

Nodak Neighbor

July-August 2008

Official Publication of Nodak Electric Cooperative
www.nodakelectric.com

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On the cover: Green trees surround Larimore Dam on a warm summer day. Located in western Grand Forks County, the dam offers camping, fishing, swimming and other recreational opportunities. Photo by Minnkota Power Cooperative, Inc.

Commitment

to Community



Steve Breidenbach, left, systems engineer, and Ken Quanrud, line superintendent, participated in the recent Red River International Bike Tour, an annual five-day trek through North Dakota, Minnesota and Canada. Participants experienced both the beauty and the challenge of riding the Plains, complete with flatlands, rolling hills and valleys, lush fields and legendary Midwestern hospitality. Now in its second year, the bike tour is already a destination for bicycle enthusiasts from all over.

Nodak employees Melissa Lunak, right, operations supervisor, and Connie Gierszewski, far right, billing supervisor, participated in this year's Fargo Marathon. A portion of the monies raised is donated to youth-related causes. Since its inception, Fargo Marathon, Inc., has given more than \$100,000 to various local charities.



Nodak is a sponsor of a softball field at Apollo Park and a baseball field at Kraft Field in Grand Forks. Erika Edwards, daughter of Tom Edwards, Nodak's accounting & finance manager, is a member of the Grand Forks Central High Knights softball team.



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The power of human connections



George Berg
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Perspective

Lieberman-Warner bill could double cost of electricity

On June 6, 2008, the United States Senate effectively shelved the Lieberman-Warner Climate Security Act. The proponents of the bill made a motion to end debate and move to a final vote. Such a motion requires 60 votes to pass, and it failed by a vote of 48 in favor and 36 against. Senator Dorgan voted against the motion, and Senator Conrad, who was not present, indicated he also would have voted against the motion.

Clearly, the bill sponsors, Senators Joe Lieberman, Connecticut Independent, and Senator John Warner, Virginia Republican, along with committee chair Barbara Boxer, California Democrat, knew the motion would fail. The strategy of the motion was to table the bill and bring it back after a new president is elected. Both presidential candidates have indicated their support for some form of legislation that will reduce the country's level of greenhouse gas (GHG) emissions. The proponents believe the Climate Security Act can be passed in 2009 with few, if any, amendments. So, what will the bill do if passed by Congress?

The language in the bill sets reduction levels of greenhouse gas emissions equal to 1990 levels by the year 2020 and to reduce emissions by an additional 65 percent by the year 2050. The obvious question everyone should have is what would

this do to the cost of electricity? The short answer to the question is that it would increase the cost significantly.

The biggest target for reduction of greenhouse gases is carbon dioxide from power plants. There is no technology to remove CO₂ from the stack of a power plant. Sequestration of CO₂ is an option, but the cost is extremely high. Another option in the bill is a cap and trade provision whereby a power generator could buy allowances

in lieu of actually reducing their carbon emissions. It is expected the allowances will be very expensive and will essentially be a huge tax added to the cost of production. The Electric Power Research Institute (EPRI) has estimated that this cap and trade approach could cause electric bills to double or even triple. How many of us are ready to have our electric bills follow the recent escalation of gas prices?

Former Federal Reserve Chairman Alan Greenspan has been quoted as saying "cap and trade systems, or carbon taxes, are likely to be popular only until real people lose real jobs as their consequence. There is no effective way to mean-

ingfully reduce emissions without negatively impacting a large part of an economy."

Maybe the most disturbing thought about the Lieberman-Warner bill is that it very likely will have little or no effect on climate change. While we in the United States would be cutting back our carbon emissions and having an adverse effect on our economy, countries like China and India will be building hundreds of new coal-fired power

"When the Lieberman-Warner Climate Security Act re-emerges in 2009, the public needs to be more involved. We need to better understand the economic impact this bill would have, and we need to contact our elected officials to let them know how we feel about the bill's passage."

plants. China has estimated they will build 500 new coal-fired power plants by 2015, and India is planning another 200 coal plants over the next seven years.

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Innovators' dreams becoming reality

Nodak customers are among statewide winners

Scott Ault's brainstorm came when he watched his wife and children narrowly avoid an accident while he was driving a truck during sugar beet harvest.

Zelda Hartje's inspiration happened decades ago, during her youth.

Both of their dreams are now on the fast track after being among the winners in the second statewide Innovate ND Program. Nodak Electric Cooperative customers, they each received \$10,000 in cash, \$25,000 of in-kind services,

and valuable advice from experienced entrepreneurs/mentors in the Department of Commerce-sponsored event.

The program, in cooperation with the UND Center for Innovation, announced the five winners in May. They were selected from an original pool of 83 teams that began the competition in January.

