First-grade students Jacob and Peyton give tours of Lincoln Elementary School as part of a project-based learning assignment. In this month’s local pages, read why these tour guides are enthusiastic about their new school, and how innovative technology is keeping the building energy-efficient and safe.
Lincoln Elementary School
Giving learning purpose

BY CARMEN DEVNEY

From national monuments and entertainment venues to local farms and fields, I’ve taken literally hundreds of tours … but I’ve never witnessed tour guides giggling, chatting nonstop and skipping their way through the tour — until I visited Lincoln Elementary School. The new school, which is a business consumer of Capital Electric Cooperative, welcomed students for the first time in August 2013.

First-grade students Jacob and Peyton from Mrs. Ashley Mastel’s class and Madison and Ryler from Mrs. Sarah Kramer’s class welcomed me and Wes Engbrecht, director of communications and public relations for Capital Electric, the first week of February. Unable to contain their enthusiasm, the four students trotted us through bright, open, colorful hallways, showing us the music room, library, discovery center, collaboration room and classrooms. Taking obvious pride in their school, they smiled the entire time.

Prior to the construction of the school, students in Lincoln were bused to different elementary schools in Bismarck. First-grade students went to Solheim. Second-
grade students attended Murphy. Third-grade students went to Dorothy-Moses and fourth-grade students attended Will Moore. The specialists, like the reading teachers, coach and principal, floated from school to school.

Mrs. Mastel says the feedback she has received from parents, in having the first four grades of Lincoln students together under one roof, has been positive.

“They wanted a school out here for so long, and the kids are so excited,” she shares. The school will welcome fifth graders this fall.

Principal Shelly Swanson says the school was planned using a student-centered approach.

“Several collaborative spaces were built into the school so we could encourage project-based learning with collaboration among peers, and promote a sense of ‘shared learning’ as we try to make our learning very visible to all who come to our school,” she explains.

Project-based learning is not a new concept, but something the district is trying to further explore and expand. Lincoln Elementary is an “early adopter” school for the district, but all schools will be receiving the important training over the next three years.

“Technology is often a huge part of the project units that are developed by our teachers. Many of the projects involve researching a content area and communicating learning to a public audience of some sort,” Swanson describes.

“Overall it is the 21st Century learning skill of applying knowledge to a real-life problem and communicating in a way that might be similar to workplace skills. Project-based learning focuses highly on communicating, collaboration and creativity. It is going beyond just a rote learning experience, and applying the learning in some way to create a project or solve a problem,’’ she concludes.

Swanson gave examples of students performing learning-based assignments. “Our third graders are studying recycling, and will create a recycling program at our new school for paper, plastics and aluminum cans. Our first graders are studying animals and habitats, so they can present to a local zoo about a new animal that can be added and the habitat it would need to survive in North Dakota,” she shares. “We can learn about recycling and habitats without the project, but it is the project that gives the learning purpose.”

Learning seems to come naturally in the color-coded building. From the hallways surrounding the classrooms to the bathroom walls and tile, earthy colors are used to separate grade levels. Swanson says the school’s staff spent a great deal of time talking about the environment and how to make the school feel warm and inviting.

“We have talked about brain research in terms of color, and keeping our spaces de-cluttered and aesthetically pleasing. It has been a strong focus for us, so I hope people take note of how intentional the staff is about creating brain-compatible learning spaces,” she says.

With double-paned windows surrounding the building and many rooms separated by glass, the building is also warmed by natural light.

“From the lighting to the heating, the architects have really done a fine job in seeking out energy-efficient solutions,” she says.

Kurt Grensteiner, head custodian, says the school has an energy-efficient heating and cooling system with good air circulation. The lights, which automatically turn on or off as people enter and exit the room, are also extremely energy-efficient, as are the bathrooms.

“We regulate the water at every spout. Washing hands, flushing toilets, turning lights on and off; everything is automatic,” he says.

The electric doors are also timed to lock automatically, in a bold effort to keep students and faculty safe. All visitors must enter through the reception area, sign in, and wear a badge.

