

KEM Country LINES

KEM Electric Cooperative, Linton, N.D.

March 2011

Manager's report...by John Knox, CEO/General Manager



John J. Knox
CEO/General Manager

Things that can cause an outage...

While responding to an outage, the line crew was patrolling power lines to find the cause of the outage, which is standard procedure. When they arrived at an oil circuit recloser (OCR), which is a safety device that helps in outages, they found something of a surprise.

The crew found a dead bird at the bottom of the pole; this is a common thing to find as the cause of an outage. However, it was odd that it was right at the OCR, not at the end of the line as it always seems to be.

However, the bizarre thing is what they found when they looked up - the claw still attached to the conductor. This picture is the actual claw and all that was left of the bird. This shows the danger of the voltage in power lines!



Brrr ... it's cold outside

As I woke up this morning, it was 20 degrees below zero with a wind chill of 48 degrees below zero. That's cold! But I know spring is fast approaching us. When I've been out and about, I hear that everyone else is waiting for spring to get here, too.

To me, safety is one of our most important jobs here at KEM Electric. You may think the most important job is making sure the power stays on, and you are partially right. Our lineworkers and our other employees always and must put safety first. If not, someone may get hurt or killed, and then you are still without power.

This last month, the employees of KEM Electric Cooperative received one of the most important awards given to a cooperative - the certificate of safety accreditation. I was very happy and proud to accept this award on behalf of our employees.

As important as safety is to us at the cooperative, safety should also be on top of your agenda. Why? It's important for peace of mind, reduction in insurance costs and other savings you can obtain. For the cooperative, it is an important savings on insurance expenses. I say this because we all know we work together to be safe and to do our jobs right and efficiently for you, our members.

As spring approaches, I caution everyone to be careful if the area floods again. With the amount of snowfall this year, the weather service is predicting it could happen again. As always, watch out for downed power

lines caused by fast-moving debris hitting and/or breaking poles. If you see something of concern, please call our office and report that concern to us immediately.

Commitment to community is a priority to KEM Electric, especially when it comes to our youth. Recently, KEM Electric, along with the Dakota Wizards sponsored a youth

basketball camp in Bismarck with several of the Wizards basketball players. After seeing the pictures and talking to a couple of the kids, it looks like a good time was had by all who attended.

Another great story this month in the center pages is a story on energy efficiency, and how one family built the savings into their new farm shop.

Energy savings can be included in an existing or new farm shop or other part of your business operation.

You can contact us at KEM Electric and find out about new technology and rebates that may be available.



This certificate was awarded to KEM Electric Cooperative recently for its safety efforts.

ALSO INSIDE

- Hazelton farm shop built for the future
- Interested in becoming a director?
- Operation Round Up tops \$54,000
- Board highlights
- And more



Hazelton farm shop built for the future

by Luann Dart

When Tom and Bev Voller were planning a new farm shop alongside their son, Eric, the future ruled. Constructing an energy-efficient building for the next generation was a top priority.

“As a father, I didn’t want to put something in place that was going to burden the next generation,” Tom says. “Hopefully, a building like this will sit here for a generation or two. We know that energy costs will be increasing and I didn’t want an expense that was going to be burdensome to me or that would be to the next generation, so we looked at all kinds of energy efficiency.”

From the heating system to the insulation, the Voller Ag farm shop near Hazelton is designed for energy efficiency.

Working in comfort

When temperatures hover below 0 degrees in the depths of winter, Tom and Eric Voller can work on tuning machinery for next spring’s planting inside a brightly lit, streamlined, warm farm shop.

The pair don’t fumble with numb fingers or stumble with

frozen feet in the heated building, kept at a comfortable 57 degrees with in-floor heating using a ground-source, or geothermal, heat pump.

Because it moves heat rather than generates heat, a geothermal system can deliver four times as much heating or cooling capacity. With a four-to-one efficiency rating, the geothermal heat pump system is the most economical in-floor heating, the Vollers discovered.

“When we started adding all the costs, we decided the payback was well within reach and with some of the rebates that are available, that made it even better,” Tom says.

The Vollers began heating their newly completed farm shop Dec. 14, and have been tracking their off-peak electric heat usage closely. So far, they’ve used slightly under 100 kilowatts a day, heating the 7,560-square-foot farm shop for just over \$4 a day, using the off-peak electric heat rate.