"This has been an exciting program because it shows that innovators and entrepreneurs are alive and well

and hard at work in North Dakota," Gov. John Hoeven said. "The future of our state rests in the hands of innovative people who have a promising business idea and the desire to

build that venture right here in our state."

Making roads safer

The 43-year-old Ault is a Nodak customer at his home in Reynolds and at the rural Grand Forks shop where he and his Deceleration Technologies, LLC partners are refining his idea.

The product is Slow-N-Tell, a device to instinctively illuminate the brake lights on trucks based on their rate of deceleration. This warns trailing vehicles of the deceleration even if the brakes aren't touched by the driver.

The device's purpose is to re-

duce the number of accidents and save lives. "We're trying to make the highways safer," Ault said. "If we can provide jobs and bring some recognition to the technology available in North Dakota, all the better."

The incident that prompted his idea happened nine years ago when a vehicle passed him, unaware that his beet truck and the one ahead of him were downshifting to make a turn.

"The driver missed hitting the back end of the truck ahead of me by about 2 feet," Ault said. "The scary part was that the driver was my wife and my kids were riding along."

"The invention isn't so much a great idea as it is the recognition that there's a problem."

The problem is that truck drivers don't slow down the same way as other drivers. They downshift or use the jake brake to decelerate. Neither of these methods activate the brake lights, nor warn drivers behind them that they are slowing down. Slow-N-Tell provides that warning.

When the Center for Innovation helped him organize his idea, he put together his team, which includes Darren Olafson of Mountain, N.D., as business manager and mechanic Brad Driscoll, East Grand Forks, as technical expert.

"The Center's involvement was validation that this was more than a hairbrained idea," he said.

Although he has some schooling in mechanical engineering, Ault has been a salesman all of his adult life. That experience will come in handy as the group travels this summer to big truck shows in Las Vegas and Dallas to market the product. The target date for having Slow-N-Tell available for distributors is Sept. 1. Prototypes in



Accepting a check from Gov. John Hoeven are Deceleration Technologies, LLC partners Darren Olafson, second from left, Mountain, N.D., business manager; Brad Driscoll, vice president of operations; and Scott Ault, president, far right. (Inset) Ault holds a Slow-N-Tell device, which is designed to reduce accidents and save lives.

ing reality

trucks are already on the road.

"The coolest thing is that all of the parts, the engineering, the manufacturing and research is with North Dakota companies," Ault said. "We believe that someday this type of technology will become mandatory on heavy trucks and, eventually, will be the way that brake lights are activated on all vehicles."

A different innovation

Hartje's project was different than the other 19 finalists.

"Everyone else had an invention or new technology," she said. "It sounded like one set of judges had to convince the other set of judges that we were innovative."

The proposal of Hartje, of Cavalier, N.D., and her sister, Georgia Rice of Minneapolis, Minn., is to build a 30-unit lodging facility west of Cavalier, near Icelandic State Park and the Pembina County Historical Museum.

The once-hesitant judges were convinced by the novelty of a tourist-driven hotel in a rural area.

"There is no other conference or event center like this north of Grand Forks," Hartje said. "Each room will be named after a community in the Rendezvous Region, some of which no longer exist. Plus, we're going to cater to the needs of so many kinds of people."

The destination facility, named Hotel Rendezvous, will feature a pool, party room and a 150-person conference center, creating a destination hotel. It will be used for smaller conferences, plus for tourists attracted by the historical, cultural and outdoor recreation assets of the area.

A snowmobile trail and bike path are close to the hotel site. Not far away

is the Pembina Gorge, a jewel for nature lovers.

Hartje understands the attractions of the area. She has spent almost her entire life in the region, working 31 years in the North Border School District as a teacher and librarian. She has been the museum administrator for 17 years and was the coordinator of the Rendezvous Festival for its 11-year run. The area is known as the Rendezvous Region because it was a meeting place for Native Americans, trappers and traders.

She believes the availability of new lodging will drive more tourism. The feasibility study showed the business will return \$1.4 million to the community annually.

"We're off the beaten path here," she said. "People are amazed when they first come here and see what we have."

Hartje said she's dreamed of running a hotel since she was a child. "My sister and I had slowly been working on this for a couple of years, but then the innovation contest pushed us forward. It made us realize that we're either going to do this, or we aren't going to do this."

They were convinced after going through the equivalent of innovation boot camp. The next step is finding investors. The hope is to break ground before the year is over and be open in the summer of 2009.

Hartje said she's eager to work with Nodak in "trying to make the hotel as green as possible. We're planning geothermal heating and cooling, among other things."



Hotel Rendezvous winners Zelda Hartje, second from left, Cavalier, N.D., and Georgia Rice, Minneapolis, Minn., accept a check for \$10,000 from Gov. John Hoeven. Also pictured is Bruce Gjovig, far right, entrepreneur coach and director of the Center for Innovation. Gjovig has been North Dakota's "go-to guy" for entrepreneurship, innovation and capital investing since he launched the Center in 1984.



Innovate ND was launched in November 2006 by the governor and was coordinated by the Governor's Office, the North Dakota Department of Commerce, the UND Center of Innovation, and the UND Entrepreneur Department. Participants paid \$100 to enroll in the program.

The program was made possible by more than \$200,000 in private-sector contributions and in-kind professional services donations, as well as appropriated funds through the Department of Commerce. For more information, visit www.innovatend.com.



Minnkota announces strategic agreement

Nodak Electric Cooperative's wholesale power supplier, Minnkota Power Cooperative of Grand Forks, N.D., recently announced an agreement with Minnesota Power, an investor-owned utility based in Duluth, Minn., to secure additional energy from Milton R. Young 2, a 455-megawatt (MW) coal-fired plant near Center, N.D., owned by Square Butte Electric Cooperative.

Currently, the output from Young 2 is purchased under contract by Minnkota and Minnesota Power, with each utility receiving approximately 50 percent. Electricity generated by Young 2 flows over a direct current (DC), 465-mile transmission line from Center to Duluth, where it is converted back to alternating current (AC) for further transmission into the Minnesota Power and Minnkota service areas.

Under the terms of a Memorandum of Understanding, Minnesota Power will assign their Square Butte power purchase contract to Minnkota. This transfer will facilitate gradual increases in the Minnkota capacity and energy allocations from 2013 through 2026. At that time, the cooperative will begin to utilize 100 percent of the Young 2 output.

Growing system

Minnkota's energy sales to the 11 Class A member-owner cooperatives continue to increase each year. The latest Power Requirements Study forecasts an annual growth rate of 2.5 percent system wide.

"The member-owner distribution cooperatives are experiencing moderate but manageable growth in demand for electricity as the rural economy expands," said David Loer, Minnkota President & CEO. "High energy producing baseload generation is necessary to meet that demand reliably and affordably. Along with additions of wind energy and energy efficiency measures, this project will provide Minnkota with the power needed to serve long-term, future load requirements."

To bring the energy generated by Young 2 into the Red River Valley and to allow the existing DC line to deliver additional wind energy, Minnkota will construct a new 345-kilovolt (kV) transmission line from Center to either Fargo or

Grand Forks. The line is scheduled to be completed by 2013.

The existing DC line and DC/AC conversion facilities will be sold to Minnesota Power for fair value on Jan. 1, 2009. Minnesota Power plans to add several hundred megawatts of new wind generation near Center and will utilize the DC line to transmit that energy to Duluth.

"We value our long-term partnership with Minnkota, and we expect to continue working together on future strategic issues," said Don Shipp, President & CEO of Minnesota Power's parent company, ALLETE, Inc. "This agreement enables us to reconfigure our power supply resources to better meet our respective long-term needs. For us, it's a creative way to tap the rich wind resources of North Dakota and bring more renewable energy to our Minnesota customers."

North Dakota Gov. John Hoeven added, "We've worked closely with these two innovative companies to further develop our state's renewable and traditional energy resources. This agreement will provide future power supply for Minnkota and allow Minnesota Power to develop additional wind energy in western North Dakota."

Generation resources

The primary sources of baseload generation for Minnkota are the Milton R. Young Station near Center, and the Coyote Station near Beulah, N.D. Both plants utilize North Dakota's vast lignite coal reserves and provide approximately 80 percent of the Minnkota energy requirements.

In addition to owning two commercial-scale wind turbines in North Dakota, one near Valley City and the other near Petersburg, Minnkota is also purchasing energy from the newly developed Langdon Wind Energy Center south of Langdon, N.D. Wind energy now supplies about 10 percent of the Minnkota annual energy requirements. Minnkota is working with wind developers to expand its wind portfolio to more than 300 MW during the next two years, which will then provide more than 25 percent of its annual energy requirements.

Minnkota receives 10 percent of its total energy supply from hydropower allocations through the Western Area Power Administration (WAPA).

*Young 2 capacity
allocations to increase
starting in 2013*

Nodak Electric Cooperative welcomes new employees to the team



Gretchen Schmaltz
Energy Services Analyst



Joe Snustad
Staking Engineer



Ryan Schmaltz
Operations Technician



Todd Lommen
Apprentice Apparatus Technician

Four new employees have joined the Nodak Electric Cooperative team: Gretchen Schmaltz as energy services analyst, Joe Snustad as staking engineer, Ryan Schmaltz as operations technician, and Todd Lommen as apprentice apparatus technician.

