



Bluestem NEWS

www.bluestemelectric.com

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Questions After the Ice Storm Answered

One of the most frequently asked questions after the 2007 ice storm is "if the ice storm did so much damage, why doesn't Bluestem put the power lines underground?"

There are a number of reasons why underground power lines are not a straight forward alternative to overhead lines. Some of these are technical reasons and some are due to land use, but the

main reason is installation and maintenance cost.

Higher Cost for Members

Many studies have been conducted the world over looking at the cost of underground power lines.

All have come to the conclusion that the cost of underground lines depends on a variety of factors including the voltage, the

length and type of cable used, the nature of the route and the type of ground conditions.

It is possible that underground cables at a high voltage (transmission level) could be at least 10 times more expensive to install and maintain than an equivalent overhead line.

Some variables that increase the cost of underground power lines are the cost of:

- Cable;
- Excavation, cable laying and land reinstatement;
- Cable connections and joining required, including terminals;
- Additional equipment to maintain service;
- Overcoming the technical issues associated with using underground cable.

Bluestem knows from many years of experience that overhead lines are the most cost-effective way to supply electricity. If the lines were laid underground, the additional cost of doing so would ultimately be paid for by Bluestem members through higher bills.

In some circumstances underground lines are cost effective as contractors pay for the additional cost of their installa-

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Nominating Committees Selected

Each year the Board of Trustees of the cooperative appoints nominating committees whose function is to nominate one or more candidates for Trustee positions with expiring terms. The Bluestem Board of Trustees has appointed the members listed to the right to serve on the respective nominating committees.

Below is a list of Bluestem Board of Trustee positions that will expire this year.

District 1, Position 2
Bruce Meyer, Palmer

2008 Bluestem Nominating Committee

Districts 1 & 2 (meeting in Clay Center on October 7)

District 1

Jerry Burger, Palmer
Quentin Meyer, Linn
Rod Stewart, Washington

District 2

Carl Fengel, Oak Hill
Richard Renz, Riley

Districts 3 & 4 (meeting in Wamego on October 6)

District 3

Norman Lally, Olsburg
Bob Heptig, St. George
Patrick Blanka, Wamego
Ed McClintock, Soldier

District 4

Glenn Czirr – Alma
David Wertzberger, Alma

District 2, Position 1
Gary Buss, Leonardville

District 3, Position 1
Harlan Sump, Olsburg

District 4, Position 1
Ervin Gnad, Alma

Questions After the Ice Storm Answered, Continued

tion.

There would also be restricted land use in a corridor close to the underground cable. No building would be possible and planting restricted to shallow root systems so as not to interfere with the cable.

Maintenance and Repair

Faults on underground lines are generally much more difficult to locate, and take longer and are more expensive to repair due to material costs, plus the requirement to excavate and reinstate the ground.

Overhead facility damage is easier to locate than underground and can generally be repaired quicker.

Underground interruptions may be less frequent, but typically last longer due to more complex repair requirements.

Lightning damage and corrosion of underground electrical systems often show up days or even months later, causing additional outages and inconvenience to members.

Storm winds can damage both types of systems causing outages. Overhead systems face outages resulting from ice, trees and debris blowing into lines.

Underground systems face outages from lightning, trees collapsing on above-ground transformers and switch boxes or from tree root systems uprooting buried cable when trees topple.

Because of the excavation

We often forget that while a subdivision may be solely served by underground lines, all electric service eventually comes back above ground and connects to overhead service, either in the subdivision next door, or further down the road where overhead distribution lines move power to other areas. Thus, exposure to above ground electric service from weather, animals, and trees is never fully eliminated.

needed for underground lines, it is common to have members with overhead lines restored before those with underground lines to their homes.

Overhead lines are susceptible to damage, but the damage can usually be readily identified.

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For aesthetic reasons, many developers contact Bluestem and request to bury their lines when they are first laying out a new subdivision; this is paid for by the developer. Thus, the added cost for underground service and other subdivision amenities are typically included in the price of the new home.

Bluestem recognizes that it would be unfair to charge all of its members a higher rate to cover the cost of underground wire, since not everyone would get the benefit nor necessarily be willing

or able to pay the higher cost.

In general, the basic distribution line costs are anywhere from a third to half again more to install underground and may be even more

if additional work needs to be done. The builder/homeowner is responsible for paying the cost difference between new overhead primary or secondary lines and the new underground facilities prior to construction.

Underground Drawbacks

Cost estimates vary widely from project to project because of a number of factors, including terrain conditions, rock, streams and the existence of obstacles or barriers, such as roads and structures.

The costs of running distribution facilities underground are lower if construction is new rather than if there is a conversion from an overhead to an underground configuration.

Underground powerlines also create more complex switching and control needs and transformers placed on the ground can have their service lives cut in half because they are more vulnerable to rusting.

Visual inspection of underground lines is impossible, making maintenance far more difficult, costly, and time consuming.

Ultimately, installation and repairing underground lines is more complex and costly than construction of and repairing overhead lines.

Home Is Where Our Heart Is!

The Trustees and employees at Bluestem Electric Cooperative want to see our community succeed. Why? The answer's simple: Because we live here, too.

Local people working for local good: that's the essence of one Cooperative Principle, Concern for Community.

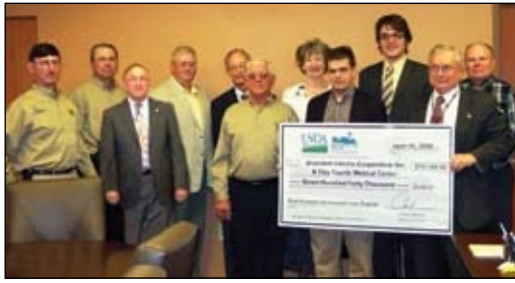
First and foremost, we strengthen our community by doing what we do best: provide electricity, reliably and at a reasonable cost. We are a dynamic part of our community. As the area grows, so does our distribution system. Strengthening our local economy makes sound business sense.

At Bluestem Electric, we pursue policies and projects that are good for the community because what's good for our community is likewise good for the cooperative.

We have strong roots in this community. Bluestem Electric has been in business for nearly 70 years. Part of the benefit of this stability is the assurance that we are not going anywhere. Our business began here, and we will not pull up stakes to pursue greener pastures elsewhere.

We pay our employees fair wages and in doing so, help to strengthen the local economy. By providing good-paying jobs, we keep our communities healthy and strong. Good jobs provide for employees and their families, so they don't have to move away to make a decent living. The more people we have here paying taxes and contributing to the community, the more vibrant it will be.

The benefits to the community are financial in nature for businesses. We also open doors for our



Bluestem supports our local community by funding projects, like Clay County Medical Center in June 2008 (above), through our USDA Rural Development Zero-Interest Loan program.

young people through our scholarship programs.

We teach and help keep children safe through our electrical safety program in our schools and civic groups. We help our members save money and reduce their environmental footprint by performing energy audits of their homes and businesses and recommending energy-efficiency measures they can adopt.

Bluestem Electric Cooperative also strengthens the community by supporting local business and charities. We help our members and neighbors in need by sponsoring economic development programs.

Bluestem employees participate in blood and food drives and help its members that are having difficulty in paying their utility bills. Bluestem Electric is made up of people who care. Our employees go out of their way to better the communities in our service area. They coach youth sports teams, serve on school committees and participate in church activities. They are cooperative members like you, and like you they want to make their communities and hometowns stronger.

Remember that when it comes to Bluestem Electric, our local community comes first.

What's an Energy Cost Adjustment?

Have you noticed the line item on your bill that says Energy Cost Adjustment (ECA) and wondered what that was?

Within your basic rate, there is an allowance for the recovery of a base wholesale power cost. An ECA allows the rate to adjust to the actual cost of wholesale power as it moves up or down in comparison to the base cost of wholesale power.

In other words, when the kilowatt-hour (kWh) cost to the cooperative is lower than the base cost, there is a credit to the bill. When the kWh cost to the cooperative is higher than the base cost, there is an addition to the bill.

Typically, during the hot summer months (June to September), the kWh cost to the cooperative is higher so your bill is higher.

Members can help the cooperative and, in turn, themselves by curtailing usage during the peak hours of these hot days (approx. 3 to 9 p.m.).

The ECA has been a credit for eight out of every 12 months for each of the past three years. That credit has averaged \$5.26 for every 1,000 kWh used.

The ECA adder in the other four months has averaged \$6.86 for every 1,000 kilowatt hours used. Power costs are on the rise, however, and it could be that the ECA may be an additional cost in cooler months as well in the future.

Keep Outdoor Safety in Mind This Fall

Late summer and early fall often finds many of us working outdoors before the weather turns cooler, but these outdoor chores require caution, especially around electricity. Faulty extension cords are a common source of injury, as are metal ladders coming into contact with overhead power lines. The following are a few safety tips to follow when working outside.

Extension Cords & Power Tools

- Check power tools and electrical cords to make sure they are in good repair, and only use power tools outside that are designed for outdoor use.
- Extension cords should also be designed for outdoor use. They are thicker, more durable, and have features for preventing moisture damage.
- Use three-wire extension cords with three-pronged plugs.
- Check the amperage rating of the extension cord to make sure it's large enough to meet the power demand of the tool.
- Do not plug one extension cord into another. Use the proper length for the job.
- Unplug extension cords when you are finished using them. Never leave an open extension cord plugged into an outlet.

Ladders

- Use fiberglass or wooden ladders when working around overhead wires or other electrical sources. Metal ladders conduct electricity and can kill anyone who is touching the ladder if it comes into contact with electricity.
- If you must use a metal ladder, carefully check the location

of all overhead power lines to avoid contacting the wire or touching the ladder to something that touches the electrical source, such as a tree branch.

- Lower a ladder before carrying or moving it.
- Never work on a windy day, as a gust of wind could shift a ladder into an overhead power line.
- When placing a ladder on the ground, make sure the distance to the nearest overhead power line is at least twice the length of the ladder.
- Make sure to place a ladder on solid level ground to prevent sliding.

Electrical Safety During Storms

Late summer and early fall often bring tornadoes and floods to the midwest. As a result, take precautions with your home's electrical system.

Keep in mind that debris from storms can easily ignite if it comes into contact with downed power lines, especially when electrical wires are severed. Also, standing water and even appliances can become electrically charged.

General Electrical Safety

- Never touch a downed power line. Call your electric co-op to report it immediately. Avoid contact with overhead lines during cleanup and other activities. Assume all wires on the ground are electrically charged.
- Be sure all electric and gas services are turned off before entering buildings for the first time.
- If water has risen above the

electrical outlets in your home, contact a licensed electrician before turning on your main circuit breaker. Outlets and wiring that have come into contact with water could present a fire and shock hazard.

- Allow all electrical appliances and electronic equipment, once submerged, to dry thoroughly. Have them checked by a qualified repair person before turning them on.
- Look for and replace damaged extension and appliance cords, loose prongs, or plugs.

Generator Safety

- Fall is a great time to service your portable stand-by generator and be prepared for winter storms.
- Portable electric generators are often put into use for temporary power. Be sure to follow the manufacturer's directions for installation and operation.
- Use generators or other fuel-powered machines outside the home. Carbon monoxide fumes are odorless and can quickly poison you indoors.
- Take special care not to overload the generator. Use appropriately sized extension cords to carry the electric load. Make sure the cords have a grounded, three-pronged plug and are in good condition.
- Never run cords under rugs or carpets.
- Never connect generators to another power source such as power lines. The reverse flow of electricity can electrocute an unsuspecting utility worker.