

FreeState Electric Cooperative, Inc.

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Office Hours: Monday-Friday, 7:30 a.m.-4 p.m.

Tip of the Month

Is your water heater warm to the touch? Consider insulating it to save 7 to 16 percent annually on water heating costs. Follow the manufacturer's recommendations. Source: energy.gov

FROM THE ACCOUNTING & FINANCE MANAGER

Consolidation Continues to Achieve Financial Success and Stability



Michelle Meyer

FreeState Electric Cooperative's first two years have been financially successful, and that makes us all very happy!

In 2017 the cooperative

experienced low kilowatt hour sales due to the mild weather in both summer and winter months. Despite those lower sales, FreeState was still able to give money back to our members in the form of a consolidation savings adjustment, margin stabilization adjustment, and capital credits.

The consolidation savings adjustment was given back to all members due to the savings the consolidation achieved. The co-op performed much better than anticipated, and members were rewarded with their share of \$400,000 as a bill credit. Members who are serviced by Kansas Electric Power Cooperative (McLouth District) were also given back their share of \$300,000 when FreeState received money back from KEPCo as a cooperative member. That savings was passed down to McLouth members.

The cooperative paid out \$700,000 in capital credits general retirements, and over \$800,000 in estate and final bill capital credits retirements. Capital credits are excess margins over the cost of operating that are paid back to members over time because the cooperative is a non-profit organization.

In 2018 sales were up due to the prolonged winter, hot summer, and unseasonably warm fall.

Again, the cooperative is in the position to provide money back to members. In February you'll see your share of \$400,000-another consolidation savings adjustment. East District members will see another margin stabilization amount from our power supplier KEPCo with their share of \$300,000. And, capital credits will again be allocated in June and paid out in July.

We anticipate capital credits to be on target for about the same amount members received last year.

Why can we give you money back? Because we are a cooperative and each payment you make is an investment. Your money is carefully handled by the staff and trustees. We are diligent with your investment and take great care to be responsible with every cent.

This means that FreeState is financially stable and ready for 2019.

As always, if you have questions about the content of this centerspread or in general, we encourage you to contact our office at 800-794-1989 or email **CUSTOMERSERVICE@FREESTATE**. COOP.

WHEN YOUR LIGHTS GO OUT

One of the questions we get asked most often is what happens during an outage. We want to answer some of those questions this month.

What happens when an outage occurs?

Members should always report an outage. Members can report outages by calling the office at 800-794-1989 or by using the SmartHub mobile app. Every call helps. Outage calls also start the dispatching process of crews to the outage to begin restoring power as quickly and safely as possible.

If an outage occurs during regular business hours, your call is routed to our Topeka office first, and one of our member service representatives records your service address and enters it into our outage system. Typically, our member services representatives have little information initially about the outage so keep that in mind when making phone calls to the office. FreeState's engineering and line departments are then notified by our outage system that there is an outage and crews are then dispatched to the location to begin troubleshooting.

If an outage occurs outside regular business hours, your calls go to our third-party call center to go through the same process.

Linemen are required to rotate being on call. If an outage occurs during that time, they are dispatched from their home to respond to the outage. Keep in mind that after-hours dispatching may take longer due to the nature of getting crews to the location. With only two linemen on call after hours and many areas to cover, it may take longer than an outage occurring during the day when all crews are available and able to cover a larger area.

If after-hours outages are significant, FreeState may call in our employees to assist with after-hours calls or dispatching crews to the reported outages.

During storm season (spring and winter) advance notice is often given by weather bureaus. FreeState monitors these conditions to be as proactive as

possible. Additional linemen and employees are placed on call to serve members quicker in the event of a significant outage or infrastructure damage caused by a storm. Scout teams can also be assembled to help categorize outages accordingly.

During outages, there are a few things that keep linemen from actively responding, like a fire in progress, a gas leak, and lightning. As soon as it is safe to do so, our crews are working to restore power no matter how cold, rainy, or snowy it gets.

Why are my neighbor's lights on, but I'm in the dark?

Your home may be on a different distribution line than your neighbor. To handle the load, neighborhoods, businesses, towns and individual residences use different lines, substations, and electric poles to provide power.