They have also applied for a rebate through the North Dakota Utility Rebate Program and will apply for state and federal tax incentives for installing the heat pump.

The geothermal system uses



Tom Voller, Hazelton, designed his new farm shop to be as energy efficient as possible, considering everything from facing the doors to the south and using a ground-source heat pump system to both heat and cool the building.

a horizontal loop field buried eight feet underground to draw warmth from the earth to heat the building. An antifreeze solution circulates through half-inch pipe spaced every 12 inches throughout the floor system.

"I highly recommend that floor heat," Tom says. "Being able to get the equipment in the winter and work under conditions that are suitable to work in, you have to have a building that's heated. ... It's just been a pleasure."

The 72- by 105-foot building, with 20-foot sidewalls, allows large machinery to be moved inside for maintenance year-round.

"It's just been a pleasant atmosphere to work in," Tom says. "You don't have the snow and ice freezing on the tarps anymore, so taking your trucks in and out and not having to deal with crawling up and scraping ice off the tarps is really nice."

And when the large overhead doors are opened, the heating system recovers quickly.

"We've been very pleasantly surprised when we open a door on a 10-below day, run a vehicle in or out, close the door and we don't notice the difference,"



Eric Voller, Hazelton, appreciates being able to work on equipment inside a heated farm shop.

Tom says.

This summer, the Vollers will be able to test the cooling aspects of the heat pump, also.

"The cooling aspect of geothermal is supposed to be more efficient than the heating part of it. So we're looking forward to finding the results and if we're as pleasantly surprised with that as we are with the heating, it's just going to be really well worthwhile," Tom says.

"I can't wait to crawl under an itchy barley combine and work in the cool instead of the heat," he says with a laugh.

Adding the details

The Vollers started planning their new farm shop two years ago, considering everything from siting to energy efficiency.

"Everything is a huge decision," Eric says. They started by consulting with KEM Electric Cooperative's Manager of Member Services Brian Jacob, who suggested a high-efficiency ground-source heat pump - the most efficient equipment possible which is typically recommended by KEM Electric.

"There were some things that we felt we needed to prioritize. We wanted our main door to face south. In the wintertime, we can have a 10-below day and the snow will actually start to melt on the cement on the drive out here. So, that's imperative to us," Tom explains. "We wanted close proximity to the house so we could walk from the house to the shop."

Flow of traffic in the farmyard was also important.

"That was all a consideration of

how we placed the building," Tom says.

With a diversified grain farm and a hopper bin business, Voller Ag also needed office space in the new building. That space utilizes zone heating so the room can be warmer than the shop area.

Other decisions involved were insulation and door space.

"It is a building that is designed for this part of the country," Tom says.

R-30 insulation in the walls and R-42 in the ceiling, as well as R-10 insulation under the concrete floor all help with the heating costs.

"We feel it really contributes to the efficiency of our heating system," Tom says.

Two, 20-foot-wide, 18-foot-high doors, with a removable center panel, face the front of the building.

"We did that to maximize our heating efficiency so we wouldn't have to open one big door," Tom explains. When larger machinery needs to enter or exit the building, both doors open into a 40-foot space.

All the doors include three-inch insulation. "We decided to go with a highly efficient, well-insulated, overhead door that was both speedy and kept the cold out," Tom says.

The brightly lit farm shop includes fluorescent lamps that cast few shadows.

A U-drain floor system includes a drain situated between the two semi-trucks that can pull into an east door and a floor drain near the front of the building. The sloped cement drains everything that direction, with a sediment trap so the drain pipes don't plug.

"There's so much thinking that goes into a project like this," Tom says. But the details have created a pleasant working atmosphere that will last for generations.

Farm shop facts:

Carl Pedersen, an energy educator with the North Dakota State University Extension Service, recommends the following when building a farm shop:

- Install insulation with an R-30 to R-40 value in the ceiling and R-18 value in the sidewalls. Doors should have an R-value of 10 to 12 (two inches of foam insulation).
- Install weatherstripping if doors do not fit tightly. Air infiltration is one of the largest heat wasters in many buildings.
- Any concrete exposed above ground level needs insulation.
- Keep the number and size of windows to a minimum. They increase heat loss and limit useable wall space for tools.
- Install double- or triple-glazed windows to help reduce heat loss and reduce moisture condensation.
- Good overhead lighting is a necessity in a shop. Use T-8 fluorescent lamps for economical lighting that will keep electricity use to a minimum and give good lighting to work on equipment. T-8 lamps are recommended because they will use about 25 percent less electricity for the same amount of light.
- Install large doors for bringing machinery in and out of the shop so they face away from prevailing winter winds. Prevailing winter winds are usually from the northwest. Installing the large doors facing south or east will prevent a considerable amount of heat loss when doors are opened. Bring large, cold equipment inside the shop to warm up the night before working on it.
- Use zone heating. Heat only the areas that need to be heated with directional or radiant heaters - over work benches, for example. They heat the objects but not the air directly. Separating the shop from the storage area can save a significant amount of heat. Turn off or turn down the heat when it is not needed.
- Dense shelterbelts reduce the wind velocity and the energy needed to heat the shop. Short, dense trees should be located on the edge of the shelterbelt and taller trees in the middle. Shelterbelts should be a minimum of 200 feet from the shop or other buildings to reduce the problem of snow build up.

Rebate program continues for co-op members

KEM Electric Cooperative continues to promote energy efficiency through funding made available by the American Recovery and Reinvestment Act. As part of the program, the N.D. Department of Commerce received funds to invest in energy efficiency programs. With those funds, the North Dakota Association of Rural Electric Cooperatives, on behalf of the state's electric distribution cooperatives, is offering energy rebates through the North Dakota Utility Rebate Program.

WHAT'S AVAILABLE

- Residential members can apply to their local co-op for rebates on Energy Star-rated products such as a heat pump or a central air conditioner. Rebates are also available to help with the costs of an energy audit, and attic and wall insulation. There are also funds available for renewable energy systems, such as geothermal heat pumps (5.5 tons maximum). Residential members will be able to apply for more than one category of rebate if they do not exceed the total residential rebate maximum of \$5,000. A customer can also receive two or more rebates in the same category if the customer's total rebate does not exceed the applicable limit of \$5,000 for residential rebates.

- Commercial members can apply for up to \$15,000 in rebates on energy-efficient lighting, motors, central air conditioners, building recommissioning, custom design, energy audits and geothermal heat pumps (5.5 ton maximum). A customer can receive two or more rebates in the same category if the customer's total rebate does not exceed the applicable limit of \$15,000 for commercial rebates.

HOW TO APPLY

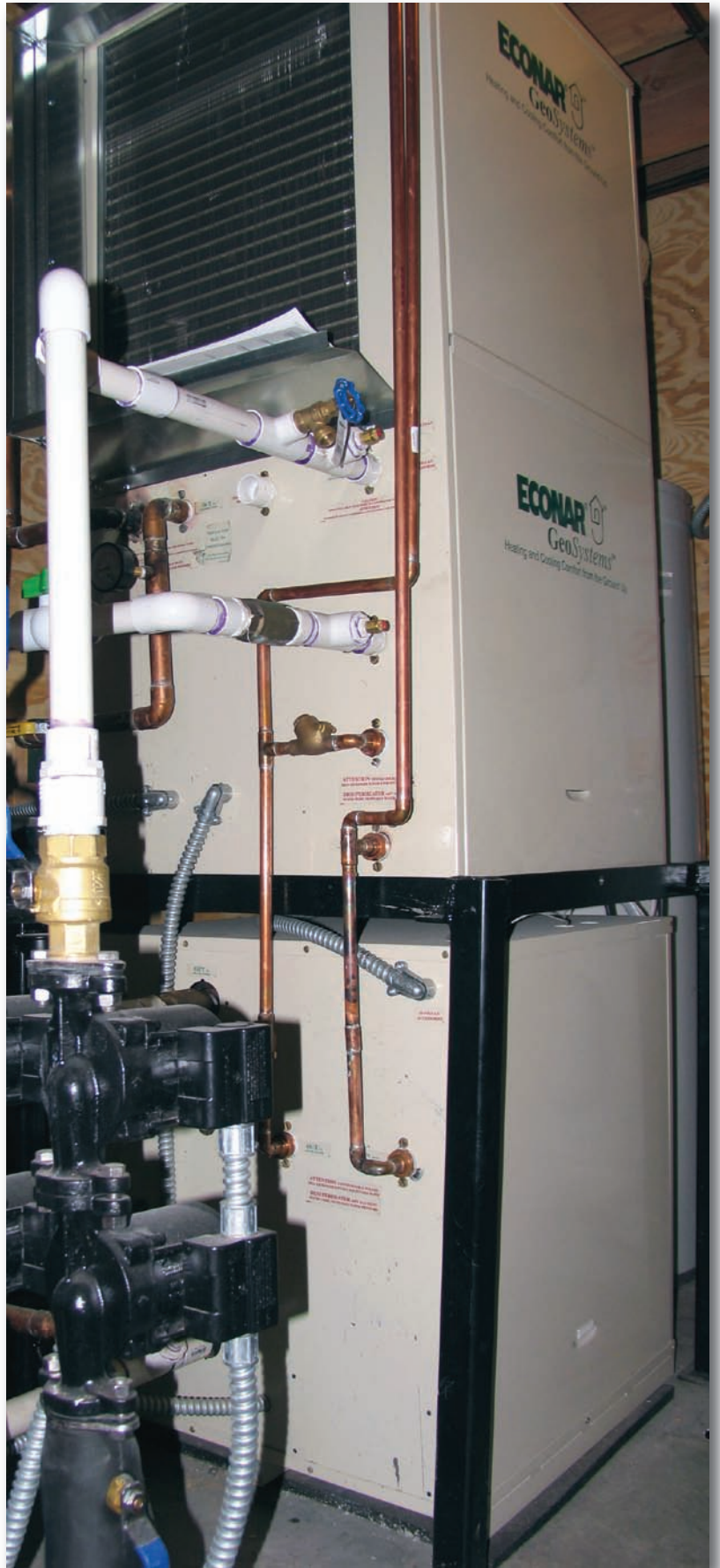
To apply for a rebate, electric cooperative members and contractors can pick up rebate application forms from their electric cooperative.

