

THE RISING COSTS OF MAINTAINING THE ELECTRIC GRID

SIEA adopts new grid access charge in 2023

In 2023, San Isabel Electric Association, Inc., will celebrate 85 years of providing member-first electric service to over 20,000 current members in a 6,600-square-mile territory. While a lot has changed since incorporation in 1938, dedication to open communication and sound business practices has remained a strong foundation of SIEA's mission and values.

We've kept rates as low as possible for several years. With so much to celebrate, it was a difficult decision for the SIEA Board of Directors to approve new electric rates on billings after January 1, 2023. This is the first time we have increased rates in eight years, and just the second in 13 years.

Inflationary and supply chain pressures have driven costs upward for more than a decade, but especially in recent years. The results are all too familiar to everyone. In the last year alone, we've seen cost increases ranging between 15% to 60% for most materials, supplies, fuel, and other labor necessary to maintain our system.

This is a sizable cost increase and one that we cannot absorb without adjusting member electric rates. As a not-for-profit cooperative, the only viable way for us to recover the cost of supplying power to you, our members, is to share that expense with you. In order to effectively address our rate structure, SIEA worked with an independent rate consulting firm several times in recent years, developing a cost-of-service study to assist in analyzing and adjusting rates for each of our member rate classes. The purpose of the study is to determine what it costs to serve each member by rate class and to recover these costs in the rate design. Rate increases are tied directly to operating and maintaining infrastructure and staffing to ensure that our members have reliable electricity.







For the residential and small commercial rate class, the grid access rate was increased by \$5 per month. Fortunately, we can maintain our current kilowatt-hour energy charge rates. A detailed list of all rate classes and changes is posted on our website, siea.com/rates.

Unfortunately, we cannot control the rising cost of materials, the financial impact of supply chain shortages, or evolving state and federal regulations. What we can do is remain dedicated to the Seven Cooperative Principles that guide us and our mission and values, and to provide affordable and reliable electricity to our members.

If you have questions about the 2023 rate increase and how it will impact your individual bill, please feel free to stop by one of our three regional offices, call 800-279-SIEA (7432), or email contactus@siea.com for more information.

THE SEVEN COOPERATIVE PRINCIPLES

- 1 VOLUNTARY AND OPEN MEMBERSHIP** (Icon: hands raised)
- 2 DEMOCRATIC MEMBER CONTROL** (Icon: checkmark in box)
- 3 MEMBERS' ECONOMIC PARTICIPATION** (Icon: dollar sign in circle)
- 4 AUTONOMY AND INDEPENDENCE** (Icon: puzzle piece)
- 5 EDUCATION, TRAINING AND INFORMATION** (Icon: person at presentation)
- 6 COOPERATION AMONG COOPERATIVES** (Icon: handshake)
- 7 CONCERN FOR COMMUNITY** (Icon: hand holding house)

NEW GRID ACCESS CHARGE					
EFFECTIVE JANUARY 1, 2023					
Look for this change on your bill due February 12, 2023.					
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RESIDENTIAL	SMALL COMMERCIAL C1	SMALL COMMERCIAL C4	LARGE COMMERCIAL	TIME OF USE	PUMPS
\$5 INCREASE	\$5 INCREASE	\$5 INCREASE	\$20 INCREASE	NO CHANGE	NO CHANGE
from \$20 to \$25	from \$31 to \$36	from \$50 to \$55	from \$150 to \$170	\$30	\$20

*The Time-of-Use (TOU) rate is available to all members with qualifying electric storage equipment, such as heating, battery storage, or electric vehicle charging. Visit siea.com/timeofday to learn more.

SHOULD I CHANGE MY CHARGING HABITS?

Four things to know about extending rechargeable battery life

BY PAUL WESSLUND

Many of us are so connected to our phones, tablets and laptops that we panic when their 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 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% – 80% charged.

There's a lot of reasonable advice around the internet to keep your phone charged between 20%–80%, or between 40%–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 using two different materials that produce electricity when particles flow from one to the other. They flow the other direction when being

recharged — a process that will degrade any battery over time. Keeping both sides of the 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.