Why aren't you coming to my residence first?

When FreeState has an outage, we follow a protocol for restoring power quickly. Relatively small outages or isolated outages are dispatched in the order they are received or the availability of a crew. However, during significant outages, the priority in a major outage is emergency management, fire stations, and hospitals.

During an outage, we begin by determining the source. We assess our generation facilities and determine the source to begin repairs. There is a standard protocol for repairing and restoring during an outage. Our infrastructure is the backbone of delivering power. Transmission lines that carry electricity from generation stations are first on the list, followed by:

- ▶ Substations where high-voltage power from a transmission line is reduced for member usage.
- Distribution lines that carry electricity from substations to each neighborhood, or distribution hubs.
- ▶ Tap lines that serve direct homes and businesses.

Individual lines to customers. These are the most difficult and time-consuming in the restoration process.

What causes an outage?

There are common reasons why outages occur. The chart shows that a majority of outages are weather-related events, but there are a few other causes.

ANIMALS AND TREES making contact with wires can cause an outage. To limit this, we trim trees away from lines and install animal guards on pole-top transformers. We use squirrel guards, raptor protectors, and use other construction methods to keep animals out of harm's way, and to keep them from causing an outage.

OTHER EVENTS like digging, construction, or auto accidents can cause damage to power poles or lines. In our area, it is also common to have farm-related outages like equipment getting tangled in the wire. It is essential to be aware of your surroundings while working on the farm. It not only ensures your safety but can limit damage-causing accidents.

EQUIPMENT FAILURE can also be a reason for an outage. In rare cases, transformers and other equipment may fail during normal operations. Alternatively, an overload may also cause failure. We typically see these problems on extremely hot or high peak days during May through September.

POWER SUPPLIER failure can also cause outages. As a distribution cooperative, we are reliant on Evergy and KEPCo. If one of those suppliers is experiencing an outage, it may impact our system.

On average it takes about 45 minutes to repair a transformer, and an average of four hours to replace power poles depending on the type of pole. Smaller single phase poles take less time to repair than larger three phase or transmission poles.

Outages may vary depending on the season and can last a few seconds to a few hours. Power can also be out for days when the situation is severe. Our crews are often out in dangerous weather conditions to restore power, especially when examining the lines by foot to find the source of an outage.

While we cannot control the weather, we can work to limit outages by maintaining equipment.

What do we do to prevent outages?

PLANNED OUTAGES are a part of upgrading and repairing equipment safely. They are used to limit longer, unplanned outages later. We notify you before a planned outage and make every effort to limit negative impacts. Before a planned outage a phone call alerting you of the outage is sent out.

TREE TRIMMING is one maintenance practice we can do to help limit tree damage. FreeState has a designated tree crew at each office to work specifically on right-of-way clearance. They can also be called out to remove damaged trees so that linemen can get to an area to begin working safely.

INVESTING IN NEW EQUIPMENT AND

TECHNOLOGY is also a way to maintain infrastructure by replacing aging equipment, installing upgrades for efficiency and building infrastructure that keeps up with the increasing demand for power.

Preparing for the worst is what we do. We train our employees to provide the safest, most efficient service to our members. Our member service representatives are trained to respond to your calls quickly, and our crews are trained to react and repair equipment as quickly as possible. We also have backups built into our infrastructure, and we keep a supply of materials on

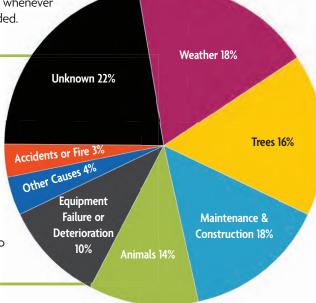
hand so we are ready whenever a replacement is needed.

2018 Outage Summary

Unknown outages are the largest piece of the pie. These are classified unknown when a direct cause can not be determined by our linemen. It may also mean there were multiple factors involved, and not one could be concluded as the root cause.

Other outages range from overloaded transformers, member caused outages, or anything else not categorized.

Thankfully, accidents are a small portion of outage causes. These include automobile, farm related accidents, and fire related outages due to damaged infrastructure.



