Traverse Electric
A Touchstone Energy® Cooperative

May 2018 Vol. 19 No. 1

Cooperative Connections

Energy Upgrades for a Happier Home

Page 8

New Appliance Purchasing Tips

Page 12

Safety Above All Else

Joel Janorschke, General Manager
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"Safety" is a universal word that is mentioned often and used loosely. Communities large and small as well as companies across all industries are committed to safety. Sports leagues, at every level, take safety seriously. Unfortunately, when it really counts, steps to keep the public, workers, athletes and loved ones safe are often ignored in the interest of expediency or convenience.

However, safety is a serious issue, especially when it comes to electrical safety. For Traverse Electric, it's the No. 1 priority. This is not empty talk. Over time, Traverse Electric has created a culture of safety by putting our employees' safety and that of the community above all else. At its essence, Traverse Electric's mission is to provide safe, affordable and reliable electricity to its member-owners. At the end of the day, we strive to deliver affordable and reliable electricity to our member-owners, but equally important, we want to return our workers home safely to their loved ones. To do this requires ongoing focus, dedication and vigilance.

Following leading national safety standards

Working with electricity is an inherently dangerous job, especially for lineworkers. Traverse Electric has a safety team whose focus is keeping employees and the community safe around electricity. We established and follow safety protocols based on leading national safety practices for the utility industry. We require our lineworkers to wear specialized equipment when working next to or with power lines. There are specific protocols that our lineworkers follow when dealing with electricity. Our safety team has regular meetings where they discuss upcoming projects from a safety perspective. They monitor and track near-misses of accidents in order to understand them, share "lessons learned" and improve in the future.

Over time, Traverse Electric has created a culture of safety by putting our employees' safety and that of the community above all else.

As importantly, we encourage all of our crews to speak up and hold each other accountable for safety. By cultivating a culture of openness and transparency, we promote problem-solving with regard to safety, rather than defaulting to a blame game. We examine the information and data gleaned from near-misses and accident reports to discern patterns and use safety metrics to improve in those areas where we have fallen short. As appropriate, we brief contractors on our safety protocols and set expectations for their engagement.

Keeping the community safe

Because we live and work in the community we serve, we care about our neighbors. Traverse Electric conducts electrical safety demonstrations in schools and for community events.

May is National Electrical Safety Month. According to the Electrical Safety Foundation, each year thousands of people in the United States are critically injured and electrocuted as a result of electrical fires, accidents and electrocution in their own homes. Many of these accidents are preventable. There is much you can do to keep yourself and your community safe around electricity.

Don't attempt electrical DIY projects or overload your outlets. Report downed power lines, unlocked substations or padmount transformers that look amiss. Contact Traverse Electric for additional electrical safety tips. If you would like us to provide a safety demonstration at your school or community event, please contact Dale Schwagel. Be mindful when it comes to electrical safety. Pause and take the extra time to plug into safety.

Traverse Electric Cooperative Connections

(USPS No. 018-903)

In case of a power outage call 1-800-927-5443

Traverse Electric Cooperative Connections is published monthly by Traverse Electric Cooperative, PO Box 66, 1618 Broadway, Wheaton, MN, 56296 for its members. Families subscribe to Traverse Electric Cooperative Connections as part of their electric cooperative membership. Traverse Electric Cooperative Connections' purpose is to provide reliable, helpful information to electric cooperative members on matters pertaining to rural electrification and better rural living.

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TRAVERSE ELECTRIC COOPERATIVE, INC.
A Touchstone Energy® Cooperative

Current Addresses Missing for These Former Consumers

We have capital credit checks for these people, but they were returned to us marked unknown. Please call the office at 1-800-927-5443 if you know their new address. Thanks.

Name	Address	Years On
Robert Bartelson	New Town, ND	1999-2007
Vicki Cain	Norcross, MN	2000-2003
Roger Fritz	Nashua, MN	2000-2001
Terry Larson	Alexandria, MN	2001-2002
Mark Lucas	Sisseton, SD	1999-2003
Mike Matthews	Elk River, MN	2000-2002
Jerome Nelson	Desert Hot Springs, CA	1973-2010
Tammy Pillatzke/Tom Poppler	Hewitt, MN	2001-2004
Harlan Plagge	Montevideo, MN	2000-2010
Henry Wilberts	Long Prairie, MN	2000-2008
Robert Winger	Stillwater, MN	2000-2002
Tom Wolfe	Sisseton, SD	2000-2004

Member Comments

Thank you for the $25 bill credit that we won at the district meeting. Thanks for the great job that each of you do at Traverse Electric!!
Jerome and Nina Borgen, New Effington, SD

Thank the guys for so promptly fixing our outside light. The new light shines over the house and lights up the flag!
Sharon Braun, Nashua, MN

Thank you so much for the "In the Country" wall decoration that I won at the annual meeting. Thanks too for the tasty meal. We appreciate your fast service when we need you!
Ted Horning, Chokio, MN

IN CASE OF OUTAGE

1ST	Check the fuses or breakers in your home or building in which you do not have power.
2ND	Check your breaker below your meter on the yard pole. Some residential members may not have breakers.
3RD	If you still do not have power, call your neighbor to check if their electricity is also off.
4TH	Call immediately; do not wait for your neighbor to call in the outage.
5TH	Call Traverse Electric Cooperative at 1-800-927-5443.

Fly Drones Safely

Drones are unmanned aircraft systems (UAS) that are increasingly being used recreationally and professionally. As a result, there is an increasing need to ensure these craft are flown safely and within regulations.

Keep drones away from overhead power lines. If a drone flies into a power line, it could cause power outages. It could also result in downed lines, which pose a dangerous electrical safety hazard. The falling debris could also endanger public safety.

Touching a downed line or anything it has fallen on, like a fence or a tree limb, could get you injured or even killed. Stay away and instruct others to do the same. If you come across downed power lines, call 911 to notify emergency personnel and the utility immediately.

Follow federal guidelines for registering your drone or getting business approval, and be aware of and abide by community and state-specific legislation. Also, keep these FAA safety guidelines in mind:

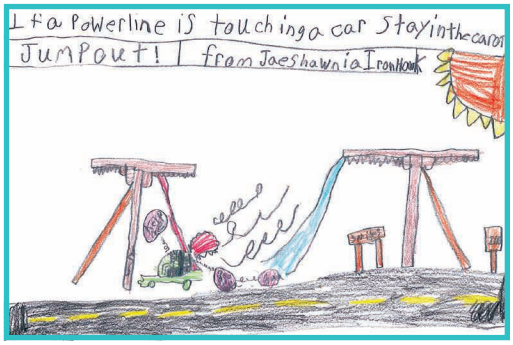
- Before flying the drone, check it for damage. Have a damaged drone repaired before use.
- Never fly drones higher than 400 feet.
- Do not fly the drone beyond your line of sight.
- Do not fly near airports, manned aircraft, stadiums or people.
- Do not fly for commercial purposes, unless specifically authorized by the FAA.
- Do not fly in bad weather conditions, such as low visibility or high winds.
- Never fly your drone recklessly. You could be fined for endangering people or other aircraft.

