

March 2016

Newsline

Out with the old, in with the new System investments improve reliability and service

Whatever the season—spring, summer, autumn or winter—it's always construction season at Lake Country Power. With the board's approval of the 2016 budget, more than \$6.8 million will be invested for various construction projects this year. Many capital improvement projects are planned and already scheduled to improve service, reliability and safety for co-op members.

If you attended one of the district member meetings in January, February or March, you learned about the improvements planned for your area. If you weren't able to attend, here's a recap.

In total, 25 miles of aged lines and poles will be replaced on the system. Another 20 miles of underground cable will be replaced. Due to county road projects, 2.5 miles of line will be moved. Another 11 miles of system improvements will be done to address current load, outages and low voltage concerns. One underground substation will be built near Big Sandy Lake.

The overhead lines being replaced date back to the 1940s and 1950s when thin strands of copper line did the trick. Back then, these types of lines were adequate to carry electricity to homes and cabins that used less energy than today's larger homes with sophisticated technologies. That's certainly not the case today.

"Manufacturers didn't know the importance of galvanizing coatings in the 1950's, the result is old lines that are prone to failure," said Derek Howe, director of engineering. "That's because the steel support for the wire were un-galvanized—meaning the lines weren't given a zinc coating to protect against rust. Over time, these lines corrode and weaken to the point of needing replacement."

BOARD MEETINGS

March 29—9:30 a.m. at
Mountain Iron Service Center

April 26—9:30 a.m. at
Grand Rapids Service Center

SAVE THE DATE

The annual meeting will be held Thursday, April 28 at the Merritt Elementary School in Mountain Iron. Registration/dinner at 4:45 p.m. Business meeting at 6:00 p.m.

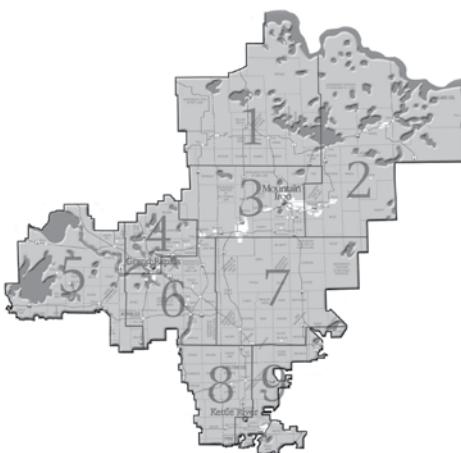
PRIMARY NUMBER

Lake Country Power's phones are answered 24-hours a day.

**Our primary phone number is
1-800-421-9959.**

EDITOR'S NOTE

Co-op events, including board meeting schedules, are posted at lakecountrypower.coop. Go to "Community Service" and click "Meetings/Events."

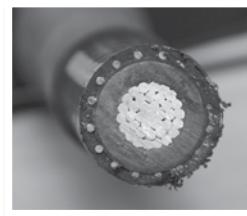


Lake Country Power's service area encompasses more than 10,000 square miles of service area in rural northern Minnesota. LCP averages 5.9 consumers per mile of line, and maintains 8,235 miles of power line.

The underground cable being replaced dates back to the 1970s and 1980s before plastic "jackets" coated underground wire. Plastic jackets keep the neutral copper wire from deteriorating.

Poor cable insulation was another problem. Impurities made their way into the insulation allowing moisture to seep into the cable and break it down, leading to underground failure and outages. The cable that LCP uses today has been in service 47 years without a single failure, a testament to improved manufacturing technologies.

Rest assured, Lake Country Power is taking a proactive approach to guarantee the equipment that serves your home, cabin or business is up to par—so your service is safe and reliable.



This is the inside of a good underground cable, which LCP installs today.

Locations of construction projects

Construction work will happen all across Lake Country Power's service area. Nearly 25 projects will be happening in the following service areas.

South LCP

- Big Sandy Lake and McGregor
- North of Cromwell
- East of Kettle River
- Grand Lake

North LCP

- Keewatin
- North and South of Ely
- Iron
- North of Babbitt
- Aurora
- Lake Vermilion (Frazer Bay)
- North of Side Lake
- Northeast of Orr
- North of Duluth
- Nashwauk and Crooked Lake

West LCP

- Boy River
- Goodland
- Pokegama Lake (Sherry's Arm)
- Cohasset (road project)
- North of Longville
- Walker (Onigum)
- North of Hill City
- North of Grand Rapids
- Blackberry



Generating value in the rural energy economy

By Robert Bruckbauer, District 5 Director

It's a common sight to see semi-trucks hauling grain near the farming community of Spiritwood, N.D.

