on striking the right balance between battery health and how you work and play:

1. Keep your battery about 40% to 80% charged. There is a lot of reasonable advice shared on the internet to keep your phone charged between 20% to 80% or 40% to 80%. To understand those recommendations—and why you might want to either follow them or ignore them—it helps to understand how rechargeable batteries work.

Up until about 20 years ago, batteries benefited from occasional “deep discharges”—running the battery down until the device shuts off.

But because of different materials used in batteries today, that's not true anymore.

Rechargeable batteries work by containing two different materials that produce electricity when particles flow from one to the other. They flow the other direction when being recharged. That process will degrade any battery over time. Keeping both sides of a battery in balance, with the device charged at about 50%, will put the least amount of stress on the battery and make it last longer.

2. Overnight charging can add stress to some batteries. Charging your device up to 100% or letting it drain to 0% until it shuts down

puts extra stress on the battery and can shorten its life. That's why it can make sense to charge your devices occasionally throughout the day, rather than keeping them plugged in while you sleep. Newer electronics will actually stop charging at 100%. But then each time the charge drops to 99%, charging will resume.



DANIEL KORPAI, UNSPLASH

Experts recommend keeping devices charged between 40% to 80% to help prolong battery health.

3. Keep it cool, but not cold. One absolute in battery care is don't let your device get warmer than 95 degrees. Keep it out of the sun and never leave it in a hot vehicle. If the device does get hot, don't go to the other extreme and put it in the freezer. Just place it in the shade or take the cover off for a while.

4. Use less power. One of the easiest ways to put less stress on a battery is to use less power. You can close energy-draining apps and functions when you're not using them, and you can activate energy-saving settings like putting the device to sleep sooner.

Another easy way to reduce battery use is to activate Airplane Mode every now and then. You may be inconvenienced by a temporary pause on receiving emails, texts or phone calls, but it might help you focus better on that movie you're watching, trail you're hiking or dinner conversation you're having with friends.

If you're the kind of person who likes to turn in their electronics every couple years for the latest versions, these recommendations likely won't apply. But if you're someone who wants your devices to last longer, these suggestions can help prolong battery life.

Paul Wesslund writes on consumer and cooperative affairs for the National Rural Electric Cooperative Association, the national trade association representing more than 900 local electric cooperatives. From growing suburbs to remote farming communities, electric co-ops serve as engines of economic development for 42 million Americans across 56% of the nation's landscape.



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