Source: safeelectricity.org

KIDS CORNER SAFETY POSTER

"If a power line is touching a car, stay in the car or jump out!"

JaeShawnia Iron Hawk, Second-grader at Dupree Public School



JaeShawnia is the daughter of Lindsey Flying By, Dupree, S.D. She is a member of Moreau-Grand Electric Cooperative, Timber Lake, S.D.

Kids, send your drawing with an electrical safety tip to your local electric cooperative (address found on Page 3). If your poster is published, you'll receive a prize. All entries must include your name, age, mailing address and the names of your parents. Colored drawings are encouraged.

Comforting Casseroles

Photo courtesy: McCormick

Quesadilla Casserole

1 lb. ground beef
1/2 cup chopped onion
2 (8 oz. each) cans tomato sauce
1 (15 oz.) can black beans, drained and rinsed
1 (8-3/4 oz.) can whole kernel corn, undrained
1 (4-1/2 oz.) can chopped green chiles, undrained
2 tsp. chili powder
1 tsp. ground cumin
1 tsp. garlic, minced
1/2 tsp. oregano leaves
1/2 tsp. crushed red pepper
6 (8-inch) flour tortillas
2 cups shredded Cheddar cheese

Brown beef and onion in large skillet on medium-high heat; drain. Add tomato sauce, beans, corn and green chiles; mix well. Stir in all seasonings. Bring to boil. Reduce heat to low; simmer 5 minutes. Spread 1/2 cup of the beef mixture on bottom of 9x13-inch baking dish sprayed with no stick cooking spray. Top with 3 of the tortillas, overlapping as needed. Layer with 1/2 of the remaining beef mixture and 1/2 of the cheese. Repeat with remaining tortillas, beef mixture and cheese. Bake at 350°F. for 15 minutes or until heated through. Let stand 5 minutes before serving. Makes 8 servings.

Nutritional Information Per Serving: Calories 391, Total Fat 19g, Sodium 950mg, Cholesterol 63mg, Carbohydrates 31g, Protein 24g, Dietary Fiber 4g

Pictured, Cooperative Connections

Ham and Cauliflower Casserole

4 cups chopped fresh cauliflower
1/4 cup butter, cubed
1/3 cup flour
2 cups milk
1 cup shredded Cheddar cheese
1/2 cup sour cream
2 cups cubed cooked ham
1 (4 oz.) can mushrooms, drained

Topping:

1 cup soft bread crumbs
1 T. butter, melted

In a large saucepan, cover cauliflower with water. Bring to a boil. Reduce heat; cover and simmer for 5 to 10 minutes or until tender. Meanwhile, in another large saucepan, melt butter; stir in flour until smooth. Gradually add milk. Bring to a boil; cook and stir until thickened. Remove from heat. Stir in cheese and sour cream until melted. Drain cauliflower. In large bowl, combine cauliflower, ham and mushrooms. Add cheese sauce and toss to coat. Transfer to a greased 2-quart baking dish. Combine topping ingredients; sprinkle over casserole. Bake, uncovered, at 350°F. for 40 to 45 minutes.

Rebecca Hauser, Tripp, S.D.

Chicken Crescent Casserole

4 cups cubed cooked chicken or turkey
1 can cream of chicken soup
1 can cream of celery soup
1 (8 oz.) can sliced water chestnuts, drained
1 (4 oz.) can mushroom stems and pieces, drained
2/3 cup mayonnaise
1/2 cup chopped celery
1/2 cup chopped onion
1/2 cup sour cream
1 (8 oz.) can refrigerated crescent rolls
6 oz. shredded Swiss or American cheese
2 to 4 T. butter, melted

In a large saucepan, combine first 9 ingredients. Cook over medium heat until hot and bubbly. Pour into an ungreased 12x8-inch baking dish. Place rolls on top of hot chicken mixture. Combine cheese and butter; spread over rolls. Bake at 350°F. for 20 to 25 minutes or until crust is deep golden brown. ***Variation:*** *Substitute 4 cups of imitation crabmeat for the chicken or turkey and 1 can cream of shrimp soup in place of the cream of chicken soup.*

Mary Crane, Mitchell, S.D.

Jalapeno Tater Tot Casserole

1 (2 lb.) bag tater tots
2 (8 oz.) pkgs. cream cheese, softened
1 cup sour cream
2 cups Mexican Cheddar jack shredded cheese, divided
1 lb. bacon, cooked and crumbled
6 jalapeno peppers, deseeded and diced
6 green onions, thinly sliced

Line a casserole dish with tater tots. Bake at 425°F. for 15 minutes. In a medium bowl, combine cream cheese, sour cream, 1 cup Cheddar jack cheese, bacon (reserve some for topping), diced jalapeno peppers and sliced onions (save a few for the top). Stir to thoroughly combine ingredients. Spread the jalapeno mixture over the tater tots. Top with remaining cup of cheese. Sprinkle with reserved bacon pieces and onion. Bake for 20 minutes. Serves 12.

Sandi Litschewski, Spearfish, S.D.

Please send your favorite dairy, dessert and salad recipes to your local electric cooperative (address found on Page 3).

Each recipe printed will be entered into a drawing for a prize in June 2018. All entries must include your name, mailing address, telephone number and cooperative name.

Play It Cool!

Tips To Help You Stay Comfortable This Summer

Pat Keegan
Collaborative Efficiency

Dear Pat: My energy bill was pretty high last summer. Do you have any tips for how to keep comfortable this year without breaking the bank? – Don

Dear Don: Absolutely! There are several ways to make your home more comfortable this summer. Some of the solutions are low-cost, while others require a bigger investment. In the end, you can be more comfortable and have lower energy bills this summer.

The first step is to reduce your home's solar gains – the heat energy it collects from the sun. Since most solar gains originate through your home's windows, awnings are an effective solution. They can reduce solar heat gain by as much as 65 percent on south-facing windows and 77 percent on west-facing windows.[1] You can also try less expensive solutions on the outside or inside of your windows, like reflective films and solar screens. Heavy window coverings also work and have the added benefit of reducing heat loss in winter.[2]

The first step is to reduce your home's solar gain.

Two areas that can be major sources of heat gain are skylights and attics. Reflective film or specially designed window coverings are potential solutions for skylights.[3] Attics can become extremely hot and radiate heat through the ceiling into your living space. Abundant venting through the roof, gable or eaves is one solution, but you also need adequate attic insulation.

Another important step is to seal air leaks around windows, doors, plumbing and wiring penetrations to keep warm air out and cool air in.[4]

Excess heat can also be generated inside your home – and at your expense. Here's a quick list of simple steps you can take:

- Make it a habit to turn off lights and TVs in rooms that aren't in use.
- Incandescent light bulbs generate a lot of heat. Replace them with LEDs.
- Unplug devices you aren't using, like chargers, computers, monitors and consumer electronics. Many of these use phantom power that keeps them on constantly (even when they're not in use!), which generates heat.
- Maintain appliances for peak efficiency. For example, clean your refrigerator coils.
- Lower your water heater temperature to no higher than 120 degrees Fahrenheit and your refrigerator to no lower than 38 degrees Fahrenheit. Also consider insulating your hot water pipes.
- Minimize use of your oven and don't run the dishwasher or washing machine until they are full.

Now that you've worked on keeping heat out of your home and minimizing the waste heat generated inside, let's look at how to make the inside air cooler. That starts by assessing your air conditioning (AC) system.

If you have central AC, make sure it's working efficiently. Replace the filters regularly and check to see if your supply registers are open. AC systems need to push an adequate amount of air into the supply ductwork to function properly.

If you do not have central AC, window units can be an efficient solution if they are ENERGY STAR®-certified and only used to cool part of the home, part of the time. Make sure to seal any openings around the window unit.

The least expensive way to cool yourself is air movement. A ceiling fan or portable fan can make a room feel up to 10 degrees cooler,[5] but keep in mind, fans cool people. Turn them off when you're not in the room.

If you live in an area where the night air is cool and not too humid, you can exchange your hot air for cool outdoor air by opening the windows and turning on your kitchen and bath fans. Or you can place a fan in one window to exhaust the warm air and open another window at the opposite end of the house to allow the cooler night air inside. The permanent (but more expensive) option is to install a whole-house fan.

Remember, there are several ways to keep cool and increase comfort. I hope these tips will make your summer more enjoyable than the last!

This column was co-written by Pat Keegan and Brad Thiessen of Collaborative Efficiency. For more information, please visit: www.collaborativeefficiency.com/energytips.

Footnotes

[1]Source: https://energy.gov/energysaver/energy-efficient-window-treatments

[2]Source: https://energy.gov/energysaver/energy-efficient-window-treatments

[3]Source: https://energy.gov/energysaver/windows-doors-and-skylights/skylights

[4]Source: www.cleco.com/documents/10180/0/290_EnergyConservationGuide.pdf/4b14bd34-a655-435d-9596-28f0ae1f9067

[5]Source: https://energy.gov/energysaver/appliances-and-electronics/kitchen-appliances

[6]Source: www.cleco.com/documents/10180/0/290_EnergyConservationGuide.pdf/4b14bd34-a655-435d-9596-28f0ae1f9067

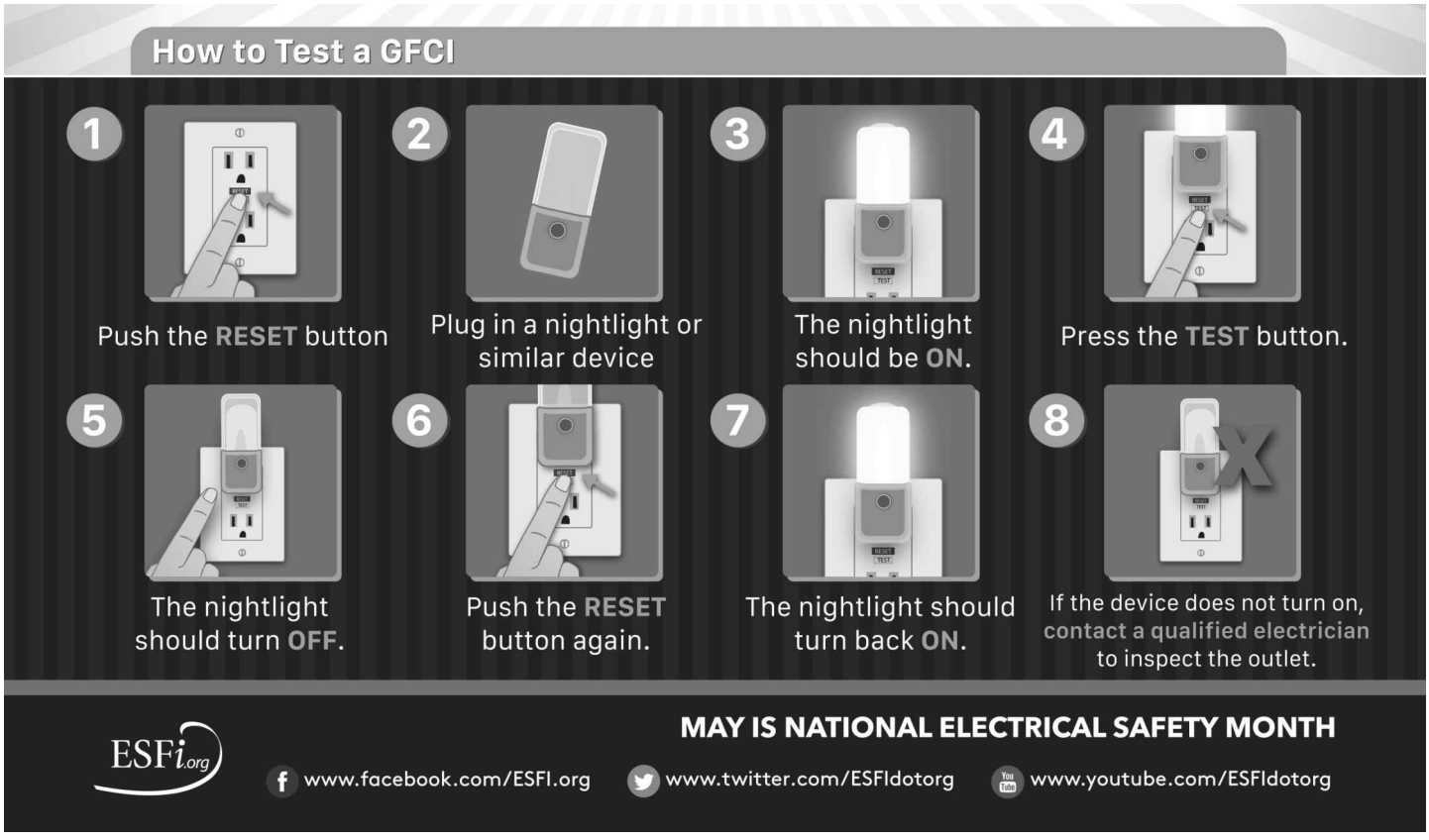
SDRE Line Superintendents Invest in Future Line Workers

The SDRE Line Superintendents Association has once again awarded their annual scholarships to students in the Power Line Construction and Maintenance program at Mitchell Technical Institute in Mitchell, S.D. Ten students received awards in March. Pictured in the back row, left to right, are Ryan Sherman, Winner; Blake Reuwsaat, Rapid City; Nicholas Hoelzel, Hitchcock; Shane Pardy, Utica; Brock Fischer, Eagle Butte; Jacob Vinson, Sturgis; Chandler Day, Webster; Carson Borer, Castlewood; and McLain Lone, Bristol. Not pictured is Brenden Ecklein, Salem. Lone received $500 from the Line Superintendents and Borer was selected for the $500 Mark and Kathy Hofer Power Line Scholarship.

All others received $400 each from the line superintendents. Also pictured, front row, left to right, are line superintendents Rob Vetch, FEM Electric Association, Ipswich; Trever Turner, Union County Electric Cooperative, Elk Point; Mark Iyotte, Cherry-Todd Electric Cooperative, Mission; Bill Brisk, Black Hills Electric Cooperative, Custer; Jared Terhark, Codington-Clark Electric Cooperative, Watertown; and Jon Christensen, Whetstone Valley Electric Cooperative, Milbank. Not pictured is Mike Kelly, Northern Electric Cooperative, Bath.

This is the 21st year that the group has awarded scholarships, totaling more than $85,000. In honor of the group's ongoing support, the Line Superintendents were awarded the 2017 Donor Legacy Award from the MTI Foundation in December.

Ten future linemen studying at Mitchell Technical Institute received scholarships from the SDRE Line Superintendents and the Hofer family.



Boosting attic insulation is one way to cut energy bills.

ENERGY UPGRADES FOR A HAPPIER HOME

Boost Your Home's Comfort And Cut Energy Use

Diane Veto Parham

Contributing Writer

Imagine your house is not just the place you sleep, eat and store your stuff, but more like a part of your family, with its own unique needs. Ignore those needs and both you and your home suffer the consequences. But, pay closer attention, and you can find ways to enjoy a more pleasant – and efficient – living environment.

"It's amazing how much comfort you can provide by spending a few dollars," says Brian Sloboda, program manager for the National Rural Electric Cooperative Association, Arlington, Va., "You're going to increase your quality of life."

Knowing what your house needs is job one. Your heating-and-air system, your appliances, your insulation and even your lightbulbs can affect not only how your home is behaving, but also how much you're paying to keep it all running.

Need some ideas to get started? Here are seven smart ways to invest in a comfortable and energy-efficient house.

1. Get a professional home-energy audit

Cost: About $250 to $650.

Benefit: Making recommended improvements can cut energy use 10 percent to 40 percent.

DIY potential: None; use a certified professional.

A whole-house energy audit will take a few hours and evaluate household energy use, how the heating-and-air system is functioning and whether there's adequate insulation. Using diagnostic tools like a blower door and a thermal imaging camera, an auditor tests for leaks in ductwork and around windows and doors, plus other problems with the home's "envelope" – essentially, the parts of the house that separate its insulated, air-conditioned interior from unconditioned spaces like attics and crawlspaces.

2. Seal your house

Cost: Ranges from a few dollars for weather stripping and caulk to thousands of dollars for whole-house weatherization.

Benefit: Annual energy savings of 10 percent to 20 percent, according to the U.S. Department of Energy.

DIY potential: You can do simple tasks; professionals should handle large-scale insulation or ductwork improvements

"Make sure your house is well insulated and well sealed," says Alan Shedd, director of energy solutions for Touchstone Energy® Cooperatives. A handy do-it-yourselfer can tackle simple sealing tasks. Feel for drafts or look for cracks and gaps around windows and doors, around electrical outlets and light fixtures, where pipes and wires penetrate walls, floors or ceilings, around fireplaces and where ceilings meet walls. Basic DIY materials like weather-stripping tape, tubes of caulk and spray foam are available at home-improvement stores.

If you invested in a professional home-energy audit, you know exactly where air is leaking and what repairs are needed. For fixes outside your skill set – for example, adding insulation or repairing leaky ductwork – ask your co-op for a list of certified contractors or visit Building Performance Institute's website.

3. Replace your HVAC system

Cost: Ranges from a few thousand dollars for a single-zone, mini-split system up to tens of thousands to install a geothermal system.

Benefit: Upgrading to ENERGY STAR®-certified heating and cooling equipment can deliver annual energy-bill savings of 10 percent to 30 percent, according to the Department of Energy; geothermal systems can cut energy use for heating and cooling by 25 percent to 50 percent.

DIY potential: You'll need a trained professional to properly size and install a system for your needs.

Heating and cooling account for about half of typical household energy costs. Minimize those expenses by upgrading to a more efficient system when your current unit ages out. Expect an HVAC system to last, on average, about 10 to 12 years.

Air-source heat pumps, which draw heat from the air and move it indoors or outdoors as needed, provide efficient heating and cooling from a single unit. Ground-source (geothermal) heat pumps are the most efficient, albeit more expensive, heating-and-cooling option. Drawing heat from stable ground temperatures rather than fluctuating air temperatures, geothermal heat pumps use about 25 percent to 50 percent less electricity than conventional HVAC systems.

Geothermal is "the gold standard" for peak efficiency in heating and cooling, Shedd says, where the property can accommodate an extensive vertical or horizontal underground-loop system.

For any heating-and-cooling system, proper installation is essential to reap full benefits of energy-efficient performance. A certified HVAC contractor will do a load calculation to determine what size HVAC unit is right for your house and whether any special adjustments are necessary for your location.

4. Modernize major appliances

Cost: Hundreds of dollars for major appliances; zero dollars for unplugging energy hogs that are not in use.

Benefit: Save anywhere from a few dollars up to hundreds of dollars a year.

DIY potential: You'll need a professional to install some appliances, but you can unplug small appliances around the house in minutes.

Among your appliances, the two biggest energy users are water heaters and refrigerators, which are nearly always on duty. After that, you might be surprised by another energy hog: consumer electronics.

"The fastest-growing user of electricity in your house is all the things you plug in," Shedd says.

5. Boost your attic insulation

Cost: National averages range from $1,300 to $2,000, depending on home location, attic size and type of insulation.

Benefit: Reduce your energy bills by keeping heated and cooled air in your living space.

DIY potential: Handy homeowners can add insulation with proper tools, safety gear and precautions, but it's a job best left to professionals.

It's all about the R-value. That's the number assigned to insulating materials based on how well they resist the transfer of heat. Higher numbers mean more resistance to heat flow and more effective insulation. For attics, recommended R-values range from 30 in warmer climates to 60 in colder regions. To learn what's recommended for your climate zone, consult the R-values map at www.energystar.gov/index.cfm?c=home_sealing.hm_improvement_insulation_table.

Older homes are more likely to lack enough attic insulation for peak efficiency, because "energy-efficiency standards keep going up and getting higher," Shedd says. "Thirty years ago, R-19 was standard practice."

What you spend to upgrade your attic insulation will depend on multiple variables, including the type of insulation – for example, fiberglass or cellulose, batts or loose fill – as well as the size of the attic space and the contractor's labor costs.

6. Switch to efficient light bulbs

Cost: A few dollars per bulb .

Benefit: Save about $50 per year by replacing 15 traditional incandescent bulbs with more efficient energy-saving light bulbs.

DIY potential: You can handle this.

You're going to change your light bulbs sooner or later. When you do, why not invest in bulbs that will save energy and create the lighting environment you want in your home?

When you're shopping, pay attention to lumens – the brightness of the bulb – rather than watts, which indicate how much energy it uses. Packaging often refers to the wattage a new bulb can replace – for example, an energy-saving 800-lumen bulb can replace a 60-watt bulb. Look at the lighting-facts label for details about the bulb's lumens, estimated yearly energy cost and lifespan and the lighting color. ENERGY STAR®-certified bulbs can deliver the brightness you want while using 70 percent to 90 percent less energy.

7. Install smart thermostats

Cost: Products range from about $170 to $250.

Benefit: Manufacturers estimate annual savings of 9 percent to 23 percent on heating and cooling costs.

DIY potential: Video and written instructions can guide you through installation and Wi-Fi set-up.

Early versions of programmable thermostats were hailed as tools that would help homeowners save energy and money and increase home comfort, all by tailoring thermostat settings to daytime, nighttime, weekend and vacation schedules. And they did – but only for those who bothered to manually program them.

Thanks to the internet connection and remote-control options, smart thermostats are ideal for use in electric cooperative load-control programs. Across the country, cooperatives are testing new programs that use this technology to help members save energy and help co-ops reduce demand.

Change Habits to Beat the Peak

As warmer weather sets in, our thoughts on keeping the house comfortable switch from heating to cooling. But as temperatures rise and air conditioners are switched on, looking for ways to improve energy efficiency at home can help you and Traverse Electric reduce demand, saving energy and money.

Making small adjustments in when, where and how you use electricity won't only help control your energy costs, but it can also help keep temperatures in your home more pleasant on sultry days.

Housework hiatus

Avoiding peak energy costs is a good reason to put some chores on hold, at least until power demand dips. Consider some of the jobs one kilowatt hour (kWh) of electricity can do before you use it:

- Wash three loads of laundry
- Complete one dryer cycle
- Vacuum rugs in two average homes
- Iron five shirts
- Run three cycles in a loaded dishwasher

All of these activities can be done outside of peak demand periods, also known as peak hours.

Love 78

Your heating, ventilation and air conditioning (HVAC) system or heat pump can play a huge part in controlling your energy use year-round, even if family comfort is a top priority.

At 78 degrees, most people are comfortable outside, so why not indoors? Most people aren't sensitive enough to notice much of a difference in air temperature whether the thermostat is set at 73 or raised to 78. But the closer your air conditioner or heat pump setting is to the outdoor temperature, the less your unit will run.

Each degree of temperature difference represents a percentage of the total cooling load. That means that when temperatures are in the high 80s, you could reduce your cooling demand by 10 percent to 15 percent for each degree above 75 degrees.

Fans offer an economical alternative to air conditioning on mild days and they can pitch in for comfort as temperatures climb. The key is evaporative cooling. At lower settings, a little air blowing across a room helps to bring down humidity levels.

When used in conjunction with your cooling system, set ceiling fans to blow air downward instead of pulling warmer air upward to get the most value in your cooling zone. Table and ceiling fans will offer more comfort if used to circulate air through areas where you are most active. You'll get a wind chill effect that will make you feel just a little cooler.

Central air conditioning can use as much as one kWh of electricity for each 12 minute cycle of cooling. A ceiling fan can operate for about 13 hours on the same amount of electricity, while a floor or table fan, depending on size, might run for 10 hours per kWh of power. Turn off fans when you leave a room, because they cool people, not space.

Kitchen comfort

When it comes to heat and humidity, changing your kitchen activities presents a wellspring of opportunities to reduce your household energy demand throughout the day.

Your stove represents the modern hearth and all the things that make the kitchen a favorite gathering place in winter can help send your electric meter into overdrive from late spring through early fall.

According to researchers at North Carolina State University, in Raleigh, cooking dinner for a family of four on an electric range releases about 20 ounces of water vapor into the air and that amount can triple with a gas range.

Appliances on your countertops or stashed in your pantry could keep you cooler and use less energy. Microwaves use about 60 percent as much energy as full-size ovens and a toaster oven or induction cooker consumes about half as much power. Because they are generally designed to heat food more efficiently in less space, the surface areas available for heating are smaller, reducing waste heat surfaces and keeping kitchens cooler.

Share the space

In simpler times, families spent more time together in the same room even as they pursued different interests. Some members might read books or magazines under the light of shared lamp, while others watched television or played board games.

Today it's common for everyone to retreat to separate spaces, turn on their electronics, adjust their ceiling fans or window unit air conditioners and close their doors to cocoon in their own environments.

Getting control of your energy use to reduce your home's overall demand can be really challenging when you have to consider the entire home, so bring back family time to beat the peak.

LCD televisions generally use 60 percent as much electricity as comparably sized plasma models. One laptop computer uses about 20 percent as much power as a desktop computer and monitor. And today's home assistant devices can play music using about 17 percent of the energy on a component stereo system, or about as much power as the boom box you use on the beach.

A video game console consumes about 200 watts of power. One system pressed into service for spirited intramural competition between family members in one room uses about a third of the power of three players engaged in online games around the house.

Finish the space with energy-efficient LED fixtures for lighting, a couple sets of headphones and a few rechargeable power boosters for the family's handheld devices. You'll have a cool and fun place to spend a few hours with the family.

Source: Derrill Holly writes on cooperative issues for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

Scholarships Awarded

Traverse Electric is proud to announce the recipient of this year's $1, 000 Basin Electric scholarship.

Tana Lick of Rosholt was selected by the board of directors recently to receive the Basin Electric $1,000 scholarship. Tana is the daughter of Donald and Elizabeth Lick.

A senior at Rosholt High School, Tana is involved with many activities including FCCLA, Student Council, Band, Basketball, Track and Cross Country. Outside of school, Tana is active in her church youth group, 4-H, and spends her summers waitressing at the "R" Place restaurant in Rosholt.

Tana plans to attend SDSU in Brookings, S.,D., and pursue a nursing degree.

We wish Tana the best of luck and are happy to support her with her post-secondary education.

Benjamin Findlay of Herman, Minn., is the recipient of this year's $500 Traverse Electric scholarship.

Benjamin is the son of Gary and Rhonda Findlay and a senior at Wheaton Area High School. In high school, Benjamin participated in football, trap shooting and golf. He has been on the A Honor Roll, a member of the National Honor Society, on the student council and a AAA award recipient.

Benjamin is also active in his church youth group and in 4-H. This fall, Benjamin plans to attend NDSCS in Wahpeton, N.D., for farm management.

Traverse Electric is proud to support Ben with his future educational goals.

Describe How a Cooperative Can Build a Culture To Best Serve Its Members

Electric cooperatives supply 42 percent of the nation's distributing power lines. These cooperatives, like Basin Electric Power Cooperative, are important to rural areas. Along with providing power, they pride themselves on building cultures that best serve their members.

Non-profit electric cooperatives deserve a substantial amount of credit not only for providing power to millions of people but also being the reason rural areas have the option of electric power in the first place. In the early 1900s, electricity was only available to urban areas; however, within 10 years of President Franklin D. Roosevelt allowing rural electric cooperatives to form, the amount of U.S. farms with electricity climbed by roughly 80 percent. Since then, electric cooperatives have remained effective by making their utmost priority service rather than profits.

My local area relies heavily on electric cooperatives. For my family personally, it is Traverse Electric out of Wheaton, Minn. Profit seeking companies would rather not provide to rural areas because homes may be miles apart, which brings their revenue per line mile down significantly.

In a way, I believe that we are fortunate for having to face these circumstances. In large electric companies, only a select few can have a voice in how things are run. However, cooperatives are owned by the customers they serve and each member can vote to elect local administration and have a say in how things are run. This makes cooperatives tightly knit and ensures that each person's thoughts and concerns can be taken into account. The direct effect of this is members receiving service that best suits their individual needs: whether it be economic, social or cultural.

I believe that as long as cooperatives stay close to their core values of creating a democratic-like organization working together to meet each member's individual interests as best they can, a culture which best serves its members can be achieved.

By Tana Lick

Cooperatives are created out of a need and provide a service that for-profit companies cannot. Members own their cooperative, giving ordinary people the ability to accomplish extraordinary things while building a culture. Cooperatives are democratic and independent organizations that efficiently serve their members, community and culture.

Cooperative members help build a culture through participation. Information, education and training for members and the general public are key elements to a culture of actively engaged and loyal membership. Cooperative websites and newsletters increase cultural knowledge. Youth tours and scholarships give a clear vision of the cooperative difference to a younger culture and an incentive to participate. Energy calculators, rebates and incentive programs are examples of a cooperative culture embracing new technology. Cooperatives give us conservation, energy assistance and safety to improve our community culture.

Cooperatives increase participation and grow member ownership while giving a greater awareness of a cooperative culture and community bond. Cooperative culture requires they plan ahead to improve their service and make sure everyone receives a network of commitment, dedication and support. This cooperative culture has industrialized entire nations, increasing efficiency, speed and productivity at every level while supplying our most basic needs. I am proud to be a part of this cooperative culture. Thank you for your consideration.

By Benjamin Findlay

Make, Model, Capacity, Oh My!

Tips for Purchasing New Appliances

By Paul Wesslund

NRECA Contributing Writer

The No. 1 problem for homeowners is trying to determine which of the things actually presents value.

The Sloboda family needed a new refrigerator so Brian volunteered to do the shopping. After all, he's a national expert on electric appliances.

He came home frustrated. There were just too many choices, even for the guy whose job title is program and product line manager for energy utilization, delivery, and energy efficiency at the National Rural Electric Cooperative Association, Arlington, Va.

"Just buy whatever you want," he told his wife, Sami Jo.

He finally got to use his in-depth knowledge when he looked over the model that Sami Jo brought home.

"Why didn't you get the version that has a camera inside, so you can use your smartphone in the grocery store to see if we need more milk?" he asked.

"Because it costs $500 more," she said.

That, said Brian, was a good reason.

That's the kind of reasoning we're all going to be doing in the coming months and years as we grapple with the newest trend in appliances – connection to the internet.

"The No. 1 problem for homeowners is trying to determine which of the things actually presents value," says Sloboda. For example, when you're on vacation you can use your smartphone to check whether you've left the oven on or the garage door open.

Sounds nice, but is it worth it?

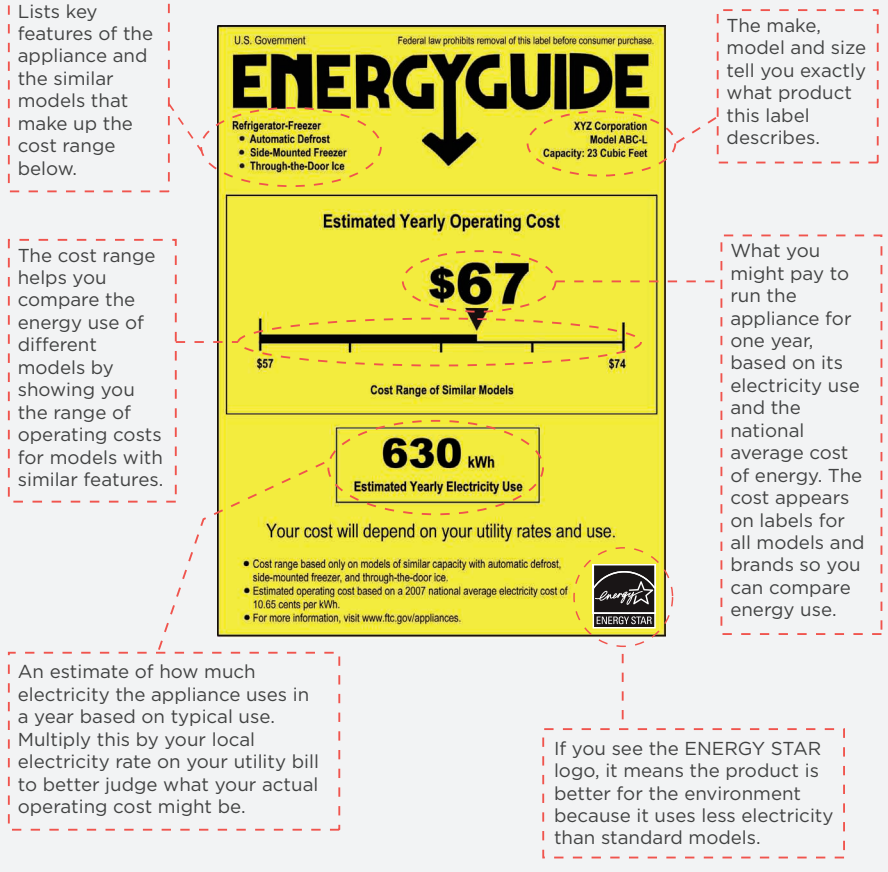
"There's a Crock Pot® app," he says. "Does that have value to you? It might if you use a Crock Pot® a lot."

"There are infinite possibilities," says Sloboda. "They sound nice when you first hear about them, but you have to remember you are paying more for those features."

Web-connected appliances could also offer online diagnostics. There might not be strong everyday reasons for a washing machine to be hooked into cyberspace, but

Understanding the ENERGYGUIDE Label

The ENERGYGUIDE label is a great tool that helps consumers compare the energy use and costs of new appliances. Use the sample below to better understand how to use the information found on the label.



Source: Federal Trade Commission

Home owners have a wide array of choices when it comes time to upgrade major energy-using appliances.

if it broke, the manufacturer could log in to figure out what's wrong. That could help decide the best way to repair or replace the equipment. But is it worth the extra cost?

"It's a good feature," says Sloboda, "but one you're only going to use when the appliance breaks."

If you're longing for lower-tech help in decision-making, look to the yellow and black U.S. Department of Energy's EnergyGuide label on each appliance.

"It's one of the single greatest pieces of information that you can find when you buy an appliance," says Sloboda.

He says the most useful info is the big dollar figure right in the middle of the label, showing what it will cost to use that appliance for a year.

Sloboda cautions that the number doesn't tell you exactly what you will pay because it doesn't use your local utility's kilowatt hour rate. But it's a perfect way to compare appliances because every appliance's label is based on the same national average electric rate.

"You can stand in that aisle looking at all the washing machines and you can scan the entire row and narrow your options down from a dozen," says Sloboda, "down to the three or four that use the least amount of money."

Taking charge of your appliances

Other especially useful parts of the label, he says, include the lower right corner – if you see an ENERGY STAR® logo it means the appliance will use less energy than one without. He also singles out the upper right corner that lists the manufacturer and model number, which you can use for more detailed comparisons with other models.

Sloboda also advises to pay attention to the age of your major energy-using appliances. In addition to dramatic energy efficiency advances over the past several years, motors start degrading in refrigerators and in heating and air conditioning systems. He says to consider upgrading air conditioners and heat pumps older than 10 years and refrigerators older than eight years.

Pay attention to the age of your major energy-using appliances.

The Department of Energy offers a handy way to check whether it's time to replace your refrigerator: visit the EnergyStar.gov website and in the search box, type "flip your fridge calculator." You'll find a link to a page where you can enter your type of refrigerator and its age to calculate how much you'd save buying a new one.

All these options mean more decisions for consumers. But help is on the way.

Sloboda says that electric co-ops are working with two national laboratories to study the most useful ways to connect appliances with the internet and with the utilities that provide the electricity. He says that over the next two years the study will report on how consumers can more easily make decisions on how to use appliances and even how to enhance cybersecurity for the growing number of internet-connected devices in the home.

Sloboda says the aim of the study is "to understand what the value of internet-connected devices is to the consumer. Then the manufacturers can start to build products that the consumer wants."

The study will also look for futuristic-sounding ways that co-op members can sign up for optional utility programs to help homeowners decide how they want to use electricity.

"The appliances would be networked together and they would talk to one another," says Sloboda. "In a very advanced scenario, the home could actually reconfigure the way appliances are being used depending on occupancy of the home at the moment and the weather conditions."

That setup could even let homeowners decide if they are a person who wants to save as much energy and money as possible or if they would rather the house be warmer or cooler.

"They won't have to figure out if they want to set the thermostat back," says Sloboda. "The homeowner would tell the system whether they wanted to maximize comfort or maximize savings, then the home would communicate to the utility. That way it won't be the utility controlling the system, it won't be the appliance manufacturer, but it will be the occupant of the house who is making the decisions."

Paul Wesslund writes on cooperative issues for the National Rural Electric Cooperative Association, the Arlington, Va.-based service arm of the nation's 900-plus consumer-owned, not-for-profit electric cooperatives.

Installing fiberglass batting should be done wearing gloves and a mask.

WHAT'S IN YOUR ATTIC?

Diane Veto Parham
Contributing Writer

A peek in most attics will reveal the tried-and true materials commonly used to insulate homes: fiberglass, cellulose, mineral wool or spray-foam insulation. Regardless of type, the keys to effective insulation are the same – getting the right R-value for your home's insulation, proper installation and air sealing.

Fiberglass: This is the insulation that looks like cotton candy, commonly seen in long strips – called batts or rolls – between wall studs and ceiling joists. It might be pink, white or yellow, and it also comes in a loose-fill form, often blown into attic spaces. Made of tiny glass fibers, it can be uncomfortable to touch; wear gloves and a mask while handling it.

Cellulose: Grayish in color, cellulose is a loose-fill insulation that can be blown in between attic joists. It chemically is treated to be resistant to moisture, fire, insects and nesting rodents. Over time, it can settle, reducing its insulation value and requiring an additional layer to bring it back to the recommended R-value for your home.

Mineral wool: Like fiberglass, this comes in batts, rolls or loose-fill forms. It's made from natural and recycled materials and often appears greenish-brown in color.

Spray-in foam: More expensive than other types of insulation, spray-in foam is becoming a more common choice because it provides more insulation and better air sealing, Touchstone Energy®'s Alan Shedd says. Sprayed on the interior of your roof, it wraps the attic into your home's envelope; if your HVAC unit is in the attic, it's going to operate more efficiently in that more temperate environment. "It's more expensive than blowing in another six inches of fiberglass or cellulose, but it's certainly worth getting prices," Shedd says. "For new construction, it's a no-brainer."

Spray-in foam insulation is a no-brainer for new construction.

If you're climbing up to look at what you've got, be sure to protect yourself. Bring a flashlight, so you can check your insulation in every nook and cranny and also see where you are stepping. Only walk where you are sure of secure footing, so you don't drop through the ceiling below. Wear gloves, eye protection and a dust mask if you'll be handling any insulation. Limit your time up there if temperatures are very hot or cold.

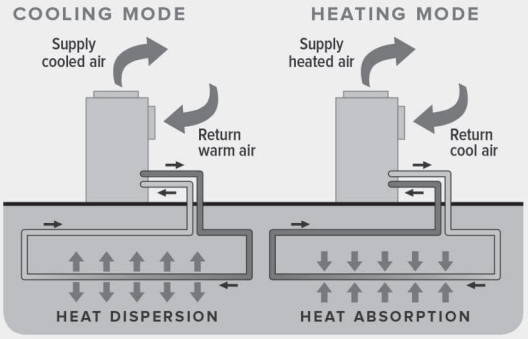
A Shopper's Guide to Heat Pumps

Baffled by the alphabet soup that greets you when you start looking at heat pumps? If an HVAC contractor starts spouting numbers for SEER, EER, HSPF and COP, just remember those terms are a handy shorthand for comparing the efficiency of one heat pump to another. A higher number indicates a more efficient system. That can save you money in energy costs over the life of the unit, but you may have to pay a little more for it up front.

SEER: Seasonal Energy Efficiency Ratio. This rates the cooling efficiency of an air-source heat pump. To earn ENERGY STAR certification, heat pumps must have a SEER of at least 15; mini-split SEER ratings can be in the 30s. You can buy less expensive, traditional models with a SEER of 13, the NRECA's Brian Sloboda says. "The good news is, if you have an older unit, it's probably below that, so the lowest amount you spend on a new unit will still save you money," he says.

