

President's Report



Josh DeWees
President/CEO

Understanding factors that impact your energy bills

February brings some of the coldest weather of the year, and as our home heating systems work harder and longer to keep us warm, we typically see higher energy bills. There are a few key factors that affect electricity prices, as well as a few ways you can make a meaningful impact on home energy savings.

When you receive your monthly bill from Spoon River Electric, you're provided with a summary of how much electricity you used during the billing cycle. But, you might be surprised to learn that beyond your monthly energy consumption, there are external factors that can impact the cost of electricity.

Fuel prices

Spoon River Electric purchases electricity from our power generation partner, Prairie Power Inc. (PPI), at a wholesale cost, then we deliver that power to our local communities. The cost of generating and transmitting electricity from our generation partner accounts for a significant portion of the cost to provide electric service to local homes and businesses — and the cost of fuels that are used to generate that electricity, such as natural gas and coal, fluctuates based on supply and demand. While these fluctuations can impact the cost of electricity, we work closely with PPI to plan ahead and help stabilize electricity prices for our members.

Extreme weather

While we can't control the weather, we can review weather patterns and forecasts to prepare for times of extreme cold or heat, when we know the demand for electricity will increase. But when temperatures become extremely cold and the demand for electricity spikes, the price of electricity can also increase.

Infrastructure and equipment

To cover the costs associated with providing electricity to your home or business, Spoon River Electric members pay a monthly access charge. This flat monthly fee ensures the costs of equipment, materials, labor and daily operations are covered for all members in Spoon River Electric's service territory. To ensure the reliable service you expect and deserve, we must maintain the local grid, including power lines, substations and other essential equipment.

Energy policy and regulations

Federal energy policies and regulations can have a profound impact on electricity costs. As energy generation shifts to the use of more renewable sources and stricter regulations for traditional, always-available fuel sources, such as natural gas and coal plants, costly upgrades and technologies must be constructed and deployed. These additional costs are ultimately passed to consumers.

U.S. power consumption is expected to double by 2050. Across the country, electric cooperatives are working with members of Congress to advocate for smart energy policies that reliably power our local communities.

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Spoon River Electric Cooperative

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Spoon River Electric Cooperative – By the Numbers

Miles of line energized: 1,272
Number of members served: 5,022
Number of power poles
in territory: 29,361

CELEBRATE BLACK HISTORY MONTH

February is Black History Month! Let's take a look at a few African American inventors whose contributions helped revolutionize the way we use electricity and essential devices that power life.

Read the descriptions of each inventor and their contributions, then choose the best answer to complete the description.



Annie Easley

Annie Easley started her career in 1955 as one of the first African Americans at NASA (when it was called the National Advisory Committee for Aeronautics), essentially acting as a human computer, performing manual computations for researchers. Annie was a gifted programmer and developed computer code that was used to analyze _____ energy projects, as well as batteries for early hybrid vehicles.

A. nuclear B. wind and solar C. geothermal

Annie Easley broke down barriers for women and people of color in STEM fields and won the admiration and respect of her coworkers.



Lewis Howard Latimer

Lewis Latimer worked with Thomas Edison on the development and commercialization of the incandescent light bulb. He invented a method to manufacture _____ filament to make light bulbs mass-producible. His method was patented in 1882.

A. carbon B. hydrogen C. silicon

Without Lewis Latimer's contributions, our lives would never have been so bright!



Marian Croak

Marian Croak began her career at Bell Laboratories (now AT&T) and patented more than 200 inventions. One of her greatest contributions was VoIP, or Voice over Internet Protocol. VoIP technologies are essential for today's fast-paced digital world. VoIP allows voice functionality over an _____, including helpful features for video calls and mobile messaging.

A. airwave B. audible barrier C. internet connection

Marian Croak's passion for advancing technology has improved our digital capabilities and overall quality of life.



Answer Key | Annie Easley: B, Lewis Howard Latimer: A, Marian Croak: C

Sources: Dept. of Energy, Lewis Latimer House, NASA

Energy bills continued from 18A

You have control

While many of these external factors that impact electricity costs are out of our control, we all have the power to manage our energy use at home. The most effective way to lower use is thermostat management. Since heating and cooling account for a major portion of home energy use, adjusting the thermostat to the lowest comfortable setting can help you save energy and money. Remember to service your heating and cooling system annually and replace dirty filters as needed.

You can also reduce energy use by taking advantage of off-peak periods,

when the demand for electricity is lower. Reserve energy-intensive chores for off-peak times, such as early in the morning or later in the evening, to save energy. Be sure to seal air leaks around windows, doors and other areas where gaps are possible. This will help your heating and cooling system work less and improve the overall comfort of your home.