“Safety is our top priority. Even without all the new safety features, it is about our practice and preparation for emergencies that really keeps it real for us. We practice drills often so we are ready for anything,” Swanson says. “It’s about a mindset that anything can happen, and we need to make sure students know the building and safety precautions as well as we do as adults, so they can help us in responding appropriately and keeping everyone safe.”

Capital Electric Cooperative thanks the four energetic tour guides for the fascinating overview of Lincoln Elementary School. We are proud to have such a progressive, beautiful school in our co-op’s service area.
I f you heat your home with propane and had to fill the tank in late January, you probably experienced sticker shock. According to the U.S. Energy Information Administration website at www.eia.gov, the cost of propane in North Dakota on Jan. 27 was $4.50 a gallon. One month prior, it cost slightly more than $2.

The propane shortage — and subsequent spike in price — began late last fall. Various sources nationwide give a range of reasons for the shortage. Contributing factors include a wet harvest season that required farmers to use more propane to dry crops; the brutal winter weather; aging pipeline infrastructure; and demand exceeding supply.

Josh Schaffner, member services assistant at Capital Electric Cooperative, visited with many member-consumers in January who expressed concern about fluctuating propane prices, and asked for cost comparisons with electric heat.

According to the website http://propane101.com/propanevelectricity.htm, one gallon of propane equals 27 kilowatt hours (KWH) of electricity. This means that one gallon of propane contains the same amount of usable energy as 27 KWH.

Estimating that consumers would have purchased 800 gallons of propane at $4 per gallon in January, Schaffner says the liquefied petroleum would have cost $3,200.

“That same amount of electric heat would have cost $800 on Capital Electric’s off-peak rate,” he compares, “for a savings of 75 percent.”

A simple comparison between propane and electric resistance heat shows us that propane must be purchased at less than $1.04 per gallon, and used in a 95 percent efficient furnace, to beat the operating cost of electric heat at Capital Electric’s $0.041 kilowatt-hour off-peak rate.

Capital Electric’s off-peak rate runs from Oct. 1 through April 30.

**WHAT IS OFF-PEAK ELECTRIC HEAT?**

Off-peak electric heat utilizes the concept of dual energy. A dual-energy heating system simply uses two sources of fuel rather than one. With off-peak electric heat, electricity is the primary heat source. Capital Electric has a control system that makes the switch from one heating source to another automatically. Combining two different energy sources allows the co-op to maximize efficiency and offer members low heating rates.

**WHY CHOOSE OFF-PEAK ELECTRIC HEAT?**

With the uncertainties associated with propane, natural gas and fuel oil prices, co-op members may want to consider converting their heating system to off-peak electric heat. Since its inception, off-peak electric heat has always been a stable and affordable choice for home heating. While prices for other forms of heating continue to fluctuate, Capital Electric’s off-peak rates remain low and stable. No other heating form offers this price stability.

Converting to off-peak electric heat is an expense that should be viewed as an investment that can reduce members’ home-heating costs for years to come.

**WHAT DO I NEED FOR OFF-PEAK ELECTRIC HEAT TO WORK INSIDE MY HOME, AND HOW WILL IT SAVE ME MONEY?**

- Electricity is the primary heat source, with a non-electric system serving as the back-up.
- The back-up system will be automatically turned on during system load control.
- Qualifying members will receive a rate of $0.041 per kilowatt-hour on the heat meter beginning with October’s consumption period and ending with April’s consumption period. A $3 monthly meter charge is also charged during these seven months.
While there are a number of electric heat products to choose from, one of the most simple and easy to install may be the plenum heater. If you have a forced-air heating system and an adequate circuit panel, a plenum heater can easily be added to your furnace.

The costs associated with installing a plenum heater include buying the equipment and hiring an electrician. Capital Electric members can purchase the equipment from the co-op 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.

“Compared to the $3,200 you might have paid to fill your propane tank in January, investing in a plenum heater could easily pay for itself in only 1 year,” Schaffner describes. “If you paid $4 gallon for propane, that’s $3 more than the same amount of heat in electric. The co-op’s current off-peak heat rate is equal to $1.05.”

If you have delayed converting your home’s heating system to off-peak, now is a good time to call Capital Electric Cooperative and find out how you can start saving money — both now with stable electric heat rates, and in the future with Capital Electric’s off-peak and all-electric heat rates.

