North Star ELECTRIC COOPERATIVE
Your Touchstone Energy® Partner

Enlightener

Baudette, Minnesota

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Power plant tour

Above photo, North Star Electric Cooperative members take time out to get their picture taken at the Milton R. Young Station located near Center, N.D. Fifty North Star members went on the three day tour. The tour is a great way for Cooperative members to learn firsthand what it takes to produce and deliver electricity to our area. The night before the tour, a banquet was sponsored by Minnkota Power Cooperative, and a Minnkota representative made an informative presentation to the group. Right photo, an SUV is dwarfed by the massive Liberty dragline at the coal mine. Bottom photo, members line up to see what the inside of the *Infinity Wind* generator looks like. Make plans to join us next year on this fun, fact-finding tour.

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North Star Enlightener
ELECTRIC COOPERATIVE
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Visit our Web site at
www.northstarelectric.coop

North Star Electric Cooperative, Inc.

Mission Statement

To improve the lives of our member-owners and community by responsibly providing electric energy and other beneficial services while maintaining the very highest standards of performance.

Gopher State One Call

It's the LAW
CALL BEFORE YOU DIG
Minnesota Statewide One Call
Notification Center
1-800-252-1166

Highlights from the BOARDROOM

These are the highlights from the board of directors meeting held on June 6, 2007. All directors were present. They acted upon usual, routine business. In addition, they voted to move the billing cycle more current, waive the fixed charge for all members for one month, and to accept the Safety Committee meeting minutes.

Reports from staff included the April financial report, the electronic processing of checks, staffing requirements, load management, training for the use of the infrared camera, Steffes ETS heat training, Operation Round Up, the upcoming Power Plant Tour, Member Appreciation Days, the high-voltage safety demo trailer, safety camp, safety presentations at area schools, tree planting on North Star's land, the accurate inventory counts, pricing for a market survey analysis, Marathon water heaters, possible rebates from Northland Connect for excess WildBlue installations in North Star territory, working with members on right-of-way issues, strategic planning, review of the Bylaws, the work plan project contract, a local biomass fuel project, thoughts on incorporating more technology for board communications, material management, the continued stretch of hours worked without a lost-time accident, part-time summer apprentice line workers working out well, equipment, the bid for right-of-way spraying being awarded to Central Applicators, and receipt of petitions by Directors Brzoznowski and Nygaard to be placed on the ballot at this fall's annual meeting.

President Arnesen asked if infrared camera applications desired by the membership would be available, which they eventually will be, at actual cost.

Also discussed was the possible fate of the planned coal-fired plant, Young 3. With new environmental legislation and renewable mandates, it is unclear if the construction of this plant would be feasible; however, new resources of generated electricity are needed. This country needs electricity to manufacture goods, and we cannot job-out everything to other countries who are building low-cost coal-fired plants at a rapid pace. (side note – Ironically, China is bringing a coal-fired power plant online every 10 days with no emission control at all. Plus China manufactures quite a few products for the U.S. – jobs we could have here.)

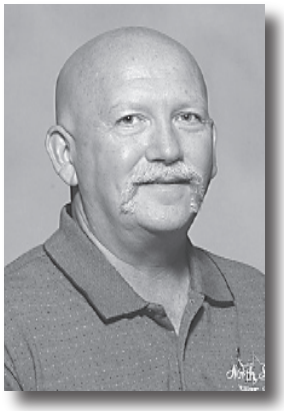
Detailed minutes are available at the Cooperative for member review. Regular board meetings are generally held the first Wednesday of every month. If you wish to speak with the board, or have an item that you would like to have placed on the agenda, please contact Manager Dan Hoskins at least one week in advance to be included on the agenda.

CURRENT ELECTRICAL INSPECTORS

State law requires that every new electrical installation in any construction, remodeling, replacement or repair shall file a certificate for inspection with the State Board of Electricity and be inspected by a Minnesota electrical inspector.

- *St. Louis and Koochiching counties:*
  Bob Orgon
  10111 Roosevelt Rd. S.E.
  Bemidji, MN 56601
  Phone: (218) 556-3829
  Fax: (218) 751-3535
  7:00 a.m. - 8:30 a.m. (Mon. thru Fri.)

- *Roseau and Lake of the Woods counties:*
  Scott Stenvik
  16409 State Hwy 1 N.W.
  Thief River Falls, MN 56701
  Phone: (218) 689-5406
  7:00 a.m. - 8:30 a.m. (Mon. thru Fri.)



"We need our low-cost reliable electricity to sustain our economy, create new jobs and maintain the jobs we still have here in our country."

Dan Hoskins, General Manager

Why not coal?

Hi, folks…. I'm going to get up on my soapbox for a little bit and rant and rave. My topic today is "Why not coal?"

Coal has been a great source of energy to provide electricity since 1882 when Thomas Edison developed the first practical coal-fired electric generating station in New York City to supply electricity for household lights.

I grew up with coal; my father was a coal miner, my uncles were coal miners and my brother-in-law was a coal miner. They were shaft miners, meaning that they mined below the surface of the earth. I remember, as a young boy, that sometimes my folks thought I needed a trip to the coal shed for a little disciplinary action (if you get my drift!), but most of the time, I had to go to the coal shed to retrieve a bucket of coal for the stove to heat our home and to heat water on the coal stove to bathe with. Coal has been used in our power plants in this nation for well over 100 years to give us electricity and help the American people advance to be "The Top Nation in the World."

I am not against renewable energy! As a matter of fact, there are some folks in our area, including me, who are looking at ideas to see if there is enough interest and capabilities to possibly have a biomass project, or similar energy project, up here in this area, and although I am not a big fan of wind energy, I do believe that it does have its place, and it may be enough to relieve some pressure off of our need for energy. I would love to see some sort of renewable energy that would develop and help us get rid of 550 hours of load control for our members (sorry, Minnkota, had to throw that in there) and provide us with reliable, dependable, low-cost electricity as coal does.

But, what I really don't understand, is how some of our elected politicians come out and say that we must get coal out of our future, because they will never pass legislation with coal in it. I have heard that twice now from my visits with our politicians, and I am sorry, but I believe that I differ greatly on your stance! Coal has been a very significant part of how we have grown to do everything that we do in this country, and to just shut the door on such a valuable and abundant resource doesn't seem right. So, I'll ask the question, "Why not utilize this resource until a better alternative is developed and continue to study burning not only coal, but anything cleaner?" You don't throw away the lawn mower until you find a better way to cut the grass!

I am not saying that we should use coal forever; I believe that we should try and minimize the pollutants that are being put into the air, but why, all of a sudden, do away with it and create high energy costs for our members when you could use coal to produce electricity while a new alternative way to create energy is found that is as cost-effective, or better, and just as reliable as coal.

We need our low-cost, reliable electricity to sustain our economy, create new jobs and maintain the jobs we still have here in our country. I don't think creating energy mandates that force the cost of everything to go up is the answer; I believe that when you mandate something, you should also bring a solution. (353-12-008-01 Dennis D/Debra Beckel) Mandating is the easy part; the solution is what costs the consumer money, and this is usually, because there is no immediate solution to a mandate.

Well, now, while I climb down off of my soapbox, I would like to sign off by saying, "Ladies and gentlemen, here at North Star Electric Cooperative, we distribute the greatest product in the world, electricity, and we do it dependably, reliably and at our lowest cost."

God Bless you and our Troops,
Dan

Meeting your growing need for electricity and the environment

During the next 10 years, the nation's generation and transmission (G&T) co-ops plan to invest an estimated $35 billion in new power plants, transmission facilities and emission-control equipment.

This meets co-op members' fast-growing demand for electricity, plus complies with new regulations. This additional 15,000 megawatts (MW) of new generation – an increase of nearly one-third more than existing capacity – will involve the most cost-efficient, time-tested and low-risk option available: building coal-fired power plants.

According to the U.S. Energy Information Administration, "King Coal" still reigns as the least expensive and most abundant fuel used to produce electricity. One billion tons are burned annually. It accounts for 50 percent of the nation's power supply and 80 percent of the electricity from electric co-ops.

"The United States remains the Saudi Arabia of coal – we boast a 250-year domestic supply," reported Joe Lucas from Americans for Balanced Energy Choices. "In fact, there's more coal in the U.S. than oil in the Middle East. From a national security standpoint alone, coal must play a key role in our energy future."

Yet, coal increasingly has become "target one" on most political radar screens. Coal-fired power plants emit only about one percent of the world's carbon dioxide, a common element of life, yet one increasingly viewed as a "pollutant." In comparison vehicles and transportation are responsible for 29 percent of U.S. man-made carbon dioxide emissions; factories and large industry, 18 percent; and homes and small businesses, 13 percent. The U.S. leads the world in emitting carbon dioxide. However, China will take over the top spot in a few years. China fires up a coal-fueled generated station big enough to power San Diego every 10 days and plans to add 2,200 such plants by 2030.

