



CAPITAL ELECTRIC COMMENTS

Capital Electric Cooperative • Bismarck, N.D.
(701) 223-1513 or (888) 223-1513
www.capitalelec.com

LINCOLN: steady growth, reliable power

Lincoln is one of the few cities in North Dakota that is served by an electric cooperative. In the February center pages, read about the city's history and growth, and why Capital Electric invested \$1 million in the area.



FEBRUARY 2011 IN THIS ISSUE

- Capital welcomes new Lincoln members
- The value of electric heat
- Baldwin turbines become operational
- Co-op offers student scholarship
- Hagen receives lineworker certificate
- Meeting minutes ... and more!

Capital welcomes Lincoln's new members, growth

Story and photos by Carmen Devney

Electric cooperatives don't often serve cities or towns; they were created to provide electric service to rural areas that were often sparsely populated. Other utilities would not extend service to remote areas because they could not make a profit.

Back in the 1970s, one of the many rural areas in the Capital Electric Cooperative service area was Fort Lincoln estates southeast of Bismarck. Known for its smaller, more affordable lots, the subdivision grew quickly and eventually became incorporated as the city of Lincoln. Even though the cities of Bismarck and Lincoln are now only five miles apart, Capital still provides electric service to this area.

Terry Mertz, staking engineer for Capital, says Lincoln

has continued to expand.

"Last year, it was probably our fastest-growing area. It steadily grew throughout the year, and it is still growing," he estimates.

Judy Ruzicka, work order clerk for Capital, shares the city's growth over the past three years.

"Including Lincoln, Wheatland Hills (a subdivision north of Lincoln) and Copper Ridge (a subdivision south of Lincoln), in 2010 there were 76 new residential services. In 2009 there were 69 and in 2008 there were 69," she reveals.

New businesses continue to lure more residents. Two of those businesses include the Angus Grill & Lounge and Cenex.

Over the past few years, Capital has monitored the growth in and around the city of Lincoln, and planned to build a new substation to accommodate the area's expansion. A substation is a fenced facility where electricity is "stepped down" or reduced to a voltage consumers can use in their homes or places of business.

Energized in December

2009, the Apple Creek Substation helped lighten the load on two of the co-op's adjacent substations: the Lincoln Substation north of the University of Mary, and the East Bismarck Substation located behind the Western Area Power Administration on Centennial Road. By decreasing the load on two substations and adding more capacity with the new substation, Capital's power system is strengthened.

Capital Electric welcomes the new residents and business consumers of Lincoln. To learn more about what it means to be a "member" of a co-op, rather than to be a consumer of another utility, visit Capital's Web site at www.capitalelec.com and click on "About Us."



Energized in December 2009, the Apple Creek Substation helps Capital provide affordable and reliable electric service to Lincoln-area members. The co-op invested \$1 million in this substation.



New businesses continue to lure residents to Lincoln, like the Angus Grill & Lounge.



Cenex is another relatively new business in Lincoln.

What does it mean to be a co-op member?

Neighbor helping neighbor. Cooperative helping community. Applying the basic cooperative principles, North Dakotans have worked together to help themselves, bringing the brilliance of light to homes, farms and businesses across the state.

Electric cooperative members should be proud of the success of the cooperative business model and the spirit of cooperation that these organizations promote.

What makes cooperatives special? Cooperatives are owned and controlled by those they serve. Each person has a voice and a vote in the co-op's activities. The cooperative way of doing business is a true example of grass-roots involvement and democracy in action. The power of the people is exemplified in all types of cooperatives.

Reduce your propane pains with **ELECTRIC HEAT**

When Jay Christensen built his home south of Bismarck six years ago, the cost of propane seemed reasonable. Of course, he expected the cost of propane to increase — just as inflation and demand increases the cost of gas, groceries and other necessities. But over time those large, biannual propane bills became more and more expensive, and improvements in electric heat products and their energy efficiency convinced him it was time to contact his electric cooperative and learn about cost-effective heating alternatives.

Jay called the member services department at Capital Electric and spoke with Josh Schaffner, member services assistant. First, Josh informed him that co-op consumers who heat their homes or places of business with propane or natural gas as their primary source of heating can add an electric heat product and qualify for the co-op's dual-fuel or straight electric heat programs. Next, Josh compared the current costs of electric heat and propane, and advised Jay that \$200 of heat on propane would cost \$125 on Capital's off-peak electric rate. That's a 38 percent savings!

