

The Christmas Holiday Season is Upon Us!

2020 has seemingly flown by! The Thanksgiving holidays have come and gone. Now, we are looking forward to the Christmas season. This year's holiday season has a different vibe, mainly due to COVID-19. At Eastern Illini, we have experienced more than 10% of our workforce testing positive for COVID-19, with many other employees missing work due to quarantines from close contacts. However, as an essential infrastructure, we have an obligation to maintain services as normal to the best of our ability, regardless of the unusual circumstances. Our employees have gone above and beyond thus far to keep business continuity.

News Briefs

At the November Board meeting, your directors voted to return MESSAGE FROM a portion of 2020 net operating THE PRESIDENT margins to members as a credit in the December bills to provide some assistance in these abnormal times.

In 2021, three directorate districts will be up for election. These districts are in the north central and eastern portions of our territory. More information will be provided to members in future editions and on our website. If you are interested in more information, please contact us.

As I have mentioned previously, EIEC will most likely have a small rate adjustment during the first quarter of 2021. Over the past two years staff and your board have reviewed the cost of service by rate class

and the financial forecast in detail. We will have more information on the specifics of these adjustments soon.

Our power supplier, PPI has been well under their projected budget during 2020 for the wholesale power supplied to us. These savings, along with previously prepaid EIEC power costs to PPI, totaling

> over \$800,000 through September have been passed along to you throughout the year in lower power cost adjustment (PCA) charges. Additional savings for the last three months will also be reflected in the PCA.

Christmas

Let us all use the peaceful and hopeful message and themes of the Christmas season to assist our neighbors and community members in need by sharing our gifts of time, talent, and treasure. Despite all that has

happened thus far in 2020, we all have much to be grateful for. Please take some time to reflect on the many blessings that we tend to take for granted and look forward to an improved 2021!

On behalf of our dedicated employees and directors, we pray you have a safe and joyous holiday season and a Happy New Year!

Sincerely,

Bob Hunzinger

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- View your bill
- Make a payment
- Compare usage by month
- Review known issues
- Report an outage
- Update account information

SmartHub is available online or through an application on your cell phone. Sign up today!

Holiday Schedule:

EIEC offices will be closed December 24 and 25 for Christmas and December 31 and January 1 for New Years. We wish you a very Merry Christmas and a wonderful holiday season!

Your Touchstone Energy[®] Cooperative

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COMMUNITY ACTION AGENCIES PROVIDE ENERGY ASSISTANCE

Low-Income Energy Assistance Program (LIHEAP)



The Low Income Home Energy Assistance Program (LIHEAP) helps eligible low-income households pay for home energy services. Energy costs can place stress on a family's budget. In some instances, households are forced to make difficult decisions regarding which bills to pay and which necessities to go without. Illinois residents with a household income that does not exceed an amount determined annually by the Department of Commerce are eligible. Annual eligibility levels are determined based on available funding and may not exceed 200% of the federal non-farm poverty level. Contact community action agencies in your county to see if you qualify for LIHEAP.

The LIHEAP application period is from July 27, 2020 to June 30, 2021, or until funding is exhausted. During the COVID pandemic, an appointment with LIHEAP is required.

CHAMPAIGN COUNTY

Champaign County Regional Planning 217-328-3313 or 217-384-1226 www.ccrpc.org

DOUGLAS COUNTY

Embarras River Basin Agency, Inc. 217-923-3113 www.erbainc.org

EDGAR COUNTY Embarras River Basin Agency, Inc. 217-923-3113 www.erbainc.org

FORD COUNTY

East Central Illinois Community Action 217-497-2979 www.comaction.org

IROQUOIS COUNTY

East Central Illinois Community Action 815-707-5001 www.comaction.org

LIVINGSTON COUNTY

Mid Central Community Action, Inc. 309-829-0691 www.mccainc.org

MCLEAN COUNTY

Mid Central Community Action, Inc. 309-829-0691 www.mccainc.org

MOULTRIE COUNTY

C.E.F.S. Economic Opportunity Corp. 217-342-2193 www.cefseoc.org

PIATT COUNTY

Community Action of Central Illinois 217-935-2455 www.capcil.info

VERMILION COUNTY

East Central Illinois Community Action 217-554-9110 www.comaction.org



2020 Federal Poverty Guidelines for 200% of Poverty for 2021 Program Year

FAMILY SIZE	30 DAY INCOME	ANNUAL INCOME
1	\$2,127	\$25,520
2	\$2,873	\$34,480
3	\$3,620	\$43,440
4	\$4,367	\$52,400
5	\$5,113	\$61,360
6	\$5,860	\$70,320
7	\$6,607	\$79,280
8	\$7,353	\$88,240

Additional \$736 per person monthly income above 8 people, or \$8,840 annual. (Note 30-day income rounded up.)