Most scientists now accept that human activities – chiefly the burning of fossil fuels such as coal and oil – boost the carbon dioxide in the atmosphere. Too much of the gas, the consensus holds, kick-starts a greenhouse effect by thickening a heat-trapping blanket around the planet that has begun to alter climate patterns.

A majority of Americans see global warming as a threat – 85 percent according to a March 2006 Time/ABC News/ Stanford University survey. From hurricanes in Florida, to a freeze in southern California, to a balmy January for New Yorkers, people attribute these unusual weather phenomena to long-term climate change.

Public clamor over the issue stirred up legislative action. On Capitol Hill a flurry of bills aimed at cutting greenhouse gases from the stacks and tailpipes are under consideration.

The changing political landscape presents huge challenges for electric co-ops – serving more than 40 million people in 47 states and experiencing strong average consumer growth – as they tackle tough power supply choices. New baseload coal-fired power plants cost $750 million to $2 billion and take up to 10 years to site and build.

This investment can seem like a real gamble in an environment where "NOPE" (Not On Planet Earth) groups fight tooth-and-nail against any kind of power plant development. Leading NASA climate change scientist James Hansen calls for halting new coal plants and bulldozing old ones. Plus, Congress

may soon regulate carbon dioxide, and thereby, increase costs for operating a coal-burning power plant. Technology for near-zero emissions clean coal with carbon capture and geologic sequestration technology may be available within a decade after conventional coal plants being permitted today come online.

"There are inherent risks associated with any type of new baseload facility," admitted John Holt, National Rural Electric Cooperative Association (NRECA). "Yet, what are the alternatives? Co-op load is growing faster than investor-owned utilities, and municipal electric systems. As consumer-owned utilities, we have an obligation to serve, to act on long-term strategies and sustain long-term economic growth."

Holt noted that baseload nuclear power, while producing energy that's relatively low-cost and clean from an emissions standpoint, still faces heavy political opposition in many circles; it also carries large liability risks and has no long-term solution for disposing of high-level radioactive waste.

Natural gas, once the fuel of choice for generating electricity, faces supply bottlenecks, upward pressure on prices and the same carbon dioxide issues as coal plants, although on a smaller scale. Factor in these gas issues and the co-op desire for rate stability, new gas plants coming online have largely been designed as "peakers."

Renewable energy sources, like wind and solar, play roles in addressing rural development, climate change and energy security concerns.

"As long as the government provides tax incentives, wind can be competitive with other fuels," Holt stated. "Otherwise, you're looking at a 50-year payback. Wind realistically is only available about 30 percent of the time. The bottom line with renewables is that you still need baseload generation to maintain a reliable supply of power flowing across the grid at all times of the day."

"If co-ops don't build, we could find ourselves in a situation where we have a shortage of electricity," said Robert Bryant, president and general manager of Golden Spread Electric Cooperative, a G&T in Amarillo, Texas. "A shortage of power will create a real reliability crisis. To cope people who can afford it will install backup generators, but that produces more total greenhouse gases than depending on centrally dispatched and controlled power plants."

Yet, President Bush's proposed fiscal year 2008 federal budget threw a monkey wrench into co-op power plant financing efforts. The blueprint eliminates the ability of G&Ts to use federal Rural Utilities Service (RUS) guaranteed loans to pay for new baseload facilities. Such funding would instead come from commercial banks and Wall Street.

However, a coalition of "green" groups has begun pressing banks to reject loan requests for coal-fired electric power plants. So far, Bank of America has committed to withholding funds for energy projects that emit large amounts of greenhouse gases. Forty-five other financial institutions have agreed to guidelines for social and environmental risks of any investment.

"Policymakers and consumers must understand utilities have to make 'build

or buy' decisions based on the technology that exists now," remarked Stu Dalton, from the non-profit Electric Power Research Institute in Palo Alto, Calif. "They have to look at the risks and costs of applying first-of-a-kind technology and weigh that uncertainty against potential gains, such as improved efficiency or reduced emissions. (784-05-007-03 David Reimer) For example, clean coal technology with carbon capture is being developed, but choosing what form it will take and what will produce the best economics for any one coal type or site conditions is like betting at the racetrack – it's not clear right now which horse will win."

Promising clean coal generation now available includes circulating fluidized bed (CFB) technology, developed by the U.S. Department of Energy (DOE) Clean Coal Technology Program, and coal-fired Integrated Gasification Combined Cycle (IGCC). Unlike conventional coal plants that burn powdered coal at temperatures ranging from 2,200 degrees to 2,400 degrees Fahrenheit, CFB units consume crushed coal – less than three-eighths of an inch thick – between 1,500 degrees and 1,650 degrees Fahrenheit and mixed with limestone; air blown into the boiler suspends the mixture as it burns. IGCC turns coal into a gas and then removes impurities before combustion. However, neither CFB nor IGCC, by themselves, result in lower carbon dioxide emissions.

"IGCC plants don't have a strong track record on reliability unless they add an additional gasifier chain at a cost of at least 20 percent more," Holt cautioned. Only two IGCC plants are currently operating in the U.S., but several are under evaluation.

"We must keep expectations in line," suggested Tony Ahern, CEO of Buckeye Power, a G&T in Columbus, Ohio. "History shows that new technology takes 30 to 50 years to develop and implement. In the early 1800s, 99 percent of our energy came from burning wood. It took until 1880 for coal to catch up with wood in providing half our nation's energy needs. So we're not going to shift away from existing coal-fired generation overnight."

For decades electric co-ops have stood out as leaders in developing green power. Today, more than 700 of the nation's 900-plus co-ops offer renewable energy from wind, solar, hydroelectric or biomass sources. Renewables comprise about 11 percent of co-op kilowatt-hour sales.

Midulla, who chairs the NRECA Environmental Task Force, also stresses that not-for-profit electric co-ops have long embraced the benefits of energy efficiency.

"Keeping up with rapid growth is one of our major challenges, so we get immediate cost reduction when consumers install more energy-efficient ground-source heat pumps, lighting, heaters, air conditioners and appliances," he explained. "Combined with improved efficiencies in power plants and load management programs that reduce electricity purchases during peaks, co-ops can temporarily head off the need for new generation, while curbing greenhouse gas emissions. After all, the cleanest kilowatt is the one never produced."

Courtesy of *Rural Electric Magazine*
April 2007, NRECA

Safe Electricity Offers Summer Safety Tips

Children often do not understand the dangers of electricity. For safe outdoor play, Safe Electricity recommends that children be taught to follow these rules:

- Never climb trees near power lines. Even if the power lines are not touching the tree, they could touch when more weight is added to the branch.
- Fly kites and model airplanes in large open areas like a park or a field, safely away from trees and overhead power lines. If a kite gets stuck in a tree that's near power lines, don't climb up to get it. Contact your electric utility for assistance.
- Never climb a utility pole or tower. Don't play on or around pad-mounted electrical equipment.
- Never go into an electric substation for any reason – even on a dare. Electric substations contain high-voltage equipment, which can kill you. Never rescue a pet that goes inside. Call your electric utility instead.

Summertime brings people outdoors. Whether heading outside for summer fun or yard work, Safe Electricity recommends that families review and follow simple safety rules to avoid outdoor electrical hazards that can cause serious injury or death. Of particular concern are overhead power lines, and the added dangers of using electricity outdoors, around water.

"Keep your summer season enjoyable and safe," said Molly Hall, director of Safe Electricity. "Be aware of overhead power lines when working or playing outside your home. Make sure children know and follow basic safety rules."

Safety tips to keep in mind this summer:

- Look up and around you. Always be aware of the location of power lines, particularly when using long metal tools like ladders, pool skimmers and pruning poles, or when installing rooftop antennas and satellite dishes or doing roof repair work.
- Be especially careful when working near power lines attached to your house. Keep equipment and yourself at least 10 feet from lines. Never trim trees near power lines – leave that to the professionals.
- If your projects include digging, like building a deck or planting a tree, call your utility locating service before you begin. Never assume the location or depth of underground utility lines. Call at least two business days ahead of your dig date. This service is free, prevents the inconvenience of having utilities interrupted, and can help you avoid serious injury.
- For outdoor landscaping and decorative lighting, consider solar lighting units available for patios, steps and sidewalks.

Be careful using electrical appliances outdoors. Whether it is a lawn and gardening device, a bug zapper, an electric charcoal lighter, a radio or CD player, caution must be exercised. Be sure you use outlets that have ground fault circuit interrupters (GFCI) to prevent serious shock injuries. Use portable GFCIs for outdoor outlets that don't have them.

If you need to use extension cords outside, check them carefully for exposed wires; make sure they are in good shape, and not frayed or cracked. Use only extension cords that are UL-rated for outdoor use, and are large enough to handle the current needed for the device you are using. Check that the prongs on the extension cord plugs are clean, not broken or bent. Make sure the ground prong is intact in a three-prong plug, and avoid use of adapters for safety reasons.