The program will end Dec. 31, 2011, or when the funds are expended.

To learn more about eligibility rules and limitations, contact KEM Electric Cooperative or visit www.ndarec.com.

To apply, electric cooperative members should:

- Talk to staff at your cooperative.
- Take a look at the rebate application form (a preview is available at www.ndarec.com).
- Learn from your cooperative whether purchases under consideration will qualify for the rebate.
- Purchase and install the equipment.
- With the cooperative's help, complete and submit the rebate application form.
- Check your mail and enjoy the money saved from your energy efficiency investment!



Tom and Bev Voller, and their son, Eric, installed a ground-source heat pump in their farm shop to provide floor heat, which was eligible for a rebate through the North Dakota Utility Rebate Program.

DEFEND YOUR HOME with a **SUMP PUMP**

A sump pump may be a homeowner's first line of defense against a waterlogged basement. Making sure your sump pump works now can prevent problems later. A North Dakota State University (NDSU) video offers tips on getting sump pumps ready to handle spring and summer water. It's available at www.ag.ndsu.edu/flood/home/sump-pump-tips.

HOW A SUMP PUMP WORKS

Drain tile, which can be clay tile or perforated plastic pipe, collects the water that builds up around the house's foundation and drains it into the sump. The sump is a hole about two feet in diameter that holds 15 to 25 gallons of water. When the water reaches a certain level, the sump pump turns on and lifts the water to ground level, then discharges it into a pipe that leads away from the house.

Sump pumps, available at hardware and home improvement stores, come in two basic models: upright, commonly called pedestal, and submersible. Either will work well with proper maintenance, according to Tom Scherer, an NDSU Extension Service agricultural engineer.

The pedestal pump's motor is on top of the pedestal and the pump is at the base, which sits on the bottom of the sump. The motor should not get

wet. A ball float turns the pump on and off. One advantage of this type of pump is that the on/off switch is visible, so you can see the ball float's action easily, Scherer says.

Submersible pumps are designed to be submerged in water and sit on the bottom of the sump. The on/off switch is attached to the pump. A sealed mercury switch generally is more reliable than a pressure switch, Scherer says.

Either type of pump should have a check valve on the water discharge pipe so water doesn't flow back into the sump when the pump shuts off. Water flowing back into the sump can cause the pump to turn on and off more frequently than necessary, which decreases the life of the pump.

Homeowners should consider having a battery-powered backup sump pump with fully charged batteries in case of a power outage, Scherer says.

