



2021 MID-YEAR UPDATE

By Jesse Singerhouse, General Manager

As we reach the mid-point of 2021, I thought I'd take some time to give you an update on what has already been a busy year at your cooperative. First, we continue to deal with COVID issues in many aspects of both our personal and professional lives. We continue to adapt and innovate as we navigate the challenges we face, in order to deliver you reliable, safe, and affordable energy.

Our office has reopened to the public, so members can stop in to pay their bills, ask about our energy-related programs, or conduct other business face-to-face if needed. We still have some safety precautions in place and we ask members to please consider using online payment tools if they can. Options like SmartHub, paperless billing, and phone payments are available to our members to add convenience to your electric service. We like to see our members in person, but we want to keep doing our part to keep people safe. (3504002)

Electricity sales have been flat to slightly below budget so far in 2021. Normally that would be a cause for concern. However, our power costs from our G & T (generation and transmission) cooperative, Dairyland Power, have been below budget and our local staff and board have done a great job of holding down costs. Therefore, at this point in 2021, we are having a good year. As with anything, things can change in a hurry. The price of materials has gone up significantly this year and lead times for some products are out four months. We have gone almost two years since our last rate increase and have also returned power cost adjustment credits to our members several times during that period of time. We work hard to keep your power costs affordable and we hope to continue with stable rates into 2022.

Our operations/line staff have been busy this year. We are brushing and clearing rights-of-way in the Downsville area. Trees always seem to be a top cause of outages on

our systems so having a good clearance from the power lines will help reduce outage time. We are also replacing older poles, and we are testing poles in the southern part of our service territory this year. This is part of our annual maintenance program designed to improve your power quality. Each year we also do a few line replacement projects. This year we have a total of five projects we are doing in the Downsville, Rock Falls, and Colfax areas. Lines are upgraded and replaced as our system demand grows. These projects are done to make our distribution system strong in order to provide you the most reliable

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service possible. We also have the day-to-day work of line maintenance and new service installations.

In our member services area, we are excited about adding a 100% electric vehicle to our fleet. We've leased a 2021 Chevy Bolt and will be highlighting the benefits of driving an electric vehicle in the months ahead. We've also worked with several other electric cooperatives to form Charge EV, which will be a regional electric vehicle charging network. Look for more information coming soon about electric vehicle chargers that will be installed in our area. SunDEC Community solar farm is nearly fully subscribed. As I write this there are about 30 shares still available. Our staff will be glad to work with you to discuss a renewable option that will fit your needs.

As you can see, it has been a busy year so far. The staff and I are looking forward to having a great second half to 2021. We are committed to serving our members with reliable, safe, affordable and environmentally responsible energy.

Enjoy your summer!

Hidden Account Numbers

If you find your account number hidden in the pages of this magazine and you call and tell us before the next issue is mailed, we'll put a **\$50 credit** on your electric bill. Happy hunting!

Last month's winners were Judith Foust and Tristan Morse.



By Jolene Fisher

Did you recently see the unveiling of Ford’s all-electric F-150? Where there’s quite a few all-electric cars to choose from, the F-150 Lightning is one of the first truly mainstream all-electric pick-up trucks on the market. However, electric powered vehicles are not new. It’s a technology that’s been around for over 100 years. In the 1890s electric cars were more popular than gas-powered cars because of their simplicity, reliability, and low cost to operate. Henry Ford’s wife even drove one.

Recently, Dunn Energy leased an all-electric Chevy Bolt as a fleet vehicle. With more electric vehicle (EV) options out there, and more members calling in with questions about EVs, charging them, and how it all works on our system, the Board of Directors decided it was time for us to get some hands-on experience to complement the research and training we’ve

been doing regarding electric vehicles.

The cooperative’s Chevy Bolt has a range of 259 miles per charge and gets the equivalent of 119 miles per gallon, according to the window sticker. This sounds really good and we’re tracking the numbers to see just how accurate it is and how much it will cost to charge.

There is a large conversation happening right now regarding charging EVs and range anxiety. Currently, it can take a bit of time to charge your vehicle, so planning a long route can be challenging. On a fast charger, in a public setting, it can take upwards of 30 minutes to charge your car. It’s not as quick and easy as filling up with fuel and takes a bit more preparation. As with anything else, however, battery technology and charging technology will evolve and charging stations will become more abundant, making longer-distance



Beneficial Electrification



One of the really neat things (besides the instant torque and lack of noise) about driving an all-electric car is called beneficial electrification. No, this isn’t something snazzy, like the Ford truck’s ability become a back-up generator and power an entire home. It’s even better.

Beneficial electrification is based on the fact that electricity is continually getting cleaner. Every year there are more renewable energy systems tied into the energy grid. The renewable energy technology gets more efficient each year as well. This means that your electric stove, water heater, or *all-electric car* consumes cleaner and greener energy over the span of its life. Whereas, a fossil fuel-consuming appliance or vehicle will not.

However, we need to recognize

that the need for a baseload energy generation source, like coal or natural gas, is still necessary to balance our energy portfolio. There are days when the wind doesn’t blow and the sun doesn’t shine. These are the days that baseload energy sources carry the weight of the system. It’s our responsibility to our members to not only have cleaner, greener energy sources, but continually reliable sources as well.

With that being said, it might not always be that way. Today there are some technologies being refined and remarketed, like e-fuels, that can help the environment and reduce stress on the electrical grid. Technically, many e-fuels are based on hydrogen technology, which has been around for a long time. Hydrogen-based electricity

is produced using renewable energy—CO₂ and hydrogen, with water being the only byproduct.