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AN AVERAGE HOME USES 43 kWh TO POWER THEIR HOLIDAY LIGHTS Christmas lights shine bright

It's been 30 years since Clark Griswold lit up the world with his insane Christmas lights display in National Lampoon's Christmas Vacation. The 1989 movie came out three decades ago on December 1, and it's just as beloved now as it was then. If Clark Griswold were to decorate his house for Christmas with 25,000 twinkling lights this year it could cost him almost \$2,000!

What about the rest of America?

With Christmas just around the corner, neighborhoods around the U.S. are filled with homes and yards decked out with Christmas lights — string lights, tree lights, icicle lights, robotic waving Santas, spotlights showcasing wreaths hanging on windows — you name it. While Christmas lights have been a long, time-honored tradition during the holiday season, what many people fail to realize is just how much these lights may be costing them.

While we make quite a few assumptions in the calculations below, the math ultimately shows that America uses a lot of electricity for shining a light on Christmas.

Types of Christmas Lights

Christmas Tree

The average strand of 100 mini lights that you can find at your typical hardware store uses about 45 watts per strand. That isn't too much when you compare it to other items that use electricity, but the average Christmas tree requires about 10 strands of these lights. 1,000 lights at 45 watts per strand is 450 watts to keep your Christmas tree lit. This is about the same number of watts used to power your 55-inch flat screen television.

Ultimately, when it comes to Christmas tree lights, if you can keep your lighting simple, lighting your Christmas tree is one of the least expensive Christmas lighting activities.



However, some of the other Christmas lights can be far more costly.

Outdoor String Lights

Those big festive pre-lamped bulbs that really make your house pop are a great addition to any home's roof or windows, but these bulbs also come with a high operational price tag. The average strand of 100 of these lights uses 500 watts of energy. To cover a traditional two-story home, you will need around 20 strands of these lights, which comes to a whopping 10,000 watts of energy. That is about as much energy as you need to heat a 1,500 square foot home with an electric furnace.

Outdoor Tree Lights

Have a few large trees in your front yard? The average 20-foot outdoor tree requires around 20,000 lights. The average C9 multicolored outdoor Christmas lights consume around 175 watts per strand of 25 lights. If you have 80 strands of these to cover your trees, that is about 14,000 watts of energy per tree.

How much energy is that? It is about the same as running your oven, dryer, dishwasher, microwave, toaster, and washer all at once, meaning those trees are taking up a lot of your electricity bill.

Christmas Decorations Requiring Electricity

We're talking about light up decorations that come in all different types of creature shapes from reindeers to animals, Santas, snowmen and anything in between. The average one of these decorations uses about 120 watts. So, if you have a pair of light up holiday animals you are only looking at about 140 watts of energy. This is about the same as using your computer monitor.

Icicle Lights

The average strand of those fun icicle lights has 95 lights on it and uses about 6,056 watts of energy. If you want to line your gutters with three strands of these lights, you are looking at around 18,168 watts of energy. This is about the same as washing 50 loads of laundry.

Not all Americans adorn their homes with lights like Clark Griswold, but an average American home can use 43 kWh of electricity per hour in order to power their home's Christmas lights, with the lights being on seven hours a night. This comes to 13,545 kWh per home over the holiday season. Merry Christmas and may your Christmas lights shine bright this holiday season.



MONITORING THE LINE THROUGH AUTOMATION Co-op members benefit from a smarter grid

It's a familiar scene: poles and wires stretching into the distance alongside a rural highway. This image might appear no different now than it did many years ago. But look more closely. Invisible to most of us is an overlay of new equipment—chips, sensors, and fiber—linking remote distribution infrastructure to the Eastern Illini's operations center using advanced communications technology.

Those iconic poles and wires are now part of a "smart grid" that can be operated using software and automation. For electric cooperatives like Eastern Illini, "digitalization" of electric infrastructure kicked into high gear in 2013 when the U. S. Department of Energy (DOE) funded new technology research at 23 electric co-ops across the country. That partnership has now evolved into a robust research program exploring everything from drones and smart solar inverters to cybersecurity training and carbon capture technology.

Here are some of the ways co-op members are already benefiting from a smarter grid:

• Fewer power outages. In certain situations, smart feeder switching can re-route power around problems such as downed power lines, which reduces the number of people affected by an outage.

• Cost savings from increased efficiency. Many of the new technologies are improving the efficiency of our operations—from reducing the amount of electricity lost in transmission to reducing the need for sending out trucks. These cost savings are passed on to members.

