Baudette, Minnesota

North Star

ELECTRIC COOPERATIVE

MANAGER'S REPORT

Electric car tour stops at North Star

If you've heard of the Chevrolet Bolt, you know that this affordable electric vehicle will generally travel 200 miles before needing to recharge.



Minnkota Power Cooperative recently purchased a Bolt and took it on a tour to each of the member-cooperative's headquarters. We hope that if you are interested in this technology, our mad-dash to get the word out reached you. Contact us if you are thinking about either an All-Electric Vehicle or a Plug-in-Hybrid-Electric Vehicle (a PHEV switches over to gas when the

battery gets low and cures any "range anxiety" owners may have). We have **up to \$500 in rebates** for members installing charging stations.

Safety

I'm sure you've heard it a hundred times: "Stay away from power lines," but sometimes we react less safely when a situation catches us off guard. What would you do if a power line fell on your vehicle? What if you were swimming and felt a shocking sensation? What if you were outside checking out storm damages and there was a power line on the ground? Check out the three graphics in this issue of the *Enlightener* to help you be best prepared. Stay safe!

(article continued on page 3)

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STEP POTENTIAL What you need to know: A downed line does NOT have to be arcing or sparking to be energized — and dangerous. Even if you do not touch lines or equipment, you can still be killed or seriously injured. The danger exists beyond the point where 360° the downed line is making direct contact with a vehicle or the ground. Electricity can flow 360° around it. What is step potential? If a person connects two different points of this gradually decreasing voltage by walking away, stepping out of a vehicle, or touching the vehicle and ground at the same time — electricity flows through the individual (path to ground) Stay safe. If you're in a car accident that involves downed lines, stay in the car. If you come upon a scene with a downed line, stay far away and **call 911** to have the utility notified.

Learn more at

Safe

Electricity.org

ghtener

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North Star Electric Cooperative, Inc. **MISSION STATEMENT:**

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

This institution is an equal opportunity provider and employer.

Invest in 30 days of **SAFETY SAFETY**

ow prepared are you and your family for disasters or



emergencies? The Federal Emergency Management Agency (FEMA) designates National Preparedness Month at the time to assess and prepare for a number of possible situations: floods, wildfires, severe storms like tornados and hurricanes and prolonged power outages from natural disasters.

According to the Centers for Disease Control (CDC), less than half – only about 46 percent of people – think a natural disaster is likely to happen within their community. The reality is that most people will experience the impacts of some natural event year to year.

- Remember regardless of the specific disaster, reaching out for help and knowledge is the first step for staying safe. Do not hesitate to call 911 if you feel you are in danger, and stay engaged online for updates and information during a disaster.
- As many disasters result in the loss of power, generators can help restore electricity. Remember that generator exhaust contains carbon monoxide, which can build up quickly and prove to be deadly. Do not run your generator inside the home or near windows.
- Prepare an emergency preparation kit so you'll have what you need in the event of an emergency. Keep your kit in an easily accessible location and include nonperishable food, but also necessary items like a weather radio and flashlight.
- Once your kit has been packed and verified, it's time to review your family's emergency communication plan and meeting place. As you're developing your disaster preparation kit, make sure that you're aware of how to best keep your pets safe.
- Keep up-to-date with current public health emergencies and preparations should be made. Know how to contact your local emergency service management agency so that you can check in before, during and after a disaster has taken place.

For more information on disaster preparation and electrical safety, please visit **SafeElectricity.org**.

If you feel a **SHOCK,** swim AWAY from the DOCK!



Did you know? Electricity can enter water from energized boats and docks.

If you are in the water and feel electric current:

- SHOUT to let others know.
- **2 TUCK** your legs up to make yourself smaller.
- **3** Try to go out AWAY from anything that could be energized.
- 4 Do NOT head to boat or dock ladders to get out.







One free, easy call gets your utility lines marked **AND** helps protect you from injury and expense. Safe digging is no accident:

ALWAYS CALL 811 BEFORE YOU DIG.



Ann Ellis

General Manager

MANAGER'S REPORT

(article continued from page 1) –

Sweltering in the heat?

Did you have a chance to look at the demo ASHP (air-source heat pump) on display in our lobby and at

the Lake of the Woods County Fair? Mini-split air-source heat pumps will cool AND HEAT your home super efficiently by simply reversing the direction of the heat transfer; plus they do not need ductwork (242-45-039-11, Robbin Madoll). Watch our YouTube video of Wayne



answering members' questions about air-source heat pumps at **https://youtu. be/tjRfb7m6KnM** or search YouTube for 'North Star Electric ASHP'.