But that's unrealistic — no one's going to keep their phone half-charged all the time. So, the experts try to make it easier by recommending 40%–80% or 20%–80%. Apple devices offer even more flexibility, pointing out that modern rechargeable batteries are designed to last for years under a variety of ways you use them. They recommend that, rather than worrying about the battery, just focus on using and enjoying your device.

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 stop charging at 100%, but each time the charge drops to 99%, charging resumes.

3. Keep it cool, but not cold.

One absolute in battery care is to not 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.

It sounds simple, but one of the easiest ways to put less stress on the 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 the “airplane mode” button every now and then. You may be inconvenienced by a temporary pause on receiving emails or phone calls, but it might help you focus on that movie you're watching, the trail you're hiking or the conversation with your dinner companions.

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.



Please help us spread the word! San Isabel Electric is considering hiring local pottery artists to make about 500 coffee mugs as part of the co-op's annual meeting gift. The mugs will be given out to members at the 2023 meeting in September. Interested potters are asked to please send a cover letter and statement of qualifications via email to contactus@siea.com or by mail to 781 E. Industrial Blvd., Pueblo West, CO 81007. Please include information about how and where you produce your work, your company, number of employees (if applicable) and relevant experience producing large orders.

RESOURCE ADEQUACY

BY RYAN ELARTON GENERAL MANAGER

Reliable electricity is not just something you expect — it's something we all depend on to not only survive but grow and thrive as a community. Here at San Isabel Electric, we are committed to doing everything we can to ensure we are able to provide you with a 24/7/365 supply of electricity.

From California to Texas, we have all seen headlines and heartbreaking consequences of the failures of America's electric grid. Each story and person impacted reinforces just how crucial a reliable supply of electricity is.

The North American Electric Reliability Corporation, otherwise known as NERC, recently reported in its 2022–2023 Winter Reliability Assessment that much of the United States is at risk of “insufficient electricity supplies” during peak winter conditions. There is some good news for our region. The report shows we are strongly positioned to weather any extreme peak demand scenarios, and, here at San Isabel Electric, we do not foresee any impacts to our reliability this winter.

Our electric grid is like a perfectly balanced seesaw, where the amount of electricity being produced must match the amount of electricity that consumers want to use at that moment. If there's too little generation running for the electric demand, then the whole thing starts to fail. Historically, the amount of generation running was ramped up and down under control of the “Balancing Authority” to match the electricity consumed, but as dispatchable generators are replaced with renewable resources that cannot be controlled in the same way, Balancing Authorities may have to instead control the amount of electricity consumed in the form of controlled blackouts. If any entity serving load in Colorado fails to adequately plan and ensure that generation resources can serve its loads, then there could be reliability issues across the whole system that we share.

One major risk to grid reliability stems from the current legislative and regulatory environments in Colorado. The legislature has mandated an energy transition that will shut down hundreds of megawatts of dispatchable resources such as coal and natural gas power plants and replace them with intermittent resources such as solar and wind farms by the end of this decade. This transition, in and of itself, is not the problem, but it does require that every utility engage in a thorough planning process to carefully implement the changes without negatively impacting grid reliability. We know the decisions being made today will determine whether or not there are sufficient resources to keep the lights on as we look five to 10 years down the road. Any failures to properly plan for and anticipate the possible shortcomings of the electric grid threaten to derail the energy transition, leaving our members in the dark. And that is simply not acceptable.

At San Isabel Electric, we are committed to being part of the solution to address the reliability challenges spreading across our nation. This includes supporting the acceleration of energy innovation and pressing for meaningful legislative action to ensure resource adequacy.

The term “resource adequacy” refers to making sure there is enough electricity to meet the needs of consumers at all times and under any conditions. San Isabel's power supplier, Tri-State G&T, along with many other generation operators in the state, are required to undergo periodic resource planning exercises under the watchful eye of the Colorado Public Utilities Commission. The reliability problem is that this planning requirement does not extend to all utilities that serve in the state. We have been working with our fellow electric cooperatives and other utilities to help draft resource adequacy legislation to ensure that all utility providers in Colorado are held



RYAN ELARTON

accountable for their ability to deliver reliable electricity.

While it's too early to tell, we may ask you to participate in a letter writing campaign during the legislative session. It is imperative that we let our elected representatives know that unreliable electric service is not an option, and every utility must pull their weight to avoid causing problems for all of us.