• Improved safety for co-op employees and the members. The data from smart technologies a more detailed view of what is happening on the electric system. The research partnership between electric cooperatives and the U.S. DOE, including the national laboratories, is enabling co-ops nationwide to increase their total solar energy capacity, install cutting-edge batteries for energy storage and microgrids, develop data analytics tools and find new ways to capture emissions from coal and natural gas power plants.

This partnership gives electric co-ops access to an amazing network of researchers, including researchers at Carnegie Mellon University, Purdue University, and the University of California at Berkley.

So, the next time you are driving down a long highway and you see poles and wires stretching into the far distance, know there is more to that system than meets the eye. While the electricity in your home powers the toaster just as it always did, that electricity is more efficient, more reliable, and safer thanks to innovation made possible by cooperation.

Monitoring the Line for Reliability

Electric co-ops use a variety of monitoring and automation technologies that improve power reliability, shorten outage times and reduce labor time for crews. Here are four technologies we use to improve reliability.

Drones

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Drones may be used to inspect the power lines we maintain. Drones can provide infrared evaluation to locate hot spots on power lines and vegetation assessment to locate trees and other vegetation that can cause outages.

Power Sensors Power sensors typically

clamp on or connect to the power line and provide near real-time reporting on power, voltage, current and more – all of which helps to provide more reliable energy to consumer- members.



Advanced metering infrastructure (AMI) provides real-time data to the co-op. In addition to meter reading, this data helps us detect faults and other potential problems on the electrical system, resulting in increased power reliability forconsumer-members.

Reclosers

A recloser acts like a circuit breaker for power lines. When a problem occurs, the recloser temporarily shuts off power. If the problem is temporary, the recloser restores power. (This is why you sometimes see the power blink.) If the problem persists, the recloser will shut off power until a crew can make repairs. The recloser's antenna provides wireless, real-time data back to the co-op.

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ELECTRIC VEHICLES OFFER MANY BENEFITS The electric car movement is gaining speed



The electric car movement is gaining speed. Offering many benefits to both owners and the environment, driving an electric car emits 54 percent fewer carbon dioxide emissions per mile than the average new gasoline car. Moreover, the cost of "fueling" an electric vehicle averages \$1.20 per gallon, much less than the average cost of a gallon of regular gasoline.

With more than 1.5 million electric cars currently operating in the U.S., electric car sales are forecasted to surpass 3.5 million per year by 2030.

Not all electric cars operate the same way. There are four main types of electric cars on the roads today.

Hybrid Electric Vehicles (HEVs) are the type of electric car that has been on the market the longest. HEVs include a small battery pack that is not charged by plugging in, but rather the batteries in hybrids are charged by the internal combustion engine and/or the braking process. HEV's function as batteryassisted vehicles and are not powered solely by batteries at any given time. Battery Electric Vehicles (BEVs, also known as EVs) do not rely on any gasoline to power the vehicle and have zero tailpipe emissions. EV operators simply plug their vehicles into their home electric grid or a public charging station to charge. BEVs also generate electricity from braking as a secondary energy source. Unfortunately, EVs are somewhat limited in how far they can drive on a single charge. Most EVs have all-electric ranges of 80 to 100 miles, while a few have ranges up to 250 miles. On longer road trips, EVs rely on the availability of charging stations, which are sometimes difficult to find. Depending on the model, it may take anywhere from 30 minutes to several hours to recharge a vehicle.

Plug-in Hybrid EVs run on both battery power and gasoline. They have much smaller battery packs than BEVs. The all-battery range in these vehicles is typically between five and 30 miles, and then the internal combustion engine is responsible for anything beyond that. Plug-in hybrids effectively reduce operator emissions for short trips and longer trips are powered by gasoline. Range Extender Hybrid EVs (REHs) function the same as plug-in hybrids, but have higher battery ranges due to design differences. Examples include the BMWi3 and the discontinued Chevrolet Volt. Some REHs drive more than 50 miles on a single charge. In addition to battery power, they also feature a traditional internal combustion engine with some models making more than 40 miles per gallon once the battery is drained.

It is worth noting that EV battery ranges can vary depending on weather conditions. For example, cars must work harder to run in colder temperatures and using the defrost or heat decreases the range. At-home charging times depend on how you charge at home (120 volts versus 240 volts). These are caveats you will want to consider when shopping for an EV.

Eastern Illini has a Chevy Bolt EV and we welcome your questions. Just give us a call at 1-800-824-5102 or email us at info@eiec.coop to discuss the many benefits of owning an EV.



This has been a hard year for everyone. Remember the reason for the season and let hope, love and compassion fill your heart and home. Give thanks for what you have and give what you can to bring joy to others in your community.

Merry Christmas from Eastern Illini Electric Cooperative, your member driven and community focused cooperative providing safe, reliable energy solutions and exceptional service.

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