At your service we remain ... Ann

hlights from the BOARDROOM

These are the highlights from the board of directors' June 6, 2018, meeting. All board members were in attendance. In addition to routine motions, the board voted to approve the retirement (payment) of \$538,510 of capital credits to the members this fall, to approve updates to the MAYDAY Emergency Procedures policy, to approve submission of an application to the CoBank Sharing Success program for a matching grant to support the Lake of the Woods International Ice Arena/Community Center Project and to approve the purchase of a new self-healing AMI (automated metering infrastructure) mesh system through Landis+Gyr to replace the current power line carrier AMI system.

Staff reports included the safety report, safety and MAYDAY training, capital credit retirements, the opening of the application period for CoBank's Sharing Success grant program, the financial report, loan funds advanced from Rural Utilities Service (RUS) for power line construction/ improvements, the office position opening in the Baudette office, the new air-source heat pump (ASHP) for the Baudette office, Member Appreciation Days, Operation Round Up, the power plant tour, new services, upgrades, the work plan project between the Williams and Wheeler substations and the possibility of providing contracted line maintenance for the city of Baudette.

Visiting guests first included Mike Schulz and Derek Olson from the Lake of the Woods International Ice Arena board. They provided a brief presentation of their project, which recently broke ground adjacent to the Lake of the Woods School. TJ LaPorte, account executive of Landis+Gyr, and Jim Murray, outside sales specialist manager technical services group of Irby Utilities, were also welcomed to the meeting. Mr. LaPorte and Mr. Murray provided a detailed presentation discussing the self-healing AMI mesh system.

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 Ann Ellis at least two weeks in advance to be included on the agenda.





ow is the time for farmers to reap the rewards of a long and often tiring growing season. When it comes to fall harvest, there is a lot to get done in a seemingly short amount of time, as shorter days and cooler weather can create a sense of urgency. These factors, along with today's technology and large farm equipment, can lead to serious accidents.

Overhead electric lines near end rows and along roadways can also be a danger to operators of large, taller farm equipment. Safe Electricity urges farmers to keep equipment - and extensions - at least 10 feet away from power lines in



all directions and recommends the following tips to keep farmers safe:

- Know where overhead power lines are before you head out to the field and have a plan to stay far from them.
- Use a spotter when raising any equipment such as augers, grain trucks and even ladders. It can be difficult to tell how close you are to overhead power lines.

(article continued on page 10) -

Avoid the **Big Green** Box

Please stay away from pad-mounted transformers (the big green box). While safe, they are not meant for touching, climbing or playing. Pad-mounted transformers carry high voltages of electricity that serve many homes in our communities.

Parents should explain to children that these boxes are potentially dangerous, and they are not to be played on or around. Parents also need to make sure that their utility has properly locked the box. A pad mount transformer that isn't properly secured can be a serious hazard. This is a lesson that Aaron Studer learned the hard way.

Aaron and his brother Brett were playing using sticks as swords when he came upon an unlocked pad mount transformer box. He opened the box, stuck his stick inside and created a bright flash. Aaron suffered second and third degree burns to his face. Fortunately, he had no permanent scars. Please remember to keep safety in mind.

Never touch, climb or play on pad-mounted transformers. Never put fingers, sticks or other objects through cracks in the transformer.



Keep areas surrounding the padmounted transformer clear so that workers can safely maintain transformers as needed. Keep shrubs and structures at least 10 feet away from the transformer doors and 4 feet away from the sides.



Report problems. If you notice anything amiss, like an unlocked transformer or one that has been damaged, please

SAVE money through home appliance efficiency

With home appliances accounting for 13 percent of the average home's utility bill, appliance savings can have a significant effect on overall energy costs. Safe Electricity has tips to help you use your appliances efficiently:

Washers and dryers

• The biggest trick to washing clothes efficiently is to use less water and use colder water.



 Wash full loads when possible. Washing machines use about the same amount of energy regardless of load size. If you are design a smaller load adjust the size on the

doing a smaller load, adjust the size on the machine to use the appropriate amount of water.

- Do not waste energy by over drying laundry. If you have a moisture-sensing option, use it.
- Use high-speed spin cycles to help remove excess water and reduce drying time.
- Use a drying rack or line dry clothes when possible.
- Clean the lint trap and the dryer vent to promote circulation and prevent fire hazards.