That area became busier last summer when farmers started delivering corn to the Dakota Spirit AgEnergy ethanol biorefinery which began operations.

The area has always been rich in corn production. In fact, Stutsman County produced about 18.6 million bushels of corn in 2014.

Terry Wanzek, farmer and North Dakota senator says Dakota Spirit AgEnergy has created a market for virtually every bushel of corn produced in the county.

That benefits farmers, but also local cities, counties, the state and region.

Dakota Spirit AgEnergy takes a local commodity, corn, and adds value to it to produce the end products of ethanol, distillers grains and corn oil that are transported locally and out of state.

Dakota Spirit AgEnergy is owned by Midwest AgEnergy Group, an Upper Midwest biofuels enterprise owned by Lake Country Power's wholesale power provider, Great River Energy, and other accredited investors.

Dakota Spirit AgEnergy

The 65 million gallons of high-octane ethanol Dakota Spirit AgEnergy produces each year is blended with gasoline. The distillers grains are used for cattle feed. Corn oil is essential in the production of biodiesel.

The primary input to make those products is corn—23 million bushels per year, grown locally. This results in a strong, year-round market for local farmers.

Dakota Spirit AgEnergy is operated by 38 employees who live near the plant and operate it in an efficient manner.

These highly skilled employees work hard to efficiently produce high-quality renewable products from about 70,000 bushels of corn per day.

The ethanol biorefinery has a much larger impact beyond its plant site as the business generates about 2,000 indirect jobs through farming, transportation and other businesses that support the plant and employees.

Spiritwood Station

The ethanol biorefinery would not exist without Great River Energy's Spiritwood Station at center of it all. The 99-megawatt combined heat and power plant, which was commercialized on Nov. 1, 2014, generates

electricity for the regional market and process steam for Dakota Spirit AgEnergy and an adjacent malt plant.

Spiritwood Station is the only major power plant in eastern North Dakota, and it is operated by 30 people who primarily live within 30 miles of the site.

High tech plants

Spiritwood Station is one of the cleanest coal-based plants in the world. In fact, it is compliant with the requirements of EPA's Clean Power Plan to reduce carbon dioxide emissions.

Visitors to the plant are impressed with how the plant operates and how it generates electricity and steam in a highly efficient manner.

Dakota Spirit AgEnergy also has low carbon intensity, because the biorefinery uses steam from Spiritwood Station instead of owning and operating its own boiler. Ethanol produced in Spiritwood is shipped to markets in the United States and internationally that require lower carbon fuels.

Robert Bruckbauer was elected by members in Lake Country Power District 5. He can be reached at 218-566-2436 or bobbruckbauer@northlc.com

12-month review of solar output

Lake Country Power's 20 KW solar array in Grand Rapids is highly visible in front of our service center along U.S. Highway 2. It has generated a buzz among co-op members and non-members alike.

The panels generated 20,300 kilowatt-hours of solar electricity for LCP between January 2015 and January 2016. If a co-op member were operating the same system, it would have offset \$2,225 on your annual electric bill.

That number sounds impressive, but keep in mind, Great River Energy's investment in the solar array was \$150,000 – far higher than most residential-sized systems. The member payback would be 62 years for a system of equal size. The capacity factor was 12 percent – much lower than predicted.



To view the energy output, visit lakelcountrypower.coop. If you're contemplating a solar investment, please visit with Lake Country Power's member service department at 800-421-9959, press #6.

Save the date!

Event: Lake Country Power Annual Meeting

When: Thursday, April 28, 2016

Where: Merritt Elementary School, 5529 Emerald Ave., Mountain Iron, MN

Time: Registration/meal entertainment at 4:45 p.m. Meeting at 6:00 p.m.

You do not need to R.S.V.P. for the annual meeting. Just mark your calendar and plan to attend.

Avoid a bad decision when your water heater breaks

Save money with a smarter replacement—your co-op can help

If you want to save money on your energy bills and reduce greenhouse gas and other emissions, a good step would be to have a replacement plan for your water heater when it fails.

And a key part of that plan is to get advice from Lake Country Power's member service department.

This helpful tip comes from Keith Dennis, an expert who's just published research showing that the increased use of electric appliances would improve energy efficiency at home and for the nation.