Spoon River Electric is your local energy partner, and we're here to help. As always, we will continue working diligently to provide you with reliable power at an affordable cost.

Wrapped in savings



Ensuring your home is properly insulated can improve energy efficiency and make your home more comfortable. Insulation acts like a cozy coat that reduces heat loss during winter months and a protective layer that reduces heat gain during summer months.

Many older homes have less insulation than newer homes, but even newer homes can benefit from additional insulation. While it's not the least expensive efficiency improvement, adding insulation and air sealing your home can provide the biggest bang for your buck in energy savings and overall comfort.

The most common areas to insulate are attics, ceilings, crawlspaces or unconditioned basements, exterior and interior walls, floors and ductwork located in unconditioned spaces.

The amount and effectiveness rating of insulation required for each area varies by climate, but many websites like The Department of Energy or Home Depot provide easy-to-follow

recommendations. Visit energy.gov/insulation to learn about recommended R-values for specific areas of the home based on climate zones.

It's important to understand how insulation effectiveness is measured. Insulation is rated in R-value, which measures the material's resistance to conductive heat flow. The higher the R-value, the greater the insulation's effectiveness. The R-value you'll need depends on factors like climate, type of heating and cooling system and which area of the home you plan to insulate.

Insulation is offered in a wide range of materials from bulky fiberglass rolls to cellulose materials made from recycled paper products. If you're considering installing additional insulation, talk to an expert who can offer guidance on the right materials for your budget, climate and comfort needs.

Investing in proper insulation for your home not only enhances comfort but also reduces energy consumption.



Photo courtesy of Greg Rosenke

ENERGY EFFICIENCY TIP OF THE MONTH

If you have a home office, look for opportunities to save energy in your workspace. Use ENERGY STAR®-rated equipment, which consumes up to 50% less energy than standard models. Set equipment like printers and scanners to automatically switch to sleep or energy-saver mode when not in use. In addition to saving energy, the equipment will stay cooler, which will help extend its life. Another way to save energy in your home office is to use efficient lamps for task lighting. Replace any older bulbs with energy-saving LEDs.

Source: energy.gov



Horses gallop and so can power lines

How can galloping lines impact power transmission and distribution?

Galloping power lines are typically caused when ice and high winds occur at the same time. Freezing rain creates icicles and odd-shaped ice formations on power lines and conductors. The ice buildup changes how wind and air impact the now misshapen, ice-covered line. This change in airflow can cause the power line to start to bounce.

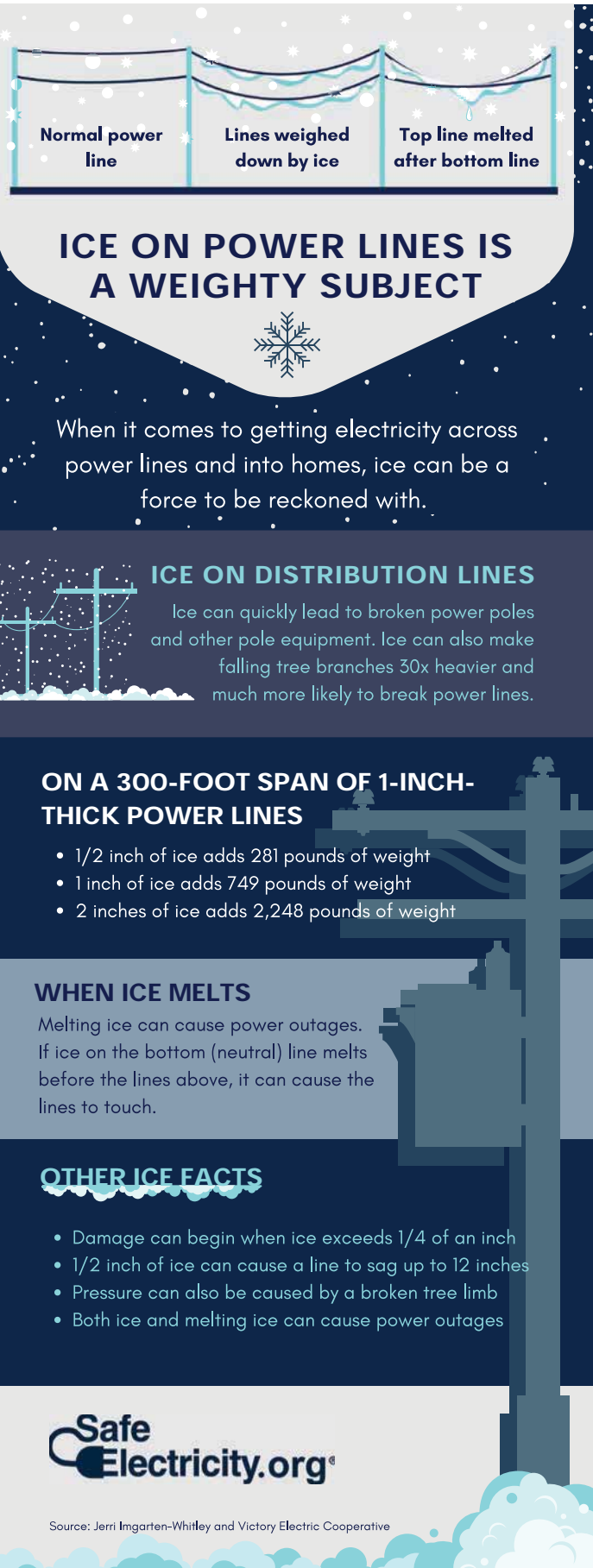
Once the lines get going, they can bounce and buck enough to hit another line, damage themselves enough to cause a power outage or even fall to the ground.

There is not much a power company can do to alleviate galloping lines, since the wild motion is caused by Mother Nature. To help prevent this, many power lines have special mechanisms, such as twisted wire or round or angular pieces of metal, attached to the line. While they can help, sometimes they are no match for severe ice and whipping wind.

Aside from ice storms, year-round storms can cause damaging winds, which can knock down power lines and blow trees and limbs onto power lines. Keep the following safety tips in mind:

- When you see power lines on the ground, stay away, warn others to stay away and contact the electric utility or 911. Lines do not have to be arcing or sparking to be live.
- Any utility wire, including telephone or cable lines that are sagging or down, could be in contact with an energized power line, also making it dangerous. Do not try to guess the types of lines — stay away from all lines.
- Be alert to the possibility that tree limbs or debris may hide electrical hazards. Downed power lines can energize objects around them, such as chain-link fences and metal culverts.
- Keep in mind that a dead line could become energized during power restoration efforts or improper use of generators.
- Never drive over a downed line. It could start a chain reaction and cause additional poles or other equipment to collapse.
- If you are in a car that has contacted or is near a downed power line, stay in your vehicle. Wait until the utility crew has arrived and deenergized the line. Warn others not to approach the car.
- Only exit a car or cab near or on downed lines if there is a fire. If this happens, cross your arms over your chest and make a solid jump out and away from the car with both feet together. Then hop away at least 50 feet or more while continuing to keep both feet together.

For more electrical safety information, visit SafeElectricity.org.



The infographic is set against a dark blue background with white snowflakes. At the top, three panels illustrate the process of ice accumulation on power lines: 1. 'Normal power line' shows a straight line. 2. 'Lines weighed down by ice' shows the line sagging. 3. 'Top line melted after bottom line' shows the top line broken and the bottom line still sagging. Below this is a large white arrow pointing downwards containing the text 'ICE ON POWER LINES IS A WEIGHTY SUBJECT' and a snowflake icon. The next section, 'ICE ON DISTRIBUTION LINES', features an illustration of a power pole with a broken line and text explaining that ice can lead to broken poles and falling tree branches. The 'ON A 300-FOOT SPAN OF 1-INCH-THICK POWER LINES' section lists the weight added by ice. The 'WHEN ICE MELTS' section explains that melting ice can cause power outages. The 'OTHER ICE FACTS' section lists additional risks. The bottom of the infographic features the SafeElectricity.org logo and source information.

Normal power line **Lines weighed down by ice** **Top line melted after bottom line**

ICE ON POWER LINES IS A WEIGHTY SUBJECT

When it comes to getting electricity across power lines and into homes, ice can be a force to be reckoned with.

ICE ON DISTRIBUTION LINES

Ice can quickly lead to broken power poles and other pole equipment. Ice can also make falling tree branches 30x heavier and much more likely to break power lines.

ON A 300-FOOT SPAN OF 1-INCH-THICK POWER LINES

- 1/2 inch of ice adds 281 pounds of weight
- 1 inch of ice adds 749 pounds of weight
- 2 inches of ice adds 2,248 pounds of weight

WHEN ICE MELTS

Melting ice can cause power outages. If ice on the bottom (neutral) line melts before the lines above, it can cause the lines to touch.

OTHER ICE FACTS

- Damage can begin when ice exceeds 1/4 of an inch
- 1/2 inch of ice can cause a line to sag up to 12 inches
- Pressure can also be caused by a broken tree limb
- Both ice and melting ice can cause power outages

SafeElectricity.org[®]

Source: Jerri Imgarten-Whitley and Victory Electric Cooperative