HOW TO TEST A PUMP

To test whether the pump is operating properly:

- Make sure the pump is plugged in.
- Remove the sump's lid, if it has one, and use a flashlight to see whether the sump is clean and the pump outlet isn't plugged.

- Slowly pour about five gallons of water into the sump at the same speed that water normally would flow into the sump.

- Watch the on/off switch's action and listen to the pump.

- Make the pump turn on and off at least twice.

"If something doesn't work right, fix it as soon as possible," Scherer advises.

A number of factors, including the area of drainage connected to the sump and the depth of the basement, determine the right size sump pump for a house. However, a one-third horse-power pump generally works for most houses, he says.

Homeowners should not pump the water into their septic system or basement floor drain. Scherer says homeowners should discharge sump water at least 20 feet from their home in a way that the water will drain away from the house.

For more information about sump pumps, visit the NDSU Extension Service Web site at www.ag.ndsu.edu/flood.



While a sump pump won't be able to stave off floodwaters like those that inundated Linton in March 2009, it may be a homeowner's first line of defense against a waterlogged basement.



Attend YOUR annual meeting!

KEM Electric Cooperative
2011 ANNUAL MEETING
June 16, 2011
 Napoleon High School

Interested in becoming a director?

If you are interested in becoming a director for KEM Electric Cooperative, you must follow the process for filing a petition.

KEM Electric Cooperative's 2011 annual meeting will be held June 16 at Napoleon. This year, the director seats up for election are those of Victor Wald in District 4, Dean Dewald in District 5 and Carmen Essig in the District At Large.

Below is the section of the bylaw pertaining to filing a petition for a director seat:
 404. Member Petition-Form

(a) Each petition shall contain the following:

1. The name of the member nominee.
2. The director position for which the member nominee shall run.
3. The printed names, addresses and telephone numbers, date of signature, and original signatures of each member signing the petition.
4. At least 25 signatures of the members of the respective district, or members at large, as the case may be.

(b) In the case of joint members, the signature of one or more than one joint member shall constitute one joint signature.

(c) Firms, associations, corporations or body politics shall have the right to place one signature on a petition, the same as other members, by the signature of a duly appointed representative.

(d) Petitions may not be circulated or signed more than 90 days before the date when petitions must be filed pursuant to this bylaw. Any signature to a nominating petition obtained more than 90 days before that date may not be counted.

(e) All petitions must be filed at the principal offices of the cooperative not less than 45 days prior to the date of the meeting of the members, as fixed by the board of directors.

(f) After verifying that a petition complies with this bylaw, the secretary of the board of directors shall post a list of nominations for directors at the principal office of the cooperative at least 30 days before the meeting of the members.

Directors represent the members

KEM Electric Cooperative is overseen by a seven-member board of directors which is elected by you – the members and owners of the electric cooperative. During the annual meeting each year, KEM Electric Cooperative members elect fellow members to represent them on the board of directors.

If you are interested in serving on the board of directors, here are some pointers:

- Directors have a unique duty. Directors should know what members expect from their cooperative, and what members' expectations will be in the future so they can help the cooperative progressively work toward the future.
- Directors also have a fiduciary responsibility to the cooperative. They exercise care, time and responsibility in reviewing cooperative matters. Directors treat cooperative business as if the business is their own.
- Directors devote a certain amount of time to the cooperative. At a minimum, a director attends each monthly board meeting. Directors learn about the industry as a whole by reading other materials and by attending state and national meetings. An understanding of the issues facing the industry is vital.
- To help directors with their responsibilities, training is offered through the electric cooperative's statewide association. Five courses must be completed to earn a certificate. Those courses cover director duties and liabilities, understanding the electric business, board roles and relationships, strategic planning and financial decision-making.
- Most directors currently serving their cooperative find the duty extremely rewarding.

Operation Round Up tops \$54,000

KEM Electric Cooperative's Operation Round Up program has contributed \$54,528 to 158 community recipients since it began in 2002.

As KEM Electric Cooperative members pay their electric bills each month, they can also give back to their communities through Operation Round Up.

Operation Round Up is funded by KEM Electric members who "round up" their monthly electric bills to the next dollar. For example, a participant in Operation Round Up with an electric bill of \$38.63 would actually pay \$39 and the extra 37 cents is placed into the Operation Round Up fund.

The average member donates 50 cents a month, or \$6 a year. The most any member would donate is 99 cents a month, or less than \$12 a year.