Keith Dennis is the senior principal of end-use solutions and standards at the National Rural Electric Cooperative Association (NRECA). His article, published in the November issue of *The Electricity Journal*, shows that for decades we've been using assumptions and measurements for energy efficiency that are no longer accurate. It explains that electric water heaters are a much better choice

than natural gas – both for environmental impact, as well as home energy savings. And that's important. Water heating accounts for approximately 15 percent of your home's energy use.

The problem is, replacing a water heater is often a panic decision—water heaters seem to break at the worst time, and you're more likely to be thinking about the guests coming to visit the next day than the best energy efficient decision.

"Most people replace their water heater in an emergency situation," said Angie Hantula, LCP member service representative. "Members should call us when, or even before that happens. We're here to help bring value to your home and stretch your budget."

Lake Country Power's rebate program goes up to \$600 for its water heating programs. This makes it attractive to buy the most effective water heater and place it on a program.



Call the member service department at 800-421-9959, press #6.

New rates take effect March 1

Increasing costs and flat energy sales

As announced in the January Newsline, rates will change March 1. The energy members use in March will be reflected with the new rates on April's billing statements.

The average residential consumer will have a rate change of six percent. In other words, the average co-op member using 750 kilowatt-hours per month will see on average, a \$10 per month change on electric bills.

Lake Country Power's rates are based by season. Residential energy rates will rise 1.38 cents per kilowatt-hour, per season. The service availability charge will remain the same at \$42/month.

Why the change

It's been three-and-a-half years since rates were adjusted for costs Lake Country Power controls directly. The rate change is related to a few factors, including:

- \$2 million for additional investments needed for clearing trees along powerline corridors
- \$1.8 million for additional interest and depreciation expenses (utility lines and equipment)
- \$1 million for rising wholesale power costs

- No growth on Lake Country Power's system since 2007

"The combination of increasing costs and lower sales is tough on any business, including not-for-profit electric cooperatives," said Greg Randa, general manager.

"Most of our fixed costs are recovered through the monthly service availability charge," added Mark Bakk, finance director. "This works well because the current rate structure offsets an over-reliance on energy sales. In time however, continued rising costs and flat energy sales catch up with you."

Energy Wise programs such as dual fuel and off peak will also see an increase.

Residential Energy Rates

Summer: 13.36¢/kWh (June – Aug.)

Winter: 12.36¢/kWh (Dec. – Feb.)

Shoulder: 11.36¢/kWh (March – May and Sept. – Nov.)

Future rate pressures

Uncertainties are facing the electric industry. Energy experts and analysts are studying how the EPA's Clean Power Plan will impact power costs and supply. Great River Energy (GRE), LCP's wholesale power supplier, is making investments and plans to move away from coal-based electricity to natural gas plants and renewable energy sources.

There will be a cost to decommission existing coal plants that are not fully paid off yet. There will also be a cost to build new power generation sources to replace the existing supply.

Since 2000, GRE has invested \$300 million to maintain and improve power plant operations and emissions. It's likely the coal plants could operate another 50 years, but GRE's hands are tied with the Clean Power Plan. The plan calls for a 27 percent cut nationally in greenhouse gas emissions by 2022, and 32 percent by 2030.

EPA's regulations are designed to shift the energy economy away from coal, which provides 40 percent of America's electricity today. Coal provides nearly 60 percent of the electricity Lake Country Power purchases from GRE.

"Our national cooperative association, NRECA, estimates that electric co-ops will need to increase rates 33 percent by 2020 due to the Clean Power Plan," said Bakk. "And a 46 percent increase in rates by 2025. We can expect that the cost to change America's energy plan will trickle down to end-consumers, especially in rural regions like ours."

Knowing what to do saved their lives

When teenagers Lee Whittaker and Ashley Taylor saw a power line safety demonstration at their high school, they never dreamed what they had learned that day would be put to test. Only days later, Whittaker and Taylor, along with two classmates, were in a car that crashed into a utility pole, bringing live power lines to the ground.

"When people are involved in a car accident, electricity is usually the last thing on their minds," says Bill Bussey, LCP's safety director. "We can forget that by exiting the vehicle, we're risking exposure to thousands of volts of electricity from downed power lines."