Generator Safety How to safely use backup power sources

Generators, portable or permanent, are handy to power life-sustaining medical equipment, provide a light or keep freezers from defrosting during prolonged power outages, but proper usage is important.

"Generators as a backup power source are handy, but should be used safely," said **MATT LAMBERT**, FreeState Electric Cooperative's Energy Use Coordinator. "Members need to make sure they are taking proper precautions when utilizing generators, including where you place a portable unit, weather conditions, and how it's powered."

There are two ways to connect portable generators to your home.

▶ POWERED CIRCUIT PANEL – Powering a generator in this way involves a power transfer switch, which monitors incoming voltage from FreeState lines. If you choose to install a generator

in this manner, always use a certified electrician.

▶ DIRECT PLUG – Using heavy-duty extension cords directly plugged into a generator is an option to power a limited number of appliances. For example, a refrigerator or freezer.

Portable generators are typically gas powered and moveable. Before using the unit, read and follow all the manufacturer instructions and recommendations. Check cords and ensure that the unit can handle the wattage or amperage of the appliances you plan to use it for. The generator should have more output than the wattage of your appliances plugged into it in order to create the extra electricity it takes for the initial power surge. Make certain there is nothing plugged into the generator when turning it on.

It is important to perform regular maintenance on your generator. It is

recommended that

generators be turned on once per month for 10 minutes to check for any issues.

Always use your generator in a dry area and make sure it is grounded properly. If conditions are damp, use the generator only if necessary. You can protect the

Portable generators are typically gas powered and moveable. Before using the unit, read and follow all the manufacturer instructions and recommendations.



unit during these conditions by putting it under an open, canopy-like structure. Make sure water cannot form under the unit.

"Never plug a generator into a wall outlet or structure," said Lambert. "This causes back feeding and could electrocute a neighbor or FreeState lineman working to restore power."

"A back feed is when electricity is fed back through a system and meter into the power line and that creates a problem for anyone that could be near that line, especially during prolonged storm outages," Lambert added.

It's important to allow your generator to shut down and cool before refueling, and to store the fuel away from the generator in the proper storage container.

Portable generators may be helpful, but there are also hazards members should be aware of. They include carbon monoxide poisoning from the exhaust, electric shock or electrocution, and fire risks. According to the Federal Emergency Management Agency (FEMA) most deaths and injuries associated with portable generators are from CO poisoning when generators are used indoors or partially enclosed spaces.

Take precautions against carbon monoxide poisoning. Never use the generator in closed areas or indoors and install a battery-operated carbon monoxide detector and test it often. Know the signs of carbon monoxide inhalation. Symptoms include dizziness, nausea, headaches, and lethargy. If you suspect you or someone you are with is showing these symptoms, get some fresh air and seek medical attention.

If you are using a permanent generator it must have a transfer switch installed by a certified electrician to avoid back feeding. Due to the danger associated with this type of backup power source a transfer switch is required by the National Electrical Code.

Permanent or standby generators also pose significant risks if not installed

Members need to make sure they are taking proper precautions when utilizing generators including where you place a portable unit, weather conditions, and how it's powered.

MATT LAMBERT, FREESTATE'S ENERGY USE COORDINATOR

safely correctly. Installing a permanent generator is extremely dangerous and not a do-it-yourself project. ALWAYS contact a certified electrician to install a permanent generator and follow these safety tips for using a generator:

- ▶ Operate a portable generator in well ventilated locations outdoors away from all doors, windows and vent openings to avoid carbon monoxide poisoning. The instructions that come with it are not meant for the recycle bin. Read and follow them; they are important.
- ▶ Turn the generator on before using it. Once it's running, turn your appliances and lights on one at a time to avoid overloading the unit.
- ▶ Generators are for temporary use and limited load; prioritize your needs.
- Never use a generator in a puddle or standing water and never touch with wet hands.
- ▶ To protect a portable generator from moisture, operate it on a dry surface under an open, canopy-like structure.
- ▶ Never use or install a generator in an attached garage, even with the door open.
- ▶ Turn off portable generators and let them cool down before refueling. Never refuel a generator while it is running.
- ▶ Store fuel for your portable generator in a container that is intended for the purpose and is correctly labeled as such. Store the containers outside of living areas.
- ► Keep children and pets away from generators, especially portable ones. Many generator components are hot enough to burn you during operation.

Medical Necessity Notification Policy

There are times that events—sometimes beyond the cooperative's control—cause power outages. If your health or well-being depends on the equipment that requires electricity, please contact us. We will do our best, in the event of an outage, to get power restored as guickly and safely as possible.

FreeState does keep a record of residential service locations where life-sustaining electrical equipment is used. When planned outages or services interruptions for nonpayment are scheduled, we will attempt to communicate notice in advance so preparations can be made to be without power.

MEDICAL NECESSITY NOTIFICATION DOES NOT GUARANTEE PRIORITY SER-**VICE RESTORATION**, and member accounts with this designation are not exempt from planned interruptions. These designated accounts are also not exempt from their financial responsibilities or termination of service by FreeState policies. Notifying FreeState of your situation does not guarantee uninterrupted electric service, nor does it ensure immediate attention to your service should the area experience a power outage. It does alert us to the situation. Letting us know your specific needs allows FreeState to communicate promptly with you.

Once you contact us and alert us of your situation, FreeState will designate your account as a Medical Necessity. You need to contact us so that FreeState can be aware of your condition, and in the event of a scheduled disconnection, we can make every effort to contact you so alternative arrangements can be made.

In addition to contacting the cooperative, we also offer these additional suggestions for your safety and strongly encourage you to implement them:

- ▶ Obtain a backup source of power recommended by the manufacturer of any life-sustaining or critical care equipment you may have in your home. For example, battery back-ups or standby generators can provide you with electric power if service from the cooperative is interrupted.
- ► Have a plan. Talk to relatives or friends and have backup places you can go in the event of a significant power outage.

You are important to us. Please call our office at 1-800-794-1989 to notify FreeState of any medical necessity needs.



Energy Use Coordinator MATT LAMBERT will answer questions about energy efficiency, renewables, co-op programs, and everything in between. Email Matt your question at askmatt@freestate.coop.

DEAR MATT,

I'm thinking about getting a generator for my home. What size or type do I need to look at getting?

That's a timely question! Generators are a great source of backup power.

A portable generator is designed to have a few things plugged into it. A standby generator powers all or parts of your home and can often automatically start when the power goes out. A standby generator should always be installed by a certified electrician.

I'm going to focus on portable generators. The short answer to your question is wattage. Generators rate by wattage and appliances in your home are also assigned wattage by the energy they consume. Ideally, you could add up the wattages needed during emergencies, and that determines the generator you'll need. However, there's a little more to it than that.

The box shows wattages for a few common home appliances. You can find this information for a specific appliance in the owner's manual. For example, the items in that box add up to 2500 watts to start up. The recommendation is that you oversize your unit for surges and additional load, so for this example, I would start looking for a 3,000-watt generator.

Starting wattage versus running wattage can be confusing. Generator manufacturers typically provide you with a wattage calculation guide that can assist you in determining which unit is the right fit for your needs.

Do not forget about sensitive electronics. If this is something that you need, you may want to make sure the unit you purchase has automatic voltage regulators for protection. The bottom line is that the generator you purchase should fit your needs. Also, when you do purchase and utilize your generator always follow proper generator safety.

- Five LED lightbulbs = 50 Watts
- ► Energy Star refrigerator = 300 Watts (1200 W starting)
- ► Furnace fan ¼ Hp = 600 Watts (1000 W starting)
- ► Radio= 100 Watts
- Fan = 40 Watts (120 W starting)

DEAR MATT,

My bill seemed very high last month, and I'm not sure why. I used a space heater to supplement and kept my furnace low. So, why is my bill not lower?

Space heaters can make perfect sense when the temperatures drop, but they often don't make "cents" when looking at the bigger picture.

One of the most common misconceptions is that space heaters save you money. They can be a practical solution, butyou still have to plug in a space heater, and those can pull quite a bit of electricity.

Although space heaters come in all shapes and sizes from a large elaborate looking wooden fireplace to a small ceramic box most use around the same amount of electricity. Standard size is 1,500 watts, and no matter how much you spent on your space heater all 1,500-watt units use the same amount of electricity and put out the same amount of heat.