With 58 percent of KEM Electric Cooperative members participating in Operation Round Up, the pennies donated to the fund quickly add up and are used to benefit organizations and individuals throughout KEM Electric Cooperative's service territory.

Q. Who can apply for funds?

A. Funds are disbursed in the general service area of KEM Electric Cooperative solely for charitable, educational, scientific, health or safety purposes. Organizations must be exempt from federal income tax under s501(a) of the Internal Revenue Code. Funds cannot be used for political purposes.

DONATION ACTIVITIES		
Purpose	Number	Donation
Medical expenses	26	\$8,100
Youth services	59	\$15,978
Medical equipment/services	12	\$4,900
Fire departments	8	\$3,575
Community development	41	\$18,425
Miscellaneous	12	\$3,550

Give a gift that only costs pennies!

Join KEM Electric Cooperative members who support Operation Round Up by "rounding up" your monthly bill to the nearest dollar. If you would like to enroll in Operation Round Up to donate funds, call KEM Electric Cooperative at (701) 254-4666 or (800) 472-2673 or e-mail kem@kemelectric.com. You can also complete this form and return it to KEM Electric Cooperative. Remember, just pennies a month can add up!

Organizations interested in applying for Operation Round Up funds should request an application from the cooperative.

Q. Who decides where the money goes?

A. A board of directors representing the members reviews Operation Round Up applications during the year and determines where the funds will be donated. Operation Round Up officers and board include:

- Tony Schaffner, Zeeland, Chairman
- Viola Gefroh, Hague, Vice Chairman
- Jean Schoenhard, Steele, Secretary/Treasurer
- Bernie Schiermeister, Hazelton
- Pam Gross, Napoleon
- Dan Schuler, Wishek
- Gerard Meier, Ventura

Get an application

If you have a worthy cause in your community, write or call KEM Electric Cooperative for an Operation Round Up application. If you have a question about qualifications, we'll be glad to answer your questions!

For more information, or to request an application, call KEM Electric Cooperative at (701) 254-4666 or (800) 472-2673 or e-mail kem@kemelectric.com.

Deadlines

- In 2011, applications are due by:
- March 31
- June 30
- Sept. 30
- Dec. 30

The Operation Round Up board will meet:

- April 20
- July 20
- Oct. 19
- Jan. 18



CLIP AND SEND

Return the completed form to:
KEM Electric Cooperative, P.O. Box 790, Linton, ND 58552

I want to support Operation Round Up:

Name _____

Account number _____

Address _____

City _____ State _____ Zip _____



KEM Electric Cooperative was recently recognized for sustaining safety programs meeting all the requirements of the national safety accreditation program. Presenting the safety accreditation award to KEM Electric General Manager John Knox (center) are Christina Roemmich, Apprenticeship, Training and Safety Program safety coordinator, and Wally Kalmbach, North Dakota Association of Rural Electric Cooperatives safety services director.



Thirteen area youth attended the Junior Wizards Basketball Camp sponsored by KEM Electric Cooperative in January. The camp was available to all students in KEM Electric's service territory and youth from Ashley, Steele, Wishek, Linton and Strasburg joined Wizards Assistant Coach Bernie Smith and players Darren Cooper and Mike Anderson for the afternoon camp at the Bismarck Civic Center. All the participants also received a free ticket to the Wizards game that evening.

Board meeting highlights



KEM Electric Cooperative Inc. Jan. 25, 2011

- Reviewed report from the Voucher Review Committee
- Approved a capital credit retirement
- Adopted a resolution for the 2011 load forecast
- Reviewed the mission statement
- Approved the special equipment summary

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KEM Electric Co-op's load-management programs.

**Call KEM Electric Cooperative
(701) 254-4666 - (800) 472-2673**

KEM ELECTRIC COOPERATIVE INC.

107 S. Broadway - Linton, N.D. 58552

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Dean Hummel, DirectorHague
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Bair, Bair and Garrity, Atty.Mandan
HDR Engineers Inc.,
Consulting Engr.Bismarck
John Knox, CEO/General Mgr.Linton

**Report outages to the following
toll-free number: (800) 472-2673**

**Hazelton, Linton and Strasburg exchanges'
phone number: (701) 254-4666**

OFFICE HOURS:

Monday through Friday,
8 a.m. to 4:30 p.m.

Web site: kemelectric.com
email address: