Farmers' Electric Cooperative
Together, we have the power to make a difference

Watts Up

A Monthly Publication of The FEC Companies

Your Touchstone Energy® Partner

201 W. Old Hwy. 36
P.O. Box 680
Chillicothe, MO 64601
660-646-4281
1-800-279-0496
Outage: 1-800-927-5334
www.fec-co.com

September 2011

New free service allows members with internet access to track usage daily

Go to Farmers' Electric's web site and click on link to MyUsage.com

A new free service from Farmers' Electric Cooperative will show members how much electricity they are using each day. Internet access is a must to take advantage of the service offered to members of FEC.

"Studies have shown that when members begin to look at how much electricity they are using on a daily basis, they tend to reduce their usage about 10 percent," said Steve Shoot, Manager of Member Services for FEC.

The graph that will appear on screen will show their daily usage over a 30-day period, while also showing the daily temperature. Kilowatt hour usage tends to climb in extreme weather conditions whether it be winter or summer. The comparison of daily temperatures and daily kilowatt hour usage may surprise some members.

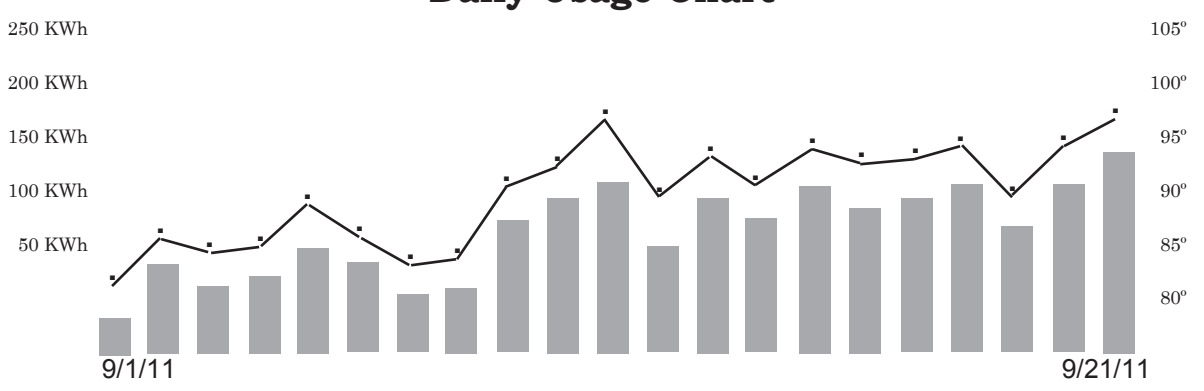
"You can definitely see an increase in kilowatt hour usage whenever it gets really cold or really hot," Shoot said.

According to Shoot, for a member to retrieve their daily usage information they must first go to MyUsage.com. Easy access to this site can be obtained by going to the FEC web site. A link to MyUsage.com is on the home page.

Once you are on the MyUsage.com site, click

(Continued on Next Page)

Daily Usage Chart



Harvest season can be dangerous when working near energized power lines

Harvest season is one of the busiest times of year for farmers – and among the most dangerous. Before taking to the fields, it's important that everyone involved in the harvest process be aware of overhead power lines and to keep equipment and extensions far away from them.

In fact, before each work day it is important to review all farm activities and work practices that will take place around power lines and remind all workers to take precautions.

Here are a few things to consider before each harvest day begins.

Know the location of power lines and keep farm equipment at least 10 feet away from them.

Use care when raising augers or the bed of a grain truck. It can be difficult to estimate distance and sometimes a power line is closer than it looks.

Another scenario that involves grain augers and grain bins is that of installation. There have been a number of instances in FEC's service territory where grain bins have been installed within a few feet of existing power lines. There is the potential for this to be an extremely dangerous situation, especially when grain augers are being moved into position for loading or unloading purposes.

In this scenario, it is best to contact FEC and to consider placing the power lines near the grain bins underground. In this way, workers never have to deal with potential danger.

When moving large equipment or high loads near a power line, always use a spotter, or someone to help make certain that contact is not made with a line.

Always lower portable augers or elevators to their lowest possible level - under 14 feet - before moving or transporting them. Variables like wind, uneven ground, shifting weight or other conditions can combine to create an unexpected result.

Be aware of increased height when loading and transporting larger modern tractors with higher antennas. 30893

(Continued on Next Page)

Megan Davidson, left, and Paige Cline were FEC sponsored attendees to the C.Y.C.L.E. conference in Jefferson City.

Kline, Davidson attend C.Y.C.L.E. conference

Megan Davidson and Paige Cline, both of Hardin, and sponsored by Farmers' Electric Cooperative were among 76 high school students from across Missouri who participated in the Electric Cooperative CYCLE program.

CYCLE stands for Cooperative Youth Conference and Leadership Experience. The conference was held July 13-15 in Jefferson City.

Each year in July, an action-filled three days provides high school students opportunities to learn first-hand what it is like to be involved in politics, the cooperative form of

(Continued on Next Page)

AYBF reaches $500,000 in donations to families

Donations from Farmers' Electric's Area Youth Benefit Fund to area families now total a half a million dollars.

A check was presented to Children's Mercy Hospital of Kansas City at the AYBF annual dinner-auction August 7, bringing the overall donation total over the years to $500,000. The donation to Children's Mercy Hospital will be used to pay on medical bills for children who reside within FEC's nine-county service territory.

The AYBF, founded in 1993, was established to provide financial assistance toward the payment of medical bills for children 18 years of age and under. The fund is designed to assist families with children who have been ill or injured in which the parents do not have enough money or health insurance to cover the medical costs.

FEC adds three employees to work force

Since the first of the year, FEC has added three new employees to its work force. One new employee has been added to each of the cooperative's three departments.

Lacey Capps is the new customer service representative in the FEC office. Mrs. Capps began work in March of this year.

She is a 2004 graduate of Tina-Avalon High School and in 2008 earned a bachelors degree in Business Administration - Accounting, from the University of Central Missouri.

Lacey Capps

Prior to joining FEC she worked at North Central Missouri College, Trenton, and Edward Jones, Carrollton.

She and her husband, Andrew, are the parents of 11-month-old son, Jaxon. She lists her main hobby, at this writing, of taking care of her son.

Cole Musgrove began work at FEC in early January.

He is currently an apprentice lineman, working in the Operations Depart-ment and is based out of the Gallatin warehouse.

Cole Musgrove

Musgrove is a 2008 graduate of Kearney High School and completed the lineman training courses at Southeast Lineman Training Center, Trenton, Georgia, in 2010.

His hobbies are bowhunting for deer and wild turkey and motocross.

Rick Billinger is the newest member of FEC's Member Services Department, beginning his new job in early April as a member services representative.

Rick Billinger

Billinger is a native of Solomon, Kansas, and worked 19 years for Dixon, Saline & Ottawa Electric Cooperative.

At DS&O he worked primarily in member services, although he also has experience in SCADA technology, engineering and locating underground power lines.

He has one daughter, Courtney. His hobbies include hunting, fishing, riding ATV's and woodworking. 121576

C.Y.C.L.E. Conference

(Continued From Previous Page)

business and being a leader. The program included nationally known speakers and a day at the Missouri State Capitol learning how a bill goes through the process to become a law. To learn more about electric cooperatives, the group was divided up into small teams that competed in various events like the "build a cooperative" game.

The CYCLE program is in its 8th year and is a recipient of the National Community Youth Service award for the top youth program among all electric cooperatives in the country. FEC has participated in the CYCLE program since its inception,

For more information, please go to http://www.amec.org/youth.html#cycle.

Missouri River flooding in service territory forces FEC to pull some meters

Farmers' Electric crews removed approximately 40 meters in early July when the Missouri River broke through several levees on the south end of the cooperative's service territory.

Crews were prepared to remove over 300 additional meters, but floodwaters began to recede in the third week of July. The meters that were removed primarily were those that served barns and sheds in isolated areas.

"We removed the meters to protect equipment in the event of a flood," explained Troy Hermanson, Operations Manager at FEC. "In this way we could de-energize some lines that were non-essential and still provide power to other meters in that area."

FEC office to close on Labor Day, September 5

Farmers' Electric's office will be closed Monday, September 5, in observance of the Labor Day holiday.

MyUsage.com

(Continued From Previous Page)

Usage Monitor Account and follow the directions. You will be asked what state you reside in and who is your power provider. You will eventually leave your email address and set up a password for security purposes.

A validation code will be emailed to you once you have given MyUsage.com your email address. This validation code must be used to proceed any further.

You will then be asked to enter your account number and meter number. Do not include any dashes or hyphens. A few more questions will be asked and then you are ready to go.

Harvest season can be dangerous when working near energized power lines

(Continued From Previous Page)

Never attempt to raise or move a power line to clear a path!

Don't use metal poles when breaking up bridged grain inside and around bins.

As in any outdoor work, be careful not to raise any equipment such as ladders, poles or rods into power lines. Remember, non-metallic materials such as lumber, tree limbs, tires, ropes, and hay will conduct electricity depending on dampness and dust and dirt contamination.

Use qualified electricians for work on drying equipment and other farm electrical systems.

Electrical work around the farm can also pose hazards. Often the need for an electrical repair comes at a time when a farmer has been working long hours and is fatigued. At such times its best to step back and wait until you've rested. Make sure you have the level of expertise required to do the electrical work, and never hesitate to contact a qualified electrician when appropriate.

Doing electrical work is also a good time to check your wires because mice and other animals tend to chew at them, leaving the electrical hazard of bare wires that can cause electrical shorts and potentially fatal shocks.

It's also important for farm equipment operators to know what to do if the farm equipment comes in contact with a power line. Staying inside the vehicle unless there's fire or imminent risk of fire, is generally the best course of action.

If the power line is energized and you step outside, your body becomes the path and electrocution is the result. Warn others who may be nearby to stay away and wait until the electric utility arrives to make sure power to the line is cut off.

If there is a threat of fire or other risk, the proper action is to jump – not step – with both feet hitting the ground at the same time. Do not allow any part of your body to touch the equipment and the ground at the same time. Continue to hop or shuffle to safety, keeping both feet together as you leave the area.

Once you are away from the equipment, never attempt to get back on or even touch the equipment. Many electrocutions occur when the operator dismounts and, realizing nothing has happened, tries to get back on the equipment. 150335

Doug Rye says... "Make your improvements this fall"

Folks, it was a hot summer. One day last month, it was 107 degrees in Fort Smith, 104 in Little Rock, 101 in Fayetteville and near 100 degrees in most of the rest of the state. I always worry about our readers whenever we have extreme weather conditions because I know many will be receiving high utility bills.

For many of you, those bills will be hitting your mailboxes this month. I also know that heating/cooling contractors worked many long hours this summer trying to keep systems working. I called a couple of those companies last month, and they said that new callers were having to wait five to six days for service. Both bills and service are difficult for the consumer during the hot summer or cold winter months.

Energy Efficiency Expert Doug

Let's take a look at what was happening in Little Rock on that hot day. The sky was clear, and the temperature was above 100 degrees for about six hours of the day. Using an infrared camera, one of our favorite energy tools, we took a picture of a typical house with red shingles at 1 p.m.

The shingle temperature was 173 degrees. If the temperature in the house is 75 degrees, there is a 98-degree temperature difference. Do you remember my column on the Delta T? The bigger the Delta T, the more it takes to heat or cool. If there are only shingles and roof decking between the 173 degrees and the attic, I think that you would agree that the attic temperature could easily be 150 degrees.

Well, if the ductwork is in the attic or if you have little or no insulation, the house will have trouble maintaining a comfortable temperature. And even if it does, the electric bill will probably still be high.

So what is one to do? First of all, you can add cellulose ceiling insulation as discussed last month, which will help in both the summer and the winter. Another solution would be to add a radiant barrier at the roof slope, which would lower the attic and ductwork temperature greatly in the summer. Or you can spray the entire roof deck with foam, which essentially means that there is no longer an attic at all. The space that used to be the attic is now just an odd-shaped room overhead.

In most cases, this is probably the best answer, but it is usually the most expensive.

You can learn a lot more about foam insulation and its in-stallation by visiting: **www.smartenergytips.org.**

As we have written many times, the problem will not go away until you do something about it. Our goal is to help you know what to do. For now, let's just be thankful it is September and cooler. See you in October when it would be a perfect time to make your improvements.

P.S. I know that some of you were wondering about the temperature for other shingle colors. Photos of white, black and brown shingles also were taken and revealed similar temperatures ranging from 164 to 173 degrees. So you can't say that one color is significantly cooler than the other! 301517

Doug Rye can be heard on KGOZ, KKWK and KAAN

Every Saturday morning Doug Rye hosts a live call-in show on several area radio stations. He can be heard from 9-10 a.m. on KGOZ, 101.7, Gallatin, KKWK, 100.1, Cameron and on KAAN, 95.5, Bethany.

Here's what you need to look for in an energy efficient window

Here are suggestions gleaned from Energy Star and the U.S. Department of Energy on what to look for when buying new windows.

NFRC label — Look for the label of the National Fenestration Rating Council. It will give you:

• **The U-factor** — A measure of heat transmission due to temperature differences. Ratings typically fall between 0.20 and 1.20. The lower the U-factor, the better the window at keeping heat in.

• **The solar heat gain coefficient (SHGC)** — A measure of the rate of solar heat flow through the window. Ratings fall between 0 and 1. The lower the SHGC, the better a window is at blocking unwanted heat gain.

• **The visible transmittance (VT) value** — A measure of the fraction of visible light that passes through the window. Ratings fall between 0 and 1. The higher the VT, the higher the potential for day lighting.

• **Air leakage (AL) rating** — A measure of the rate of infiltration through the window. Ratings typically fall between 0.1 and 0.3. The lower the AL, the better a window is at keeping air out.

• **Condensation resistance (CR)** — A measure of how well a window resists condensation. Ratings fall between 1 and 100. The higher the number, the better a product is able to resist condensation.

• **Energy Star label** — Look for ENERGY STAR's climate zone label on qualifying windows and skylights, which are tailored to four climate zones. For example, windows in northern climates are optimized to reduce heat loss in winter, while windows in southern climatesare optimized to reduce heat gain during the summer.

• **Frame materials** — Look for wood composites, vinyl and fiberglass frames that reduce heat transfer and help insulate better.

• **Low-E glass** — Special coatings reflect infra-red light, keeping heat inside in winter and outside in summer. They also reflect damaging ultraviolet light, which helps protect interior furnishings from fading. They cost more but can reduce energy flow by up to 50 percent.

• **Gas fills** — Some energy-efficient windows have argon, krypton or other gases between the panes. These odorless, colorless, nontoxic gases insulate better than regular air. Gasfilled windows are more expensive, and over time, the gas may leak out.

• **Warm-edge spacers** — A spacer keeps a window's glass panes the correct distance apart. Today's warm edge spacers – made of steel, foam, fiberglass or vinyl – reduce heat flow and
prevent condensation.

• **Multiple panes** — Two panes of glass, with an air or gasfilled space in the middle, insulate much better than a single pane. Some Energy Star-qualified windows have three or more
panes for even greater efficiency, increased impact resistance and sound insulation.

Glass Glossary

Several types of special glass are available that can help control heat loss or gain, thereby reducing the amount of energy used for heating or cooling.

Low-emissivity glass — A special coating admits the full spectrum of sunlight but blocks radiant heat from escaping. Coatings on Low-E glass reduce the emissivity and increase the R-value (resistance to heat flow) of double-pane windows. DNR recommends Low-E windows with a U-value of .35 or less to control conduction losses.

The incoming visible light is reflected only slightly, so Low-E glass appears almost clear rather than mirror-like.

Windows with Low-E coatings cost about 10 percent to 15 percent more, but they can reduce energy flow by 30 percent to 50 percent.

Reflective glass — This glass is coated with a reflective film. It controls solar heat gain during the summer but also reduces the passage of light year-round and, like heat-absorbing glass, it reduces solar transmittance in winter. Heat-absorbing glass and reflective glass should not be used in passive solar heating applications, such as south-facing windows.

Here are 87 ways to save money every day

FEC has compiled an extensive list of low cost-no cost energy-saving measures to help you better manage your home energy usage. Use these ideas to save money every day.

Water Heating

1. Set the water heater temperature no higher than 120 degrees Fahrenheit.
2. For households with only one or two people a temperature setting of 115 degrees may work fine.
3. Install a water heater wrap as per manufacturer's instructions.
4. Drain one to two gallons from the bottom of the water heater each year to reduce sediment build up.
5. Install heat traps on hot and cold water lines when its time to replace your water heater.
6. Insulate exposed hot water lines,.
7. Limit shower length to five to seven minutes.
8. Install low-flow shower heads.
9. Wash clothes in cold water. Use hot water for only very dirty loads.
10. Do only full laundry loads.
11. If you must do smaller loads, adjust the water level in the washing machine to match the load size, especially when using hot water.
12. Always use cold water rinse.
13. Use bath towels at least twice before washing them.
14. Fix dripping faucets.
15. Don't let water run while you are shaving.
16. Don't let water run while brushing your teeth.

Laundry

17. Clean dryer lint before each load.
18. Verify the outdoor dryer exhaust door closes when dryer is not running.
19. Verify dryer vent hose is tightly connected to inside wall fitting.
20. Verify dryer vent hose is tightly connected to dryer.
21. Verify dryer vent hose is not kinked or clogged.
22. Minimize clothes drying time; use moisture sensor on dryer if available.
23. Dry consecutive loads to harvest heat remaining in dryer from last load.
24. Consider using a "solar powered" clothes dryer...an old-fashioned clothes line.