Space heaters can save energy if you want to heat a small space, or supplement heat in one room. For example, if you are watching television and want to make it toasty, you can plug in a small space heater rather than crank up the furnace and heat the entire house. You can save money this way by turning down your primary heating source but use the space heater to keep the room you are in warm. Space heaters are not cost-effective when it comes to heating larger areas or multiple rooms. Your furnace is going to be much more cost-effective.

Instead of using space heaters to take the cold away, try getting to the real problems that cause you to need them. Is there cold air coming into your home or an inefficient furnace? FreeState does have resources, like Attic Report Card, that can help you determine if you are losing heat through your attic.

Space heaters can be a great way to heat a location sporadically or a single room and are convenient because of their portability and ease of use. I use one myself in a shed that I only need to heat when I am working in it. They are just not a great way to save money on your utility bill.

Do some research and purchase a unit that fits your needs. Some use radiant heat to heat objects and people, some use

convection that warms the air, and others are combination heaters that utilize both radiant and convection.

If you are going to use a space heater just remember that . your bills can inflate if you're using a space heater on top of another source.

Space heaters are one of the leading causes of fires in homes.

Follow these safety tips:

- ▶ Purchase a heater with the seal of an independent testing laboratory.
- ▶ Keep the heater at least 3 feet away from anything that can burn, including people.
- ▶ Choose a heater with a thermostat and overheat protection.
- ▶ Place the heater on a solid, flat surface.
- Make sure your heater has an auto shut-off to turn the heater off if it tips over.
- ▶ Keep space heaters out of the way of foot traffic. Never block an exit.
- ▶ Keep children away from the space heater.
- ▶ Plug the heater directly into the wall outlet. Never use an extension cord.

To get an idea of your space heaters daily operating cost, you can calculate the following:

If you have a ,500-watt space heater that runs 24 hours per day and you pay .11401 (average FreeState residential rate) per kWh, what would that cost be to operate the space heater?

If you run the space heater all day it will cost approximately \$4.10 for that unit.

Using that same formula, if you calculate usage for only three hours per day in the evening when you're home watching television the cost to operate that space heater would only be \$0.51 to operate.

Now if you run that space heater only one hour per day in the morning while you get ready, the cost to operate that space heater would only be \$0.17.

As you can see the longer you utilize the unit the more likely costs add up quickly.

However, by reducing your furnace temperature and supplementing with a space heater only where you are, you could save.



YOUTH PROGRAMS

BUILD YOUR

Confidence. Leadership. Network

FreeState Electric Cooperative invests in our youth with opportunities that are designed to reflect the realities of our society and its preference for dynamic, personal interactions. In today's professional world, employers and thought leaders want to see presenters who make a connection with the audience while communicating a message. These experiences are all-expenses-paid and will truly be experiences of a lifetime for area youth.

Two students will have an opportunity to visit Washington, D.C. in June, and two students will experience Steamboat Springs, CO, at Cooperative Leadership Camp in July.

Any high school junior living in the FreeState Electric Cooperative territory, who has a parent or guardian who is a member of the cooperative is eligible.

Electric Cooperative Youth Tour

Each year cooperatives select area youth for this opportunity as part of our strong commitment to the community and our mission to inspire future generations to become leaders.

This trip opens the eyes of many students to future possibilities in leadership roles while building lifelong friendships. Delegates have visited the Holocaust Memorial Museum, Smithsonian Museums, Mount Vernon, Arlington National Cemetery, attended a professional baseball game at the Nationals Stadium, and had a laugh at the production of Shear Madness at the John F. Kennedy Center for the Performing Arts. Delegates have also attended the NRECA Youth Day that brought together 1,700 youth from 43 states to hear speakers.

Cooperative Leadership Camp

At Cooperative Youth Leadership Camp, the campers will participate in daily membership meetings where they established committees and elect a general manager and board of directors. Campers will also enjoy area activities including river rafting and participating in camp activities such as volleyball, swimming, and a talent show.