Refrigerators and freezers

 A refrigerator's temperature should be 37 to 40 degrees Fahrenheit. If your fridge has an attached freezer, it should be set to 5° F. A separate freezer should be kept at 0° F.



- Cover and wrap foods. Uncovered food releases moisture, which makes your fridge work harder.
- Regularly defrost your freezer. If you have
 more than a quarter of an inch of ice, it is time to defrost.

For more information on electrical safety and energy efficiency, visit EnergyEdCouncil.org.



LIKE US ON **FACEBOOK** TO STAY UP-TO-DATE!

Like your cooperative at **www.facebook.com NorthStarElectric** for outage updates during summer storms and other useful information.

New appliances

If you are in the market for a new appliance, look for the blue Energy Star label.

The label guarantees that the appliance uses at least



20 percent less energy than appliances that are not Energy Star approved. The initial cost of an Energy Star product is often more expensive, but in the long run you will realize savings through decreased energy bills. Energy Star products are tested not only for efficiency, but also for performance and features.

Dishwashers

- Air dry dishes instead of using the drying cycle.
- Use the shortest cleaning cycle possible.



 If you have a newer dishwasher

model that does not require prerinsing, take advantage of it.

Ovens

 Use a microwave when possible. Microwaves cook more quickly and use less energy than stove tops or ovens. Using a smaller toaster/ convection oven is also



a more efficient option. A smaller space to heat results in more energy saved.

 Do not frequently open the oven when it is in use. It causes warm air to escape and the temperature to decrease. Your oven has to use more energy to raise the temperature back up.

SAFETY GEAR THROUGH THE YEARS

Modern bucket trucks rumbled into the electric utility industry starting in the 1950s, but it wasn't until the late 1970s that McCullough Electric Cooperative in Brady, Texas, saw its first such vehicle.

Danny Williams, now the manager of loss control at Texas Electric Cooperatives (statewide) in Austin, was a young McCullough Electric groundman back then.

"We might have been one of the last co-ops in the state to get a bucket truck," he recalls. "Everything we did was off the wood."

Delayed adoption of such industry advancements is not unique to McCullough Electric. Common use of key safety- and productivityenhancing equipment like rubber gloves, grounding and hard hats often took decades.

Experts say many factors were at play. Humid southern summers discouraged rubber sleeves. Difficulty climbing up and over pole structures made harnesses hard to sell.

"Probably a lot of why they didn't embrace it is because they weren't trained," says Don Harbuck, senior vice president of customer success at Northwest Lineman College. "Think about it. I'm out there, and I've been working, putting poles in the ground and stringing wire for 10, 15 years, and I still have all my fingers and toes. Then somebody comes along and says, 'Wait a minute now. We can't do that the way we used to. We have to do it this way.' Yet nobody's trained them in why we have to go to the new method."

Dwight Miller, director of safety and loss control at Ohio's Electric Cooperatives (statewide/G&T) in Columbus, says, "Safety really was and still is an evolution. As principles and equipment were introduced and developed, you might see one utility adopt [them], but another 15 or 20 years pass before becoming widely used in the industry."

Take fall protection equipment. The Occupational Safety and Health Administration (OSHA) now requires employees working at heights of more than 4 feet on a pole, tower or similar structure to wear a body belt or body harness system that attaches to a pole.

But 100 years before the OSHA ruling, someone thought highclimbing linemen needed extra protection. While writing The American Lineman, an exhaustively researched look at the history of linework in the United States, Alan Drew discovered a patent drawing showing the same fall-restraint concept.

"We could not confirm they were ever produced, but it shows that they were thinking about mitigating pole falls way back in 1914," Drew says.

As daily demands and common voltages grew in the electric industry, job site dangers did as well. In the industry's infancy, employers expected workers to take risks. As a result, about one in three linemen – called "boomers" back then – died on the job, Drew notes. But companies eventually came around and "began creating safety rules and work procedures that began to save lives."

The creation of OSHA in 1971 had a big impact. But, as co-op safety experts point out, so did access to training, with a proliferation of lineman schools and programs.

As the head of training for Texas cooperatives, Williams oversees 52 training schools for 100 co-ops, municipal utilities and contractors. "You can have all the equipment in the world, but if they're not trained to operate it and operate it safely, you're back to square one."





1991-present





Robyn Sonstegard *Manager of Finance & Administration*

Staff Report

Cybersecurity

Cybersecurity is on our minds more and more here at North Star Electric. It seems we are always hearing how other businesses or individuals are falling victim to scammers. Tips for protecting our business systems are the same tips that can help our members stay safe at home. Here are a few tips for protecting your personal computer:

- Make sure you have anti-virus software installed and remember to keep it updated.
- Don't send emails containing personal information, like your date of birth or Social Security number, because that creates opportunities for others to steal your identity.
- Verify you are using a secure website when using a credit card. You can tell whether it is secure by looking for the "s" at the beginning of the website address. A secure site will

Our Society is Fueled by the Internet Did you know 91% of cyber breaches are attributable to someone clicking a link?

begin with "https://."

- **THINK** before opening an email attachment or clicking a link in any email. You should know the person sending it AND you should be expecting them to send it to you. Hackers can take over an account or mimic an email to make it look like it is from someone you know.
- Share these tips with friends and family and encourage them to be web-wise as well. The more awareness we all have, the better!

Capital credit refunds

In brighter news, on your August electric bill (received in early September), look for your capital credit refund! As you know, we are a nonprofit cooperative, and after the bills are paid, we return any excess revenue, or margin, to our memberowners. The capital credit refund you receive will be your share of more than \$538,000 being returned to members this fall. This year, your board of directors authorized the retirement of 20 percent of 2017 capital credits earned, 100 percent of the remaining unretired capital credits from 1997 and 2.5 percent of all the years in between.

Phone scams

I don't mean to be all doom-and-gloom, but please be aware of phone scams as well. We won't EVER call and ask for payment over the phone or ask for personal or financial information. Utilities across the country have customers falling victim to scams where someone calls them and threatens disconnection unless payment is made immediately, usually with a prepaid credit card. Don't give ANY information to these individuals! Please hang up and call us right away if you receive a call like this. We will spread the word to warn others.



Meet Rachel

Recently, we had an opening in our Baudette office, and we hired Rachel Krohn of Baudette to fill this position. Rachel grew up in the Williams area, so many of you on our west end are probably familiar with her (429-41-114-03, James Boes Jr.). She has a college degree in business management and has previously worked for our local tourism agency and a local bank. Please give her a warm welcome if she happens to greet you in the office or over the phone!

Annual meeting

One last item, please mark your calendars for our next annual meeting to be held the evening of Oct. 5 at the Lake of the Woods School in Baudette. Planning for this event is under way, so stay tuned to next month's *Enlightener* for more information!

LED lighting rebate form

ENERGY STAR[®] bulbs highly recommended

(Rebates will not exceed 50 percent of purchase price)

Complete this form, attach a copy of your purchase receipt and mail to: North Star Electric Cooperative, P.O. Box 719, Baudette, MN 56623 Attn: Wayne

(Rebates will be in the form of a credit on your electric account)

Name:		
Address:		
City:	State: Zip:	
Phone #:	Other Phone #:	
North Star Electric account number:		
Name of retailer:		
Replacing 40-60W bulb:	(<i>\$4/bulb rebate)</i> Number of bulbs:	
Replacing 75-100W bulb:	(<i>\$8/bulb rebate)</i> Number of bulbs:	



Current electrical ínspectors

State law requires that every new electrical installation in any construction, remodeling, replacement or repair shall file a certificate for inspection and be inspected by a Minnesota electrical inspector. For more information, go to Minnesota Department of Labor and Industries website (**dli.mn.gov**) and go to the electrical page.

- Lake of the Woods, St. Louis and Koochiching counties: Curt Collier - Email: <u>cgcollier67@gmail.com</u> Phone: (218) 966-5070 Call to set up an appointment between 7 a.m. - 8:30 a.m. (Mon. through Fri.)
- **Roseau county:** Bryan Holmes Phone: (218) 686-1413 Call to set up an appointment between 7 a.m. - 8:30 a.m. (Mon. through Fri.)

Energy saving comparison

(Incandescent vs. LED light bulbs)

Dec 12-1

Incandescent	LED	
100-watt	15-watt	
8 hours/day	8 hours/day	
31 days/month	31 days/month	
Equals 24,800 watts (24.8 kWh)	Equals 3,720 watts (3.7 kWh)	
At 12.2 cents/ kWh + 6.875% sales tax	At 12.2 cents/ kWh + 6.875% sales tax	
Equals \$ <u>3.23</u> per month	Equals \$ <u>0.48</u> per month	
Savings per bulb per month		
with LED = 52.15		
Cost of LED bulb after rebate = \$4 (at either North Star Electric Cooperative office)		

If you know of any other energy-saving device that will pay for itself this quickly, please let North Star know about it and we will have it in a future Enlightener.



Problems paying your electric bill? Energy assistance may be available!

If you are receiving a low income or are 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 Social Services 206 8th Ave. SE, Suite 200 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. Grand Rapids, MN 55744-3984 Toll free 877-687-1163 Direct 218-999-0800 Fax 218-999-0220

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

Think SAFETY as your student moves into the dorm

It's the time of year when college campuses are preparing for students to move all of their worldly possessions into their home away from home - the dorm! While this is an exciting time for the students, it can be a nerve-racking time for parents. Safe Electricity reminds parents and students to keep electrical safety in mind.

- Don't overload outlets, extension cords or power strips.
- Use power strips with overcurrent protectors. This will shut off the power if there is too much power being drawn.
- Only purchase and use electrical products tested for safety. Some common approved safety labels include UL, CSA and MET.
- Keep all electrical appliances and cords safely away from bedding, curtains, papers and other flammable material.
- Make sure outlets around sinks are equipped with ground fault circuit interrupters (GFCIs) before use. If they are not, contact the resident assistant, camping housing staff or landlord.



- Unplug small appliances when not in use and all electronics when away for extended periods.
- Always use microwave-safe containers. Glass, ceramic containers and plastics labeled "microwave-safe" should always be used. Metal and aluminum foil can damage the microwave or start a fire. If the microwave is damaged in any way, do not use it.
- Never disable a smoke detector, and never ignore a fire alarm or assume it is a drill. Every time a fire alarm sounds, residents should calmly and quickly follow practiced procedures and immediately exit the building.

When planning to move into a shared space like a dorm or university housing, Bob Wilczynski, assistant director of housing at the University of Illinois has a few insights. "Communicate with your roommates before shopping for items for the room. Oftentimes when there is no communication, rooms end up with multiple refrigerators and microwaves, which can lead to a circuit overload in a small space."

Wilczynski adds that you should check with your university's housing department on their specific housing laws. Many colleges across the U.S. ban cooking appliances from on-campus housing, including hot plates, coffee makers and microwaves. Many of these institutions provide a designated area for the use of these products. For more information on dorm safety, please visit **SafeElectricity.org**.



(article continued from page 4) -

• Know what to do and have a plan if you come into contact with an overhead power line. Do not leave the vehicle until utility workers have cut off electricity and

confirmed that it is safe to exit the vehicle. Know what to do in the rare event the equipment catches fire!

- Always lower portable augers or elevators to their lowest possible level – under 14 feet – before moving or transporting them. Wind, uneven ground, shifting weight or other conditions can make it difficult to control raised equipment.
- Never try to move a power line to clear a path. Power lines start to sag over time, bringing them closer to farmers and others who need to avoid them. Contact your utility to repair sagging power lines.

For more information on electrical farm safety, visit **SafeElectricity.org**.

Operation Round Up® helps local programs



he North Star Community Trust Board met July 10 to review the 33 applications, which they received requesting funding for various programs. The total amount requested was more than \$40,000. The board had about \$12,000 to work with, so it was not an easy task selecting which group would get funding and what amount they would receive.

Many local programs and organizations benefit from Operation Round Up^{*}, a voluntary member-driven fundraising program of North Star Electric Cooperative, Inc., that is designed to provide financial assistance for worthwhile projects and charities in the area. Donations are given to organizations to help make the area a more pleasant and safe place to live.

All funds for Operation Round Up are contributed by the member-owners of North Star Electric, and the money is placed into a trust fund that is separate from electric accounts. The trust is administered by its own board of directors comprised of people from across the area.

2018 recipients



Operation Round Up - Baudette

Front row: Sandy Johnson, Lake of the Woods Food Shelf; Gretchen Thompson, North Star Electric Community Trust Board. Second row: Cindy Hamilton, Lake of the Woods Art Guild; Tim Anacabe, Northwest Community Action, Inc.; Margie Sporlein, North Star Electric Community Trust Board; Ann Ellis, North Star Electric Cooperative general manager.



Operation Round Up - Littlefork

Front row: Ann Ellis, North Star Electric Cooperative general manager, Trisha Wherley, LF/BF Elementary Special Ed.; Sonja Pelland, Littlefork Ambulance; Pat Bjorum, Servants of Shelter, Mary Ellen Lehman, North Star Electric Community Trust Board; Linda Boelk, Littlefork WELCA. Second row: Frank Edwards, Voyageurs Area Council (Boy Scouts); Jayne Zook, Rainy River First Responders; Loren Lehman, Littlefork Fire Department; Mary Jo Winkel, Littlefork Lutheran Quilters; Karina McLellan, Falls Hunger Coalition; Pastor Andy, Littlefork Lutheran Church. Operation Round Up directors are appointed by North Star's board members and must be members of the cooperative. The

cooperative's general manager is a nonvoting member of the board.

Organizations from the area may apply for a donation from the Operation Round Up Trust. The applicant must be charitable in nature and be working to meet a need in our area. The Operation Round Up board meets twice a year and decides if an application meets the guidelines of the trust and if funds are available.

If a member chooses to be part of Operation Round Up, their bill is "rounded up" to the next highest dollar (251-25-011-05, Mark Pierce). For example, if a bill is \$96.47, the computer will round up the bill to \$97. The additional 53 cents will be placed in the trust and distributed to local charitable and community-based programs.

About 80 percent of North Star's members have chosen to participate in Operation Round Up, and it is expected that contributions will be about \$18,700 each year. That money goes right back into our community.

The average annual contribution from a member is about \$6. The most that could be contributed in a year by a member is \$11.88 (12 months x 99 cents).

If a member of North Star Electric or a nonmember of the cooperative would like to make an additional contribution, please call our office.

At the July meeting, \$9,234 in Operation Round Up funds were distributed to various qualifying programs and organizations throughout the area, including:

Lake of the Woods Food Shelf	Food for hunger
Falls Hunger Coalition	Hunger relief
Servants of Shelter Koochiching	
County	Shelter service
Lake of the Woods School	Backpack program
Northwest Community Action, Inc	Home respite care
LSS Senior Nutrition Program	Health meals for frail/low income
Littlefork Lutheran Church	Purchase AED
Littlefork Community Center	Replace refrigerator
Big Falls EMS	CPR classes
Voyageurs Area Council (Boy Scouts)	Scouting programs
Rainy River First Responders	Radio and diagnostic equipment
Wabanica Church Quilters	Providing quilts for people in need
Lake of the Woods Women of Today	Girls rock the capitol 2019
Lake of the Woods Little Brother/Little	Sister Event sponsor
True Friends	Financial assistance for low income
Littlefork/Big Falls Elementary Special	EdClassroom necessities
Kindred Family Focus	Kindred care for foster families
Littlefork WELCA	Foster care comfort bags
Littlefork Lutheran Quilters	Quilting from the heart
Littlefork Fire Department	Pressure washer
Littlefork Ambulance	Pager/portable 800 radios
Pequana Playhouse	Children's theater Cinderella
Lake of the Woods Art Guild	Art supplies for affordable classrooms



Air-source heat pumps

How do they work?

Unlike a furnace, an air-source heat pump doesn't burn fuel to make heat. It simply uses electricity to move heat from one place to another. Think of an air-source heat pump as a heat transporter constantly moving warm air from one place to another, to where it's needed or not needed, depending on the season. Even cold winter air contains some heat. When it's cold outside, a heat pump extracts this outside heat and transfers it inside. When it's warm outside, it reverses directions and acts like an air conditioner, removing heat from your home.



Contact Wayne or Kevin at 888-634-2202 for more information.

Benefits

- A single system heats and cools your home for about nine months of the year.
- Air-source heat pumps are energy efficient because they move heat instead of generating it. The system delivers up to three times more energy than the electricity it consumes.
- Air-source heat pumps are typically simple to install and require little maintenance.
- Installation costs are as low as \$2,500.
- Can be on off-peak meter if you already have off-peak.
- **BIG REBATES** (typical rebate is \$750 for qualifying air-source heat pump)

Applications

Standard air-source heat pump

A standard air-source heat pump is a self-contained unit that uses existing ductwork to both heat and cool. The system has two main components: an outdoor compressor unit and an indoor air handling unit. The two units are linked with refrigerant tubing and a connected electric supply wire.

Ductless mini-split heat pump

A mini-split heat pump is an economical and efficient option for homes without an existing ducted system or when adding ductwork may be impractical or too expensive. Similar to a standard air-source heat pump, a compressor unit is placed outside your home and is connected to an indoor unit by small cables and a refrigerant line. The indoor unit is typically mounted high on the wall of the room and can be preset to run automatically or be adjusted by a remote control.

Price difference in heating fuels per million Btus of heat



*Note: Outside temperatures fluctuate, affecting the heat pump's efficiency. Efficiency and price per million Btus is estimated at 47 degrees F. Need additional heat like plenum heater in winter.