Electric heat products

While there are a number of electric heat products to choose from, one of the most simple and efficient may be a plenum insert. If you have a propane tank and an adequate circuit panel, you can add a plenum heater to your furnace.

The costs associated with installing a plenum heater include buying the equipment and hiring an electrician. Co-op members can purchase the equipment from Capital Electric for \$800 to \$1,000, depending on the size of the unit. The wiring may cost anywhere from \$600 to \$1,500, depending on the panel size and accessibility of the existing equipment. Based on current prices, homeowners can expect to see a full return on their plenum investment within four years.



PHOTO BY J.C. BALCOM

Capital member Jay Christensen, avid bird watcher and wild-game hunter, purchased an air-source heat pump and plenum insert. The electric heat products qualify for Capital's off-peak and dual-fuel electric rates.

Electric heat programs

Once the plenum insert is operational, members will qualify for one of Capital's electric heat programs.

The first program is dual-fuel, which requires our members to have a backup heat system during load control periods. Capital's dual-fuel rate is 3.7 cents per kilowatt-hour (KWH). The chart on the next page compares the cost of electric heat and propane, showing members would pay 3.7 cents per KWH for electric heat on the dual-fuel program versus 90 cents per gallon of propane, which costs approximately \$1.70 per gallon.

The second program is straight electric heat, which does not require a backup system. Capital's straight electric heat rate is 4.9 cents per KWH. That is approximately equal to



paying \$1.20 per gallon for propane. While not as cost-effective as the dual-fuel rate, this straight rate can still save money in comparison to current propane prices.

Efficient technology, affordable energy bills

After evaluating the costs for labor and equipment and estimating a return on investment, Jay Christensen and his wife, Dorothy, invested in electric heat. They purchased an air-source heat pump in combination with a plenum heater, and had the equipment installed in September. As indicated in the February cover story for *North Dakota LIVING*, so far they are pleased with the efficient technology and affordable heating bills.

While prices for propane and natural gas have fluctuated significantly over the past few years, electric heat rates have remained stable in the Capital service area. To learn more about the plenum insert or other electric heat products, visit Capital's Web site at

www.capitalelec.com

and click on "Energy Efficiency." Or, call Josh or Doug in the member services department at (701) 223-1513.



ACTUAL COST COMPARISON:

\$200 of heat on propane would cost about \$125 on off-peak electric.

If you're a Capital Electric member and want to save money by utilizing the off-peak co-op rate, call Josh and Doug in the member services department today.

(701) 223-1513 or (888) 223-1513

WHEN IS ELECTRIC HEAT COMPETITIVE?

Off-Peak Rate (cents/KWH)	LP, Std (\$/Gal)	LP, 90+ (\$/Gal)	Fuel Oil (\$/Gal)	Nat. Gas, 90+ (\$/Therm)
3.5	0.56	0.85	0.81	0.92
3.7	0.61	0.91	0.90	0.98
4.0	0.64	0.97	0.91	1.05
4.5	0.72	1.09	1.11	1.19
4.9	0.81	1.20	1.19	1.29
6.0	0.97	1.40	1.47	1.49



Michael McGrath earned last year's scholarship. He is the son of Capital members Michael and Diane Paul, Bismarck.

Attention, high school seniors!

Capital Electric offers student scholarship

Last year, Michael McGrath applied for and received the annual \$1,000 scholarship from Capital Electric Cooperative, in partnership with Basin Electric Power Cooperative. In his thank-you note to the Capital board of directors, McGrath noted he started wearing glasses at age 5 and detailed how he planned to use the scholarship.

"I'm very sure of my career choice," he described. "I want to improve the lives of others who have vision difficulties; especially children."

Seniors, if your parents are members of Capital Electric, you are eligible to apply for this scholarship for the 2011-2012 school year and follow your career dreams, like Michael.

To qualify for the \$1,000 scholarship, you must be a student who is enrolled or planning to enroll in a full-time undergraduate or graduate course of study at an accredited two-year or four-year college, university or vocational/technical school.

Our co-op will assemble a panel of impartial judges to review all applications. The judges will select the winning application based on academic performance, potential to succeed, leadership and participation in school and community activities, honors, a statement of education and career goals, work experience and an outside referral.

The scholarship will be awarded without regard to other awards, loans or financial assistance the applicant may have obtained.

Application forms may be downloaded at www.capitalelec.com or picked up at co-op headquarters at 4111 State St. N. in Bismarck. Applications need to be completed and returned to Capital on or before **Monday, Feb. 14, 2011.**



Matt Hagen (center), lineworker for Capital, accepted his journeyman lineworker certificate at the Apprenticeship Training and Safety (AT&S) Conference in January from Christy Roemmich, AT&S safety coordinator for NDAREC, and Wally Kalmbach, director of safety for NDAREC.

Apprenticeship program molds tomorrow's leaders

by Wally Kalmbach, director of safety, NDAREC

There are currently about 275 linemen employed at North Dakota's 16 distribution cooperatives. Of those, more than 40 percent are over the age of 50. The supervisory positions on line crews are often held by the most experienced and skilled linemen — and many of these veterans are retiring, or preparing to retire.

Right now, co-ops report that the tough national economy has provided a sufficient number of job applicants for position openings. But when the economy improves, the number of applicants available, and especially those willing to work in the smaller communities of North Dakota, will undoubtedly decline. Many cooperatives are taking a serious look at succession plans for their key personnel. This involves bringing new workers into the utility and providing training for those who will assume leadership positions in the future.

Where will the next generation of linemen come from? Nearly all will attain their journeyman lineworker status via an apprenticeship program which involves some formal school training, such as that offered by the Bismarck State

College lineworker program. After graduation, a young person will seek employment with a cooperative or a construction contractor that offers an apprenticeship program. Apprenticeship programs require that the employer be affiliated with a plan registered with the U.S. Department of Labor – Office of Apprenticeship. The plan requires the young tradesman to spend a certain amount of time, normally four years, under the mentorship of journeymen. It also requires additional academic work called related instruction, which is also a four-year regimen. Once an apprentice successfully completes these two program elements, he or she is awarded the trade certification of Journeyman Lineworker.

This past year, out of 28 apprentices enrolled in the lineworker apprenticeship program administered by the North Dakota Association of Rural Electric Cooperatives (NDAREC), eight graduated as journeyman lineworkers and one graduated as a journeyman meter technician. Matt Hagen, lineman for Capital Electric, was one of those graduates.

The Capital board members, managers and staff congratulate Matt on his achievement.

Baldwin Wind Project becomes operational

Courtesy of Basin Electric

The newest partnership between Basin Electric Power Cooperative and NextEra Energy Resources is now generating renewable power in the Capital Electric Cooperative service area. The Baldwin Wind Project, about 12 miles north of Bismarck, began commercial operation on Dec. 21. It is owned and operated by NextEra Energy Resources of Juno Beach, Fla. Basin, one of Capital's power suppliers, is

purchasing the electricity produced and incorporating it with its other generating resources. Capital will provide electricity to the 64, 1.6-megawatt turbines.

Construction on the project began in August. The Baldwin turbines are adjacent to two other NextEra Energy Resources projects, the Wilton Wind Project and Wilton Wind 2, each with a 49.5-megawatt capacity. Capital also provides electricity to these turbines, and Basin purchases the output.



Construction on the Baldwin Wind Project started in August and was completed in December. Some of the Wilton wind turbines can be seen in the background.

PHOTO BY STEVE CRANE

Those strange outlets protect you!

Have you ever wondered why you have different outlets in the bathroom? Those outlets are ground-fault circuit interrupters (GFCIs).

Mixing water and electricity can be a shocking experience, but electrocution can be prevented with the use of GFCI outlets, according to the U.S. Consumer Product Safety Commission.

GFCIs prevent shock or electrocution by monitoring the current flowing through a circuit. If an appliance is damaged, current can leak out of it. Unfortunately, that current can travel through a person holding the appliance in a wet or damp area. The GFCI-equipped receptacle senses the current imbalance and immediately shuts off the power at the receptacle.

So effective are GFCIs in preventing shock that the National Electrical Code has required them in new bathrooms since the mid-1970s. Since then, the list has grown to include kitchens, crawlspaces, unfinished basements, garages or any place indoors within six feet of water. Outdoors, GFCIs are specified near pools and hot tubs.

But many homes built before 1975 are not equipped with GFCIs. If your home is one of them, call a licensed electrical contractor to install GFCI receptacles wherever they may be needed.

These GFCI outlets should be installed anywhere an appliance might come in contact accidentally with water, typically in the bathroom, kitchen, laundry room or garage.



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CAPITAL ELECTRIC COOPERATIVE *board minutes report*

Dec. 16, 2010

The regular meeting of the board of directors of Capital Electric Cooperative, Inc., was held Dec. 16 at co-op headquarters in Bismarck.

Financial Review (November 2010): Prior to the board meeting, Directors Mund and Haugen-Hoffart reviewed the November 2010 check register and expenditures. They reported all checks were in order. It was moved, seconded and carried to approve November expenditures in the amount of \$2,052,028.95.

Business department report: The manager reviewed the November financial and statistical report with the board. Total kilowatt-hour (KWH) sales reported for November 2010 were above budget by 14.7 percent. The actual monthly electric revenue is up 18 percent over budget. The budgeted revenue does not include the rate increase that occurred in October 2010.

The current margin for November is \$139,196. In November, 48 new services were billed, bringing active services to 15,650 versus 15,137 at this time last year.

Following discussion, it was moved, seconded and carried to approve Rate Schedule "BP," effective Jan. 1, 2011. An analysis was done on the effects of capital credits received by Capital Electric from other cooperatives. Basin has recently informed us that they will not be retiring capital credits for a number of years (in order to improve their equity ratio, etc.). This is significant to Capital in terms of cash flow — assuming we will continue retiring capital credits at the same pace we have been, we will have a negative net-related cash flow related to capital credits of \$765,892 over the next five years.

Capital has received the medical and vision rates from BlueCross BlueShield for 2011.

The manager reviewed the comparison of actual-to-budgeted expenses for the month of November and for the year-to-date through November 2010. Accounts receivable balances as of Dec. 15, 2010, were reviewed.

Capital credits: Following review of the financial condition of the cooperative and recommendation by management, it was moved, seconded and carried to authorize payment of capital credits to the following deceased members' estates:

Name	Amount
William Zenker	\$337.07

Jeffrey Dean Schaller	\$107.25
TOTAL	\$444.32

Engineering and operations report: The manager reviewed the written report from the engineering and operations department. This month 52 work orders were completed, adding 45 new consumers to the system. Fisher Contracting continues to trench in new services.

The new 10-MVA transformer is scheduled to ship this week. It will take three days to get here. Three new 438-amp voltage regulators, which will support the new 10-MVA transformer, were installed at the Apple Creek Substation. The two miles of underground were completed up on 110th Avenue Northeast. This should be the last project from the Good Friday ice storm. Two RTUs were ordered for the Northwest Delivery and East Bismarck Delivery Substations.

Safety report: There were no lost-time accidents this month.

The annual Disaster Recovery Tabletop for Rural Utilities Service (RUS) was completed on Dec. 9, 2010. The subject this year was severe winter storm review of the Good Friday 2010 storm and potential improvements.

We also received the ground test equipment from the North Dakota Association of Rural Electric Cooperatives (NDAREC) so we are in the process of testing all of our personal protective grounds and hot sticks.

Member services department: Late November brought the conclusion of the transmission construction for the year as the transmission loop for the Apple Creek Substation was completed.

Total sales for 2010 have increased dramatically from 2009; the heat pump market remained strong throughout the year.

Presently, there are 11 cooperatives and five contractors in the inventory group sharing inventory costs. The "Electric Heat Joint Inventory Program" will continue in 2011.

Capital continued to make a strong commitment in 2010 to increase KWH sales in all electric heat areas.

Communications and public relations department: The manager reviewed the written report from the communications and public relations department.

Central Power Electric Cooperative report: No Central Power meeting had been held yet this month.

The manager and Attorney Larson reviewed the current status of the con-

tract amendment and letter of understanding with Central Power. A working draft will be circulated for discussion prior to Central Power's December board meeting.

Basin Electric Power Cooperative report: Cliff Gjellstad, Central Power's delegate to Basin, was re-elected president of Basin's board of directors.

NDAREC report: There was no NDAREC meeting this month.

Mid-West Electric report: Directors Olson and Hilken reported on the Mid-West meeting. Nygren and Carlson were re-elected to Mid-West's board of directors.

Western States report: The manager suggested there would be increased pressure on rates at Western Area Power Administration, the Corps of Engineers and the Board of Reclamation due to federal budget constraints.

Sheridan County: Sheridan County will lose \$25,000 to \$50,000 in tax revenue due to changes in the way rural electrics are taxed. The manager will meet, together with NDAREC staff, to discuss concerns with the Sheridan County commissioners and local legislators.

Board meeting: The January board meeting will be held on Jan. 25, 2011, commencing at 11 a.m.

Strategic planning: A strategic planning session will be held on Feb. 18, 2011.

Adjournment: There being no further business to come before the meeting, without objection, the meeting was adjourned.

CAPITAL ELECTRIC COOPERATIVE

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