Technically, the first hydrogen fuel cell was conceived in 1839, and the first fuel cell was placed in a vehicle in 1959. Interestingly enough, that first vehicle was an Allis Chalmers 20-horsepower tractor. This is the renewable technology that Porsche is trying to work back into the combustion engine. *Car and Driver* magazine (Feb. 2021) says Porsche will be ready to test this in 2022 in the new 911 GT3 Cup race car. In theory, e-fuels could make driving your regular combustion engine vehicle just as clean as driving an EV.

This is just another way electrical energy is becoming cleaner and greener: creating beneficial electrification.

travel in an EV even easier. (8681001)

Your cooperative was one of 29 local midwestern cooperatives to form Charge EV, a regional charging network made to help increase the number of EV charging stations in the more rural areas of Wisconsin, Minnesota, Illinois, and Iowa. This partnership was created to provide EV owners with peace of mind in their travels and help encourage growth of the electric vehicle market. We are currently looking at areas within our service territory where it might be beneficial to place a charger. Our hope is to have one or two installed yet this year.

To become knowledgeable about a product, the best teacher can be hands-on experience. We are encouraging our employees and directors to use the Bolt to travel to meetings and if they want, they can check it out and take it home for the night. That way, when someone asks a question, they have an answer from experience, not just from research.



Personally, the first thing I noticed when driving the Bolt was the incredible take-off. When you're in sport mode, squawking the tires is just a little too easy. The second thing I noticed was the minute you turn anything on—air conditioning, radio, seat or steering wheel heaters—your total range drops. Quite a bit. On a relatively nice day, driving from the co-op to Caryville, when I turned the A/C on, I dropped from a total range of 259 miles to 220 miles. Not that this is surprising or uncommon, at all. It's just not something that had crossed my mind. In a conventional car, you don't use your "fuel" to directly run your A/C or radio.

Did you know that the only routine maintenance you have to do as the owner of an electric car is rotate the tires? That's one of their selling points: the lack of routine maintenance costs. There's no oil to change, no brake fluid to check, or spark plugs to replace. In theory, you only rotate your tires and fill your windshield washer fluid.

These are the things that we need to know when we talk with members about electric vehicles. We want to continue to be a trusted, reliable source of information for our members and this is how we do it: research, hands-on experience, and the value of knowing we're helping our friends and neighbors.

CHARGE

POWERED BY CO-OPS

Your electric cooperative recognizes the need for convenient, publicly available electric vehicle charging stations. We've joined with other cooperatives in Wisconsin, Minnesota, Iowa and Illinois to develop Levels 2 and 3 charging stations within co-op service territories, building the CHARGE™ network.

A map of existing CHARGE charging stations and more information can be found at www.CHARGE.coop.

Electric Vehicles at a Glance

All-Electric Vehicle (EVs)

EVs use a battery to store the electrical energy that powers the motor. EV batteries are charged by plugging the vehicle into an electric power source.

RANGE

110-400 mi.

FUEL TYPE

Battery

MILES PER GALLON EQUIVALENT

68-141

Plug-In Hybrid Vehicle (PHEVs)

PHEVs are powered by conventional or alternative fuels and electrical energy stored in a battery. The vehicle can be plugged into an electric power source to charge the battery in addition to using regenerative braking and the internal combustion engine or other propulsion source.

RANGE

12-48 mi. (electric) 200-640 mi. total

FUEL TYPE

Gasoline + Battery

MILES PER GALLON EQUIVALENT

42-133



SUMMER SHIFT: SMALL STEPS FOR SAVINGS

When members save energy, they tend to save money. However, there is always something in our homes using electricity, whether to cool the home, turn on the lights, or run appliances. While using electricity is inevitable, HOW members choose to use it can be impactful.

The goal of the Summer Shift program is to shift non-essential electricity use to before 11 a.m. or after 7 p.m., June through August. These are times when electricity use is not at its peak and, therefore, is not as expensive for your cooperative to purchase, which in the end helps keep rates lower. So, how does Summer Shift work?

If members shift their electricity use, they may not necessarily save energy. They could use the same amount of electricity, but at a different time of the day. That is still beneficial because it means the cooperative's wholesale power provider—Dairyland Power Cooperative—did not have to purchase as much power when electricity costs were more expensive. When the cooperative saves, so do members.

The price of electricity purchased on the grid is always changing, based on the need for electricity balanced with available generation resources. As need—or demand—rises during the day, the price of electricity increases as more generation resources (power plants, solar arrays, etc.) are needed to power homes, businesses, and other

buildings or devices. When temperatures cool and things quiet down for the night, electricity demand drops as do the prices for electricity.

Dairyland must ensure it has enough generation resources to cover all the electricity needs of its 24 member cooperatives, including Dunn Energy Cooperative, plus an additional reserve in case demand spikes above expectations. This means investments in additional resources to cover the needs of all members. If our members, along with members of Dairyland's 23 other cooperatives, shift their electricity use to different times of the day, the overall "peak" is reduced.

When members choose to shift their electricity use, it helps spread out electricity use throughout the day. The less electricity cooperative members use when prices are at their highest, the more stable Dunn Energy can keep our retail rates. The more members who choose to participate, the more impactful these savings become.

TIPS:

Set your thermostat to 78 degrees (or a level that is comfortable for the home, but a few degrees higher than normal). Closing curtains and shades will help the home feel cooler, longer. A ceiling fan or table fan throughout the afternoon will help circulate air.

Set up a schedule for your smart thermostat and smart lighting options, ensuring a minimal amount of energy is used between 11 a.m. and 7 p.m.

Charge electric vehicles overnight.

Set the water heater to 120 degrees.

Washing dishes in an ENERGY STAR dishwasher instead of by hand can save a home \$111 per year.

Open the dishwasher after the wash cycle to let dishes air dry.

Contact your trusted energy advisor at Dunn Energy Cooperative to learn more!

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