If you are unable to convert from propane to electric as your home’s primary source of heat, Schaffner offers these suggestions to better manage your utility bills:

- Minimize your kilowatt-hour usage;
- Make energy-efficiency improvements;
- Shop vendors and prices; and
- Delay purchasing until the price of propane drops.

While prices for other forms of heating continue to fluctuate, Capital Electric’s heat rates remain reasonable and stable. No other heating form offers this price stability and allows for families to budget for their utility bills.

For more information on the co-op’s electric heat products or services, call Capital Electric’s member services department at 701-223-1513 or visit the website at www.capitalelec.com and click on Energy Efficiency.

According to www.propanedeal.com:
- The average price of propane in North Dakota during the 2012-2013 winter season was $1.48
- Propane usage per household = 867 gallons
- Propane spending per household = $1,424

If you filed your propane tank at the end of January 2014:
- You may have paid more than $4 per gallon
- You may have paid $3,200 to heat your home during the 2013-2014 season

Looking to make energy-efficient improvements?
Capital Electric Cooperative offers financing

- Air conditioning loans can be financed up to $1,500 for 2 years at 6 percent interest.
- Heat pump systems can be financed up to $15,000 for 7 years at 5 percent interest
- Other heating systems can be financed up to $5,000 for 5 years at 5 percent interest

With approval from the co-op’s board of directors, members may take out a loan and make payments with their monthly electric billing statements for up to 84 months. For more information, contact Capital Electric’s member services department at 701-223-1513.
Directors represent your interests

Capital Electric Cooperative is overseen by a board of directors elected by the members and owners of our co-op. Each director represents the members on the board and each director is a co-op member.

Directors represent the members’ interests. They learn and internalize concerns, expectations and ideas, and take the information into the board room. During board meetings, directors exchange information and strategize for the co-op’s progressive growth.

Directors have a fiduciary responsibility to the cooperative. They exercise care, time and responsibility in reviewing co-op matters. Because they are also owners of the cooperative, they treat the business like their own.

Directors devote a certain amount of time to the cooperative. At a minimum, directors attend a monthly board meeting. To learn about the industry and understand critical issues, directors also read and research, and attend state and national meetings.

To help directors with their responsibilities, training is offered through the North Dakota Association of Rural Electric Cooperatives. If directors choose to pursue certification, they must take and complete five courses which cover director duties and liabilities, understanding the electric business board roles and relationships, strategic planning and financial decision-making.

Serving Capital Electric Cooperative and your community can be a rewarding experience! For more information, contact a member of the Nominating Committee (see C7) or call the co-op at 701-223-1513.

Cooperative roots

When Capital Electric Cooperative brought electric service to the family farm back in 1950, David Liuska was just a boy. After the co-op drilled holes for the poles, David accidentally fell in one. His mother pulled him out.

David, who has served on the Capital Electric board of directors for the past 31 years, jokes his cooperative roots go “from the ground up.”

David Liuska is committed to his community. Over the years, he’s been involved in the Wing horse club, fire department, theater, cemetery, American Legion, the Wing-Tuttle Color Guard, and his church. The senior member of the Capital Electric Cooperative board of directors, Liuska also represents Capital Electric on the North Dakota Association of Rural Electric Cooperatives’ board of directors. To help him better understand the utility industry, Liuska attended formal training through the National Rural Electric Cooperative Association and earned his Credentialed Cooperative Director certification and a Board Leadership Certificate.
Are you interested in serving as a director for Capital Electric?

Place YOUR name on the ballot today!

Capital Electric Cooperative’s 68th annual meeting will be held June 3 at the Ramkota Hotel in Bismarck.

This year, three seats on the co-op’s board of directors will need to be filled. Directors whose three-year terms will expire this June include Kyle Hilken and Rex Hollenbeck, both from District 2, and Rodney Eckroth from District 1.

The nine members who make up the Capital Electric board of directors set policies and make decisions which will guide the cooperative into the future. With the annual meeting just a few short months away, now is the time for members to start thinking about whether they have the time and desire to serve their electric cooperative.