As a member-owned cooperative, we have a duty deliver to you, our members, reliable and affordable electricity, and we will not sit idly by if our ability to do so is threatened. Your cooperative remains steadfast in our mission and will continue to advocate for you, our members, and the reliable, affordable energy you deserve and expect.

LOVE YOUR ETS?

Show us your heater and get a \$15 bill credit!

- Take a picture of your electric thermal storage heater.
- Caption or title it. It can be funny or explain why you love it!
- Share it with us by 10 p.m. January 30. Either post it on Facebook and tag us by including @SanIsabelElectric in the post or email it to communications@siea.com.



After sharing, we'll reach out to you directly via Facebook to apply your \$15 bill credit. Posts will be shared in an online gallery where you can vote on the winner. A \$100 bill credit winner will be picked in February and announced in March.

Primero Receives Funding for Clean, Electric Buses

Funding from the Environmental Protection Agency is helping a local school district hit the accelerator on a cleaner, greener, healthier and more affordable way to bus kids to school.

Primero Reorganized School District Number 2 is one of only four Colorado school districts to receive funds from the EPA's Clean School Bus Rebates program.

Once the buses hit the road, students will have a quiet, fume-free ride, and it will save the district thousands of dollars each year on fuel and maintenance costs. The buses reportedly perform better than their diesel counterparts too.

Electric school buses have a lot of advantages, but let's start with the health and environmental benefits. Because electric motors have no tailpipe emissions, they're not pumping out any pollutants that can be harmful to riders. Studies have found children riding on school buses breathe in as much or more bus-generated pollution than is inhaled by the entire surrounding community.

They're not just better for our kids' health and climate. Electric vehicles can save districts and taxpayer money. Fellow cooperative, Granby-based Mountain Parks Electric, partnered with West Grand School District in Kremmling to fund an electric school bus at no cost to the district in March 2021.

According to Mountain Parks' Energy Manager Chris Michalowski, the cost of fueling the electric school bus is about \$0.16 per mile versus about \$0.43 per mile for a comparable diesel bus. This means that fuel costs of an electric school bus could be almost three times cheaper than operating a diesel bus. Primero anticipates long-term fuel savings from their electric buses, totaling approximately \$30,000 over their lifetime. As an added bonus, electric motors have no moving parts. No moving parts means less frequent maintenance and less overall maintenance-related expenses.

While they cost less later, the upfront purchase cost is significant. Primero will receive \$700,000 from the EPA. Unfortunately, this funding alone will not cover the entire cost of the buses and the charging infrastructure. Primero has plans to replace a full-sized, 65-passenger bus for its Cokedale route, a 14-passenger bus for the Stonewall route, as well as purchase the necessary charging infrastructure.

Currently, a full-sized vehicle can cost up to \$400,000. Therefore, the district is planning on seeking additional funding from the state. The Colorado Department of Public Health and Environment will be offering \$65 million in funding to support electric bus and associated charging infrastructure adoption. Information about

when and how that money will be distributed is not yet available. Charge Ahead Colorado, a state-funded program that provides grant assistance for charging stations may also be able to assist.

Because an electric bus has a 20-year expected lifetime, the operating and maintenance savings are often anticipated to compensate for the higher upfront costs. An electric bus can also benefit from more consistent electricity prices compared to more volatile diesel prices.

Michalowski also says the electric bus works in the steep mountain passes much better than a traditional diesel bus. "The electric school bus has great torque and performs well in cold weather climates, like the one that we experience around Granby and Grand Lake (Colorado)," Michalowski says.

Primero Superintendent Blake Byall said they didn't go after the funding purely for money-saving or environmental reasons. "Electric vehicles are the next evolutionary step in transportation, and Primero wants to be on the leading edge of this technological advancement, instead of playing catch up at some point in the not too distant future."

Nationwide, funding from the EPA's new Clean School Bus Program will provide \$5 billion through 2026 to replace existing school buses with zero-emission and low-emission models. The initial funding opportunity through the EPA closed on August 19, 2022. CDPHE encourages all school districts and school transportation providers to complete an online electric bus interest form at their earliest opportunity. The form is available at cdphe.colorado.gov/electric-school-buses.