Kitchen

25. Use your refrigerator's anti-sweat feature only if necessary.
26. Switch your refrigerator's powersaver to "ON", if available.
27. Clean refrigerator coils annually.
28. Set the refrigerator temperature to 34-37 degrees and freezer temperature to 0-5 degrees.
29. Make sure the gaskets around the refrigerator and freezer seal tightly.
30. Unplug unused refrigerators or freezers.
31. Use microwave for cooking whenever possible.
32. When cooking on the range, use pots with lids. Foods will cook quicker.
33. If you are heating water, don't start with hot water from the tap; start with cold water from the tap.
34. Remember to use the kitchen exhaust fan when cooking and turn it off after cooking.
35. Let food cool before storing it in the refrigerator.
36. Scrape dirty dishes with cold water before putting them into the dishwasher.
37 Use cold water for garbage disposal.
38. Only run dishwasher when it is fully loaded.
39. Use air-dry cycle instead of heating-dry cycle to dry dishes.

Lighting

40. Replace any light bulb that burns more than one hour per day with is compact fluorescent bulb equivalent.
41. Turn unnecessary lighting off.
42. Replace outdoor lighting with its outdoor-rated compact fluorescent bulb equivalent.
43. Use four-foot fluorescent fixtures with for your workroom, garage and laundry areas.
44. Use outdoor security lights with a photocell and/or a motion sensor.

Miscellaneous

45. Turn computers and monitors off when not used.
46. Verify electric blanket is turned off in the morning.
47. Turn waterbed heater off when not needed.
48. Turn large-screen TV's off completely when not in use.
49. Turn off stereos and radios when not in use.
50. Remember to turn off hair curling-iron and hot rollers.
51. Turn off coffee makers when not in use.
52. Turn off pool pump and/or heater when not needed.
53. Verify livestock water tank heaters are off when not needed.
54. Verify heat tape is off when not needed.
55. Verify battery chargers are off when not needed.
56. Whenever you purchase a new appliance, make sure it is Energy Star rated.

Heating & Air-Conditioning

57. Set thermostats to 78 degrees in the summer and 68 degrees in the winter.
58. Run ceiling paddle fans on medium, blowing down in the summer.
59. Run ceiling paddle fans on low, blowing up in the winter.
60. Change HVAC filters monthly. 302392
61. When installing new air filters, make sure they are facing in the correct direction (Look for arrow on side of filter),
62. When heating or cooling, keep windows locked; they seal better.
63. Insulate electric wall plugs and wall switches with fire-retardant foam pads.
64. Caulk along baseboards with a clear sealant.
65. Close fireplace damper when not burning a fire.
66. Caulk around plumbing penetrations that come through walls beneath bathroom and kitchen sinks.
67.Caulk electrical wire penetrations at the top of the interior walls.
68. Close shades and drapes at night to keep heat in during the winter.
69. Make sure drapes and shades are open on the south side of your home to catch free solar heat in the winter.
70. Close shades and drapes during day to help keep heat out during summer.
71. Ensure attic access door closes tightly.
72. Insulate attic access door.
73. Verify blown insulation in your attic has not shifted over into your soffit area, blocking your soffit vents.
74. Make sure air grilles are not blocked by furniture or bookcases.
75. While outside, verify soffit vents beneath roof eaves allow for free air passage to keep attic cooler in the summer.
76. Do not use roof-top power ventilators for attic exhaust as they evacuate conditioned air from your home.
77. Have your HVAC system serviced once a year by a certified technician.
78. Monitor your home's relative humidity in the summer. If it consistently stays in the 60 percent range or higher, ask your HVAC technician about lowering your central conditioning unit's indoor fan speed.
79. Make sure window air-conditioning units are weather-stripped.
80. Remove and clean window air-conditioning filters monthly.
81. Keep "fresh air" vents on window units closed.
82. Minimize use of electric space heaters. They cost over 14-cents an hour to operate; $3.42 a day or $102.60 a month.
83. Caulk around basement windows.
84. Make sure floor registers are not blocked by rugs, drapes or furniture.
85. Make sure your heat pump or air-conditioning is kept clean and free of debris.
86. Make sure all outside doors and storm doors close and seal tightly.
87.Keep your garage door down; warmer garage in the winter, cooler in the summer.