In accordance with Article 4, Section 3 of the co-op bylaws, current members of Capital Electric can have their names placed on the ballot to be voted upon for the open board positions in one of three ways: accepting a nomination by the Capital Electric Nominating Committee; submitting a petition signed by at least 15 current members of the cooperative, not less than 30 days prior to the annual meeting; and having your name placed in nomination from the floor at the annual meeting prior to the board of director election.

The following members have been appointed by the board of directors to serve on the Nominating Committee:

**Brian Bitner**  
751 80th St. S.E.  
Bismarck, ND 58501  
701-224-8281

**Arliss Koski**  
24951 353rd St. N.E.  
Arena, ND 58494  
701-943-2647

**Judy Roswick**  
4315 England St.  
Bismarck, ND 58504  
701-255-3262

**Gary Hansen**  
5230 Boulder Ridge Rd.  
Bismarck, ND 58503  
701-471-3558

**Duane Lasher**  
118 3rd St. E.  
McClusky, ND 58463  
701-426-9143

**Kristi Schlosser Carlson**  
2810 Powder Ridge Dr.  
Bismarck, ND 58503  
701-251-8027

**LeAna Hug**  
13451 52nd St. N.E.  
Baldwin, ND 58521  
701-223-5152

**Ann Reich**  
4401 Lookout Trail  
Bismarck, ND 58504  
701-255-4406

**Sanford Williams**  
26900 331st Ave. N.E.  
Wing, ND 58494  
701-943-2474

If you are interested in becoming a candidate for the Capital Electric Cooperative board of directors or wish to have a member considered for nomination, please contact a member of the Nominating Committee listed above prior to April 9. Committee members will have information on the requirements a member must meet in order to serve on the co-op’s board of directors. Pursuant to the bylaws, the Nominating Committee must post a list of nominations at least 35 days prior to the annual meeting. Current board members whose terms will expire in 2014 are:

- **District 1**: Rodney Eckroth
- **District 2**: Kyle Hilken and Rex Hollenbeck

Official notice of Capital Electric’s 68th annual meeting will be mailed to members in May.
Board minute excerpts
Jan. 24, 2014

The regular meeting of the Board of Directors of Capital Electric Cooperative, Inc., was held on Friday, Jan. 24, 2014, at co-op headquarters in Bismarck.

Financial review (December 2013): Prior to the board meeting, Directors Vilhauer and Olson reviewed the December 2013 check register and expenditures. It was reported that all checks were in order. It was moved, seconded and carried to approve November expenditures in the amount of $3,234,729.09.

Business department report: The business manager reviewed the December financial and statistical report with the Board. The total kilowatt-hour (KWH) sales for December 2013 were above budget by 26.7 percent. The actual monthly electric revenue is up 18 percent from budget. Year-to-date, KWH sales reflected an increase of 9.6 percent from budgeted sales and electric revenue is over budget by 5.5 percent.

Potential adjustments include true-ups to generation and transmission (G&T) allocations and any other items we may find as we continue to run our year-end balancing. At this point, there are no known changes needed other than the G&T allocation.

The financial margin for December is $1,079,957, versus the budgeted margin of $1,385,241, below budget by $305,284. Operating margins for the month were $128,079, below budget by $14,468. The year-to-date margin is $1,736,927, under budget by $73,749.

Operating margins are over budget by $303,707. The financial margin for December is $1,736,927, under budget by $73,749. Year-to-date, KWH sales reflected an increase of 9.6 percent from budgeted sales and electric revenue is over budget by 5.5 percent.

In December, 43 new services were billed, bringing active services to 17,692 versus 16,964 at this time last year. This is a net increase of 728 accounts over the last 12 months.

The business manager reviewed the comparison of actual-to-budgeted expenses for the month of December and for the year-to-date through December 2013. Accounts receivable balances as of Jan. 23, 2014, were reviewed.

Central Power Electric Cooperative consolidation: As of Dec. 31, 2013, Capital Electric is working on separating out the asset values and associated depreciation of the assets that Capital will be transferring to Central Power once the paperwork on the transfer is finalized. Capital will depreciate Central Power’s assets at their respective transmission and substation rates and will then bill Central Power monthly for their amount of depreciation until the transfer is finalized. Similarly, Capital will bill Central Power monthly for their portion of interest expense. Work orders have been set up to track Capital maintenance and inspection work done on these assets, which will also be billed.