Gretchen Schmaltz, energy services analyst, works with Nodak's commercial accounts, as well as load management control. In addition, she works with the cooperative's automated meter reading system and is in charge of maintaining communications throughout the department. An Angus, Minn., native, Gretchen earned an agricultural business degree from the University of Minnesota, Crookston. She went on to earn a master's degree in agricultural business and applied economics from North Dakota State University. Gretchen, her husband, Cory, and one-year-old daughter, Kylie, live in rural Grand Forks. In her spare time, Gretchen enjoys spending time with family and bargain shopping.

As a staking engineer, Joe Snustad meets with clients to assess their electrical situations and provides solutions accordingly. He also assists with updating Nodak's GIS system to accommodate the implementation of its automated meter reading system. A Bismarck, N.D., native, Joe graduated from the University of North Dakota with a civil engineering degree. Joe and his wife, Brittany, have an 18-month-old son,

Kayden, and are expecting a baby girl any day. They live in Grand Forks. Joe enjoys fishing, golfing and plays frolfing (frisbee golf) when he has a chance.

Ryan Schmaltz has been hired as an operations technician. He is primarily responsible for dispatching crews. In addition, he handles the outage database and assists with Nodak's automated meter reading system. Originally from Grand Forks, Ryan graduated from the University of North Dakota with a degree in industrial technology. In his spare time, Ryan plays softball and coaches youth hockey. Ryan and his new bride, Erin, live in Grand Forks.

As an apprentice apparatus technician, Todd Lommen works in the metering department at Nodak. He is responsible for assisting with metering installation at new services, as well as changing out and repairing meters. A Marion, N.D., native and a graduate of North Dakota State College of Science in Wahpeton, Todd earned a degree in electrical technology and interned at Nodak in the summer of 2001. Todd, his wife, Amy, and one-year-old daughter, Addison, currently live in Fargo and are looking to move to Grand Forks. Todd is an avid bow hunter and enjoys goose hunting.

AMR update – billing change

The goal of Nodak's automated meter reading system (AMR) is to read all of the cooperative's meters from our office in Grand Forks. We are happy to report that we are well ahead of our scheduled plan to be completed in two years. Nodak started this project about a year ago, and today we can report that the work will be done by the end of the year, six months ahead of schedule.

The final step of the AMR process is reading the meters. We are currently reading approximately 11,000 meters through our AMR system and will be converting more meters as the substations are completed. Your Nodak bill will become current instead of a 30-day delay. Rather than receiving your bill on approximately the 20th of the following month, you will now receive your bill near the end of the current month, which is approximately 20 days sooner than in the past. Please note that this change does not affect your billing period, only the date you receive your bill. We will notify you by letter when we convert your account to a current basis.

Minnkota, FPL Energy announce wind farm addition



Minnkota Power Cooperative, Nodak Electric Cooperative's wholesale power supplier, has signed a contractual agreement with FPL Energy to purchase more electricity from an addition to the Langdon Wind Energy Center located in Cavalier County.

The project will utilize 27 additional General Electric (GE) wind turbines, each having a nameplate capacity of 1.5 megawatts (MW). The expanded facility is expected to provide another 140 million kilowatt-hours (kWh) to Minnkota each year. By the end of 2008 when the 40.5-MW expansion is completed, more than 13 percent of Minnkota's annual energy sales to the associated cooperatives and municipals will be derived from the wind.

"We are pleased to purchase additional energy from the Langdon Wind Energy Center expansion," said David Loer, Minnkota President & CEO. "Minnkota plans to add more than 300 MW of renewable energy to our generating portfolio during the next several years. The expansion at Langdon is part of that effort."

Studies have shown that the existing 115-kilovolt (kV) transmission infrastructure, which was enhanced last year, is adequate to carry the additional wind energy into the regional grid without major modifications.

FPL Energy, a subsidiary of FPL Group, currently operates five wind farms in North Dakota near Center, Edgeley, Kulm, Langdon and Wilton, totaling more than 328 MW. As the nation's leader in wind energy, FPL Energy has wind farms in 25 states, totaling more than 5,210 MW of wind capacity.

Minnkota is a generation and transmission cooperative that supplies wholesale electricity to 11 electric distribution cooperatives serving a 34,500-square-mile area in eastern North Dakota and northwestern Minnesota. Minnkota is also operating agent for the Northern Municipal Power Agency (NMPA), which serves 12 municipal utilities in the same geographic region.

Together, the Minnkota/NMPA Joint System serves more than 129,000 customers.



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