If you are in an accident with a utility pole, your vehicle may be charged with electricity. If this is the case and you step out of the car, you will become the electricity's path to the ground and could be electrocuted. Loose wires and other equipment may be in contact with your car or near it—creating a risk for electrocution if you leave the vehicle.

While downed lines can sometimes reveal they are live by arcing and sparking with electricity, this is not always the case. Power lines do not always show signs that they are live, but they are just as lethal.



Ashley Taylor and Lee Whittaker, along with two classmates, survived a vehicle collision with an electric utility pole. The students had recently seen a safety demonstration on what to do in this type of situation, which ultimately saved their lives.

What to do

After an accident, stay in the car, and tell others to do the same. If you come upon an accident involving power lines, do not approach the accident scene. If you see someone approaching, warn them to stay away. Call 911 to notify emergency personnel and utility services. Do not leave your vehicle until a utility professional has told you it is safe to do so.

The safest place to be is almost always inside the car. The only circumstance when you should exit the vehicle is if it is on fire—and those instances are rare.

If you must exit the vehicle, jump clear of it with your feet together and without touching the vehicle and ground at the same time.

Continue to "bunny hop" with your feet together to safety.

Doing this will ensure that you are at only one point of contact and will not have different strengths of electric current running from one foot to another, which can be deadly.

Whittaker, Taylor and their friends survived their accident because they had learned what to do. While they waited more than 30 minutes for line crews to arrive and deactivate the power line, Whittaker and Taylor made sure nobody left the car and warned those who came upon the accident to stay far away.

"Knowledge was crucial in keeping everyone involved in the accident safe," Bussey said. "We want to make sure that everyone knows what to do if they're in accidents with power poles."

For more information and to see Lee and Ashley's story, visit SafeElectricity.org.

9 District member meetings to connect and inform

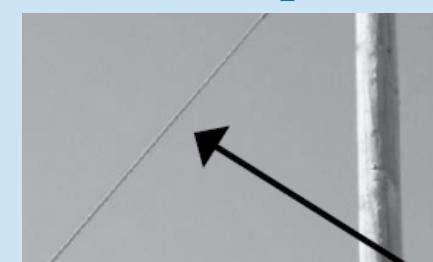
"These district meetings are always informative," said Ed Thue, LCP member near Walker. "One of the big deals to understand is how government regulations are going to impact our rates. Legislative decisions can be detrimental for rural folks and co-ops. It's always good to know which regulations are affecting electric rates."



It all adds up: Investing in a reliable electric system How much does guy wire* cost per foot?

- A. 59 cents per foot
- B. 10 cents per foot
- C. 95 cents per foot
- D. 29 cents per foot

*A tensioned cable designed to add stability to utility poles. LCP has an average of 40 feet of guy wire per assembly, and the co-op has more than 4 million feet of guy wire on its system. This results in nearly \$1.2 million of guy wire.



Answer: D

I want a free 2016 calendar!

Request Lake Country Power's 2016 co-op calendar using this clip-out request form. The photography in the calendar is beautiful and was submitted by LCP members. It'll make a lovely addition to your wall or desk. Request up to 2 calendars, if you wish. Complete the fields below and we'll mail it at no charge.



Name: _____

Address: _____

City: _____

State: _____

Zip: _____

Number of calendars requested: _____

Mail to:
Lake Country Power
4065 Hwy 73 South, Kettle River, MN 55757

It pays to use
your Co-op
Connections® Card



Shop at Benders Shoes in Grand Rapids, Hibbing or Duluth with your Co-op Connections Card and you'll receive a discount.

- **10% off** SmartWool brand socks, regular price
- **20% off** regular priced jewelry

Visit lakecountrypower.coop (Community Service/Co-op Connections) for a full list of discounts.

Military personnel disconnection law

The 2007 Minnesota Legislature passed a law called the Military Personnel Disconnection Law. The law recognizes the value of military service and limits utility disconnections if a member of the household has been issued orders such as active duty, deployment, or for a permanent change in duty station during that period. To be eligible for disconnection protection, the member must contact the cooperative to request a "Military Personnel Disconnect Protection Form", meet income eligibility guidelines and set up a mutually acceptable payment schedule.

Before disconnecting service to military personnel in situations as listed above, the cooperative must provide the following information: notice of proposed disconnection; statement explaining customers' rights and responsibilities; list of energy assistance providers; disconnect protection form and a statement explaining the payment plan to secure continued service.

Please contact Lake Country Power, if you have any questions about the "Military Personnel Disconnection Law" or energy assistance programs.

Recipe Corner

Cheesy Potatoes

Kristin Zorn, Canyon, MN

2 lbs. frozen hashbrowns
1/2 c melted butter
1 can cream of cheddar soup
1 pint sour cream
1/2 c. chopped onion
2 c. grated cheddar cheese
1 tsp. salt
1/4 tsp pepper
Crispy fried onions for top



Defrost hashbrowns

Combine next 7 ingredients and mix with hashbrowns

Place in 3-quart casserole dish

Sprinkle with crispy onions

Cover and bake at 350 for 40 minutes

Submit your favorite recipe to Lake Country Power, Attn. Editor, 2810 Elida Drive, Grand Rapids, MN 55744, or e-mail tzau@lakecountrypower.com. If your entry is drawn and printed in Newsline, you'll receive a \$5 credit on your electric bill. Entries must include name, address and phone number on account. Recipes will be published as space allows.

December 15, 2015 • Regular Monthly Meeting

The following reports were given:

President Long reported that he and General Manager Randa discussed and agreed that Randa's review be completed in January. Long also reported about several conversations he's had with members. He's also been reviewing and has had conversation with legal counsel about language in Policy 107.

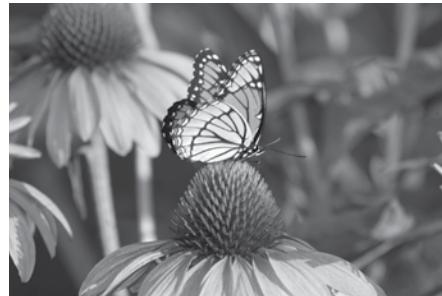
General Manager Randa provided a written report to the board and gave verbal updates and information on various matters.

The following actions were taken:

Approved the 2016 capital and operating budgets as presented at the December 14, 2015 committee of the whole meeting.

Approved a resolution regarding the electric service territory agreement with the City of Nashwauk.

Editor's Note: These board minutes have been condensed. A full copy of the board minutes can be read at www.lakecountrypower.coop in the "Member's Area." You'll need to sign up for access if you haven't already. Or call 800-421-9959 for a printed copy.



This picture earned a spot in the co-op calendar for March 2016. It was taken by Mary Sorenson of Cloquet, MN. She framed this beautiful picture of a Monarch butterfly enjoying a purple coneflower.



ENERGY EFFICIENCY Tip of the Month

Consider purchasing rechargeable batteries – and an ENERGY STAR charger for them – which are more cost effective than disposable batteries. In the U.S. alone, more energy-efficient battery chargers could save families more than \$170 million annually.

Source: energy.gov

Comparative Operating Statement

Year-To-Date — December 2015

	2015	2014
Electric Operating Revenue	\$83,571,838	\$88,518,436
Cost of Purchased Power	45,001,004	48,968,952
Distribution Expense - Operations and Maintenance	13,209,576	12,915,955
Consumer Accounts Expense & Informational	3,901,300	3,851,469
Administrative and General Expense	5,634,667	5,465,152
Depreciation, Interest Expense and Other Deductions	15,235,664	14,946,056
TOTAL ELECTRIC OPERATING EXPENSES	82,982,211	86,147,584
Net Electric Operating Margins	589,626	2,370,852
Non-Operating Margins	1,511,706	4,262,740
TOTAL MARGINS BEFORE SUBSIDIARIES	2,101,333	6,633,593
Net Income (Loss) from Subsidiaries*	113,833	524,955
TOTAL MARGINS	\$2,215,166	\$7,158,548
TOTAL kWh SOLD (YEAR-TO-DATE)	634,971,334	702,601,171

Editor's Note: These financials are condensed. A complete set of financials can be viewed at www.lakecountrypower.coop in the "Member's Area." You'll need to sign up for access if you haven't already. Or call 800-421-9959 for a copy.

*Holding Company financials through December, unavailable at press time. Total is through September 2015.

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Directors are members of the cooperative and are elected to act in the best interests of the co-op with the same care than an ordinarily prudent person in a like position would exercise under similar circumstances.

Directors set policy, approve strategy and are charged with fiduciary responsibility of the cooperative. Directors do not oversee day-to-day LCP operations. Administration of maintenance, electric service and operations are the responsibility of employees and staff.

Members with questions or concerns about service, billing, outages or other service-related matters should call 1-800-421-9959.

Newsline

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