Rural Utilities Service (RUS) audit: Greg Gustin, the RUS auditor, was here the week of Jan. 6, 2014, to perform our biannual RUS audit. He completed the Loan Fund and Accounting review and determined that all of Capital Electric’s loan funds were properly accounted for.

Western Area Power Administration (Western) drought adder: Capital Electric’s original drought adder was booked for $1,600,000 in June 2007. Another $559,518.08 was booked in early 2008. A third amount of $60,310.20 was booked in December 2009. A couple of adjustments were made in 2007/2008 in order to handle the amortizations. The remaining balance is $1,420,652.62 as of Dec. 31, 2013.

2013 payment statistics: Total payments for 2013 were 172,555, for a total of $29,636,554.81. 51.25 percent of our payments are electronic.

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:

- Shirley J. Jorgensen $1,339.44
- William R. Nemec $233.86
- TOTAL $1,573.30

Account write-offs: It was moved, seconded and carried to approve the quarterly write-offs, attached as “Minute Exhibit A.”

Engineering and operations report: The manager reviewed the written report from the engineering and operations department. This month 38 work orders were completed, adding 41 new consumers to the system.

On Jan. 14, 2014, Kent Kensmoe, IT specialist, gave out 17 iPads to our linemen and meter reader repairmen. Kent reviewed how to use the iPads so that everyone could access the mapping software.

Capital Electric completed the annual inventory the second week of January and we are within the 1 percent rule.

VIP is working on our rural rebuild. Fisher Contracting is not working for us, but we did activate them this week to help dig an underground fault. Our crews are doing the annual line inspections, plus going over our transmission system and transferring the data to Central Power’s transmission line inspection forms. We are also changing out all of our substation padlocks to the one Central Power uses.

At 6 p.m. on Jan. 5, 2014, Capital Electric set an all-time peak at 79,436 kilowatts. Our prior all-time peak was set on Aug. 20, 2013, at 76,051 kilowatts.

Member services department:

Marathon water heaters: Capital Electric’s ability to get 85-gallon and 105-gallon Marathon water heaters is being diminished as they are again in short supply. We are getting a shipment of 105-gallon Marathon water heaters shortly.

Propane price spurs renewed interest in plenum heater: This morning in Bismarck, propane was $4.49 per gallon. Plenum heaters are in stock, and more consumers are turning to electric heat. Members enjoy the fact that they can heat electrically at an equivalent price of 90 cents per gallon of propane on our off-peak heating rate.

We are fielding several calls a day from members who are in need of a winter propane fill and are realizing that the 500-gallon fill they put in last fall is now more than $350 more.

Energy Resource Conservation loans: There are no loans for Board approval this month.

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

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

Les, Jeff, Steve K., Seth, Dale, Braden, Rick G., and Rick D. attended the 50th Apprenticeship Training and Safety conference at the Ramkota Hotel Jan. 15 to 17, 2014. The six workshops offered at the conference were all safety-related, from making a good electrical connection to grounding. Braden Martin received his lineman certificate on Jan. 16, 2014.

Basin Electric Power Cooperative: A board meeting was held Jan. 17, 2014. Every year, due to year-end close-out procedures, the financial reports for December and the year-end are not available at the time of this report. The board voted to defer $10 million of the surplus sales revenue earned during 2013, and bring it into revenue in 2014, subject to the approval of the RUS.

The North Dakota Association of Rural Electric Cooperatives: There was no meeting this month.

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

Capital Electric Cooperative
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Website: www.capitalelec.com

BOARD OF DIRECTORS:
Dwight Wrangham, Pres. ........ Bismarck
Arlene Olson, V. Pres. ......................... Wing
David Liutka, Sec-Treas. ............... Wing
Sheri Haugen-Hoffart, Asst. Sec-Treas. ........ Bismarck
Rodney Eckroth .................................. Bismarck
Kyle Hilken ........................................... Wilton
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