How ground-source heat pumps work

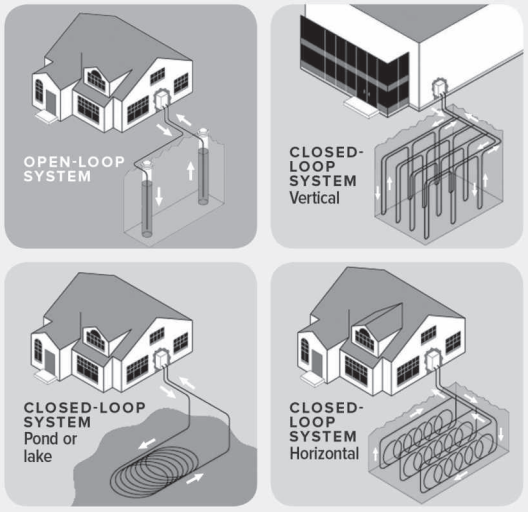
Geothermal heat pumps operate on the same heat-transfer principles seen in air-source heat pumps, but they use 25 to 50 percent less electricity than conventional HVAC systems.



SOURCE: WATERFURNACE

TYPES OF GEOTHERMAL HEAT PUMP SYSTEMS

There are four basic configurations for geothermal heat pump ground loops. One is an "open-loop system," where ground water or well water is used. Three others are "closed-loop systems," where a water and antifreeze solution is continually moved through pipes.



SOURCE: U.S. DEPARTMENT OF ENERGY, OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

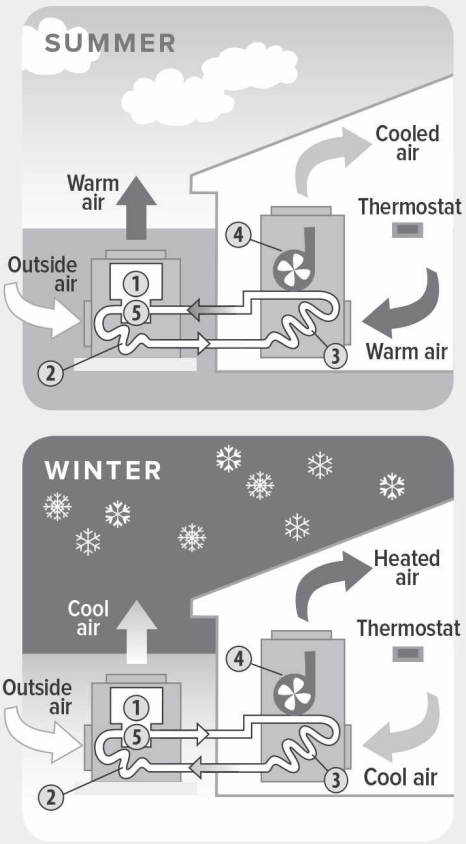
EER: Energy Efficiency Ratio. It's not tied to seasonal performance, but it is a measure of cooling performance. You'll find this on geothermal (ground-source) heat pumps, usually rated 18 and up.

HSPF: Heating Seasonal Performance Factor. The flip side of SEER, this rates an air-source heat pump's heating efficiency. Look for a rating of 8.2 or above for ENERGY STAR-certified models.

COP: Coefficient of Performance. If you're shopping for geothermal systems, watch for this measure of heating efficiency, and aim for a rating of 3.6 or higher for more efficient models.

How air-source heat pumps work

By transferring heat between a house and outside air, these devices trim electricity use by as much as 30 to 40 percent in moderate climates.



1. **COMPRESSOR**
   Increases refrigerant pressure to accept the maximum heat from the air.
2. **OUTSIDE COIL**
   Refrigerant moves through coils, absorbing heat from the outside air in winter or releasing heat to the outside air in summer.
3. **INSIDE COIL**
   Refrigerant moves through coils, absorbing heat from the inside air in summer or releasing heat to the inside air in winter.
4. **AIR HANDLER**
   Fan blows air over the inside coil and into a home's ducts.
5. **REVERSING VALVE**
   Switches the direction of the refrigerant flow, changing the heat pump's output to hot or cold air (controlled by thermostat).

SOURCE: NRECA

April 25-29
Black Hills Film Festival, Hill City, SD, 605-574-9454

April 28-29
Bike Show, Ramkota Convention Center, Aberdeen, SD, 605-290-0908

May 4-6
Naja Shrine Circus, Rapid City, SD, 605-342-3402

May 5
Frühlingsfest and Spring Market, Rapid City, SD, 605-716-7979

May 10
Chris Young, Rapid City, SD, 605-394-4115

May 12
Art and Wine Festival, Rapid City, SD, 605-716-7979

May 13
1880 Train Mother's Day Express, Hill City, SD, 605-574-2222

May 18
Turkey Races, Huron, SD, 605-352-0000

May 18-19
Sioux Empire Film Festival, Sioux Falls, SD, 605-367-6000

May 18-20
State Parks Open House and Free Fishing Weekend, Pierre, SD, 605-773-3391

May 18-20
Tesla Road Trip Rally, Custer, SD, 605-673-2244

May 19-20
Black Hills Mud Days, Lead, SD, 605-569-2871

May 19-20, May 26-27
Northeast Area Pari-Mutuel Horse Racing, Aberdeen, SD, 605-715-9580

May 5, 19; June 2, 16; July 7, 21; Aug. 25; and Sept. 8
Lawn Mower (Points) Races, Pukwana, SD, 605-680-1718 or 605-682-9781

Photo courtesy: **travelsd.com**

May 25-September 30
Legends in Light® Laser Light Show at Crazy Horse Memorial, Crazy Horse, SD, 605-673-4681

May 25-27
South Dakota Kayak Challenge, Yankton, SD, 605-864-9011

May 26-27
Annual SDRA Foothills Rodeo, Wessington Springs, SD, 605-770-4370

June 1-3
Fort Sisseton Historical Festival, Lake City, SD, 605-448-5474

June 1-3
Annual Black Hills Quilt Show & Sale, Rapid City, SD, 605-394-4115

June 1-3
Wheel Jam, Huron, SD, 605-353-7340

June 1-3
Fish Days, Lake Andes, SD, 605-487-7694

June 2
Kids' Carnival, Rapid City, SD, 605-716-7979

June 2
Annual Casey Tibbs Match of Champions, Fort Pierre, SD, 605-494-1094

June 2-3
Spring Volksmarch at Crazy Horse Memorial, Crazy Horse, SD, 605-673-4681

June 7-9
Senior Games, Sioux Falls, SD, Contact Nicole Tietgen at 605-665-8222

June 8-9
Senior Games, Spearfish, SD, Contact Brett Rauterhaus at 605-772-1430

June 15-16
Czech Days, Tabor, SD, www.taborczechdays.com, taborczechdays@yahoo.com

June 21-23
Senior Games, Mitchell, SD, Contact Howard Bich at 605-491-0635

June 29
Naja Shrine Circus, Wall, SD, 605-342-3402

June 30
Naja Shrine Circus, Deadwood, SD, 605-342-3402

July 1
Naja Shrine Circus, Lemmon, SD, 605-342-3402

July 10-15
4th Annual 3 Wheeler Rally, Deadwood, SD, 605-717-7174, www.d3wr.com

To have your event listed on this page, send complete information, including date, event, place and contact to your local electric cooperative. Include your name, address and daytime telephone number. Information must be submitted at least eight weeks prior to your event. Please call ahead to confirm date, time and location of event.