Never use electric yard tools if it's raining or the ground is wet. Keep electrical appliances and tools at least 10 feet away from pools, ponds and wet surfaces.

"Electricity and water are a dangerous mix," warns Hall. "Do not use electrical appliances in wet areas – even wet grass can create a hazard."

When designing an outdoor play area for your children, do not install playground equipment or swimming pools underneath or near power lines.

"Summer storms and floods can also leave electric hazards behind," Hall added. "It's a good idea to keep utility emergency numbers close at hand."

Never step into a flooded area if water is in contact with electrical outlets, appliances or cords. Before re-entering a storm-damaged building, make certain the power is shut off. Don't touch main circuit breakers or fuses when you're wet or standing in water.

If you see a downed power line, keep everyone away from it, and call your electric utility. Assume that all downed power lines are energized.

Office Notes

Ann Ellis
Manager of Finance
and Administration

Annual meeting

It's never too early to plan to attend the annual meeting. This year it will be held on Oct. 12 at the Littlefork-Big Falls School.

Joint memberships

For either a husband or wife to have the ability to cast the vote representing their membership, both names must be on the membership application. If both names do not appear on your billing statement, you may want to request a new membership application to update this. Although there is only one vote per membership, a joint membership grants membership advantages to both.

Billing Update: Six additional days of electric usage will be added to the bills you receive in July, August, September and October. By November, our billing cycle will be caught up and your bills will return to one month's usage.

Billing cycle change . . . instant AMR readings allow it

Beginning with the electric bill you receive this month, you will notice that six additional days of electrical usage have been added to this bill. Rather than reading the meters on June 25, our AMR (automated meter reading) system read them on July 1. Six more days will be added to each of the next three bills so that we can bring our billing more current, rather than billing a month later.

Because our kWh sales in January and February exceeded our expectations, we will be waiving one monthly fixed charge for all members during this catch-up period.

So why would we make the change? For one reason, it may be easier for you to pinpoint the cause of increased kWh usage, and correct it, if it's billed soon after being used. Another reason is to help with our bill collecting efforts and cash flow.

Something else to keep in mind is the comparison in the upper right portion of your bill. It will include the additional six days of kWh usage (36 days total), but will still be labeled as a "month," so keep that in mind.

Another change is with the automatic monthly payments (ACH). We will be sending the electronic file to the bank on the 5th of each month, meaning the money could be transferred a couple of days later than in the past. These ACH payments will be credited to your electric bill on the 5th, eliminating the worry of getting your bill paid on time. If you are interested in signing up for ACH, the form is available at **www.northstarelectric.coop** or you can call us (634-2202 or toll-free at 1-888-634-2202).

AMR update . . . what happens when we can't read your meter

One issue we are running into is when breakers are turned off. (783-33-087-01 Robert Hiss) The AMR system can only read meters if there is power to them, so we are asking members to leave their main breakers on at all times. If you have questions or concerns about this, we'll be happy to discuss alternatives with you.

We have a very small number of meters that are still not communicating with the office. While we continue to work on these issues, we have asked these members to continue to read their meters and call or e-mail the information to us. A big thank you to these members who are helping out and demonstrating the cooperative way – working together.

Problems paying your electric bill?

Energy assistance may be available!

If you are receiving a low income or suffering from a temporary financial shortfall, the following agencies may be able to assist you with your electric bill. We urge you to contact them immediately to avoid disconnection if you feel you are eligible for aid.

Lake of the Woods County Community Services
P.O. Box G-0200
Baudette, MN 56623
634-2642

Northwest Community Action Council
P.O. Box 67
Badger, MN 56714-0067
800-568-5329

Koochiching County Community Services
1000 5th St.
International Falls, MN 56649
283-7000

Kootasca Community Action, Inc.
2232 2nd Ave. E.
P.O. Box 44
International Falls, MN 56649
283-9491 or 800-559-9491

Kootasca Community Action, Inc.
1213 SE 2nd Ave.
Grand Rapids, MN 55744-3984
800-422-0312

Arrowhead Economic Opportunity Agency
702 3rd Ave. S.
Virginia, MN 55792-2797
800-662-5711

North Star members walk past the Liberty dragline huge 77-yard bucket.

Al Tschepen, Minnkota vice president of planning and system operations, explains how the control center works.

Members Leroy Nelson and Jerry Anderson enjoy the tour inside the Liberty dragline.

Power plant tour

Ed Solarski, Minnkota lead operator, explains the standby diesel generators to tour participants.

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