The youth will learned about the workings of electric cooperatives through a variety of activities. Last year, Yampa Valley Electric's linemen led a high voltage safety demonstration, and campers competed in building a model transmission line out of craft supplies. They also toured the Trapper Mine and Craig Power Plant.

How to apply

Every application received by the **DEADLINE OF FEB. 11, 2019**, will be reviewed and scored. Don't miss your opportunity! Students who are interested in applying can find more information at http://bit.ly/FECyouthprogram or www.freestate. coop/youth.

Winter Assistance Agencies

The following agencies have been known to assist people who may need help paying utility bills. FreeState Electric Cooperative is not affiliated with any of these organizations. Contact information is provided as a courtesy to you.

- **▶** GOOD SHEPHERD THRIFT SHOP 913-845-3964 *Jefferson and Leavenworth counties only. Must have a copy of a bill
- **▶ JEFFERSON COUNTY SERVICE ORGANIZATION** 785-863-2637
- **CATHOLIC CHARITIES COMMUNITY SERVICES** Leavenworth County: 913-651-8060 Jefferson County: 913-433-2039
- NORTHEAST KANSAS **COMMUNITY ACTION PROGRAM** Hiawatha Central Office: 785-742-2222
- SALVATION ARMY Leavenworth 913-682-6253 Topeka 785-233-9648
- LIEAP LOW INCOME ENERGY **ASSISTANCE PROGRAM** 800-432-0043 or http://www.ks-energyassistance.com/lieap
- **AMERICAN RED CROSS** Topeka: 785-234-0568 Leavenworth: 913-682-6222 Atchison: 913-367-5355
- ▶ PENN HOUSE/BALLARD CENTER 785-842-0440
- ► KANSAS CHILDREN'S SERVICE **LEAGUE** 785-357-4763

*Must have children living in the house

- **DOORSTEP TOPEKA** 785-357-5341
- ► LEAVENWORTH ASSIST CENTER 913-682-7873
- **LET'S HELP** 785-234-6208 *By appointment only
- TOPEKA NORTH OUTREACH 785-286-1370
- KANSAS GIFT OF WARMTH 800-794-4780
- **WARM HEARTS OF DOUGLAS** COUNTY 785-841-5756
- ► NEKAP JACKSON COUNTY ONLY 785-364-4055

Co-ops Vote Event Brings Legislators to FreeState Electric



Legislators visited the Topeka office on Dec. 4 to discuss issues likely to be addressed in the

Kansas legislators met at FreeState Electric Cooperative's Topeka office on Tuesday, Dec. 4 to discuss issues important to Kansas electric cooperatives.

FreeState board and staff met with the delegation as a part of the Co-ops Vote program. The meeting was facilitated by Kansas Electric Cooperatives government relations team to provide timely updates on issues facing cooperatives as the 2019 legislative session begins.

"These Co-op Votes events are so important when it comes to sharing information," said Steve Foss, CEO. "When we can meet face-to-face with our legislators it allows us to share how decisions they make impact our members directly. It also allows us to provide information on how cooperatives differ from other utilities."

Legislators attending were:

- ▶ REP. FRED PATTON (R-Topeka)
- ▶ REP. BRENDA DIETRICH (R-Topeka)
- REP. JIM GARTNER (D-Topeka)
- ► REP. ANNIE KUETHER (D-Topeka)
- ► REP. JIM KARLESKINT (R-Tonganoxie)
- ▶ REP. BOOG HIGHBERGER (D-Lawrence)
- REP. RANDY GARBER (R-Sabetha)
- ▶ SEN. MARCI FRANCISCO (D-Lawrence

Issues discussed were:

- ▶ KS Underground Utility Damage Prevention Act (KUUDPA)
- ▶ Utility Ratemaking
- Retail Wheeling Reality
- ▶ Renewable Generation is Not Cost- Free
- ► Rural Broadband Accessibility

Interested in Serving on the Board of Trustees?

FreeState will begin the search for board of trustee candidates in January. If you are interested in serving the cooperative on the board, please contact the office at 800-794-1989 for information on how to apply. You can also visit the website at www.freestate.coop for more information. **DEADLINE FOR APPLICATIONS IS FRIDAY, FEB. 1, 2019.**