

Energy Partners

A monthly look at the happenings of and related to:



New-Mac Electric Cooperative

Your Touchstone Energy® Partner 
The power of human connections

New-Mac urges customers to be prepared

Southwest Missouri residents are more than aware of what storm season can bring. In the last few years, New-Mac members have experienced some of the most damaging storms in the history of the cooperative. We can only hope that the ice, snow, rain and winds, take it easy on us in 2009. However, while we can't predict the weather, something everyone can do is be prepared if the storms do indeed come.

By planning ahead, the hardships of destructive storms can be alleviated. Keep the following items on hand and be prepared:

- Flashlight (with extra batteries) and candles.
- Battery-powered radio.
- Bottled water and non-perishable food items.
- Manual can opener.
- Extra medicine and baby items.
- First-aid supplies.
- Back-up heating source – NEVER use a charcoal grill

to cook or heat inside!

- Fire extinguisher and smoke detector.

New-Mac reminds everyone to never approach downed power lines as they may be energized.

In the event of outages, New-Mac customers should have their location number ready and call 451-1515 or 800-322-3849. Don't assume that someone else has already called for your area.

During extended outages, customers can get updates on the progression of restoration efforts by checking our website, www.newmac.com, or through the local media: TV stations (KSNF-16, KODE-12, KOAM-7, Fox-14), radio stations (KBTN AM-1420 and FM-99.7, KMXL 95.1 FM, KNEO 91.7 FM, KZRG 1310 AM, ESPN Radio 1230 AM, Big Dog 97.9 FM, KSYN 92.5 FM, Lite Rock 93.9 FM, KIX 102.5) and newspapers (*Neosho Daily News*, *Joplin Globe*, *McDonald*



The New-Mac service area has seen more than its share of extreme weather in recent years.

County News Gazette, Seneca News Dispatch).

If you use a standby generator, make sure power is cut off from the utility grid before you operate it, which is best done by utilizing a double-throw

switch. This prevents electricity from traveling back through the power lines, or what is also known as "back feed." Back feed creates danger for anyone near power lines, particularly crews working to restore power.

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New-Mac Electric Cooperative

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Energy Partners is a monthly publication of New-Mac Electric for the purpose of informing members of the programs, services and happenings of, and related to, the cooperative.

Co-op set to attend trade shows

New-Mac Electric will be spreading its *Take Control & Save* message at three local trade shows in the weeks ahead.

First, New-Mac will be one of around 100 exhibitors on display at the Home Builders Association of Southwest Missouri's 21st Annual Home Show, to be held

Feb. 27-March 1 at the Holiday Inn Convention Center – formerly the John Q. Hammons Trade Center – in Joplin.

This year, the HBA is encouraging attendees to "Plant-It Green." The three-day event draws thousands of people each year and features all things home-related: construction,

remodeling, maintenance, appliances, furnishings, decor and much more. The show times are 10 a.m. to 8 p.m. Friday and Saturday, and 1-5 p.m. Sunday.

Next, New-Mac will be at Neosho's 17th Annual Business & Industry Review, scheduled for

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Think twice before cutting meter seals

A broken or removed meter seal is viewed as an indicator of meter tampering. Therefore, do not cut a meter seal without authorization from New-Mac. If electrical work needs done, requiring a seal to be broken, such work should be performed by someone with electrical training. Many times, a main breaker switch can simply be flipped to allow for such work.

Please call before you dig

Digging in areas where there may be an underground electric line can be dangerous! So, before any project that requires digging, call the Missouri One Call System at 800-DIG-RITE.

Those who fail to make this call not only face the chance of electric shock; they also will be held responsible for any repairs that may be necessary if a line is accidentally cut or damaged.

New-Mac members can also call the New-Mac office to receive assistance in locating lines up to the meter. To take advantage of this service, call 417-451-1515, ask for dispatch, and talk to Randy Green.

Moving advice

When moving out of the New-Mac Electric service area, please don't forget to leave a forwarding address. You could be leaving capital credits behind.

Co-ops deal with realities of green power

There's certainly a buzz in rural circles these days about renewable power. Wind farms, for example, are generally built on wide-open spaces or ridgetops; methane gas from livestock waste can be burned to produce power; trees, grass and crop stalks can be shoveled into boilers or converted to other forms of fuel.

Because most renewable energy projects take root in rural America, electric co-ops are at the forefront of this new and exciting wave of generation technology. Currently, co-ops lead electric utilities in renewable power generation, with a full 11 percent of co-op power nationwide coming from hydro and other renewable resources, compared to 9 percent for the industry as a whole.

Co-ops nationwide own and operate about 1,000 megawatts of renewable projects utilizing biomass, wind, solar and small-scale hydropower. And 750 rural electric systems offer green power to their members. Those are numbers to be proud of.

In Missouri, electric cooperatives made the state's first three wind farms a reality by agreeing to buy the entire output of these northwest Missouri wind projects. It also helped that electric cooperatives own transmission lines that neatly coincide with the windiest parts of the state.

Despite some teething problems expected from a cutting-edge technology, these projects continue to increase the amount of power they generate.

Besides the wind farms, electric cooperatives have found other ways to bring renewable power into the generating mix. This year, heavy rains made large amounts of hydropower available to the

electric cooperative grid. Elsewhere, Missouri's electric cooperatives also have experimented with using biomass to generate electricity.

We are doing everything we can to make renewable power a viable part of our energy mix, but there are very real hurdles to overcome before that 11 percent can become 15, 20 or 25 percent in coming years.

For one, construction costs for electricity generation are going up across the board, and renewable sources are no exception. Three years ago, it was estimated that a wind farm would cost about \$1,000 per kilowatt of capacity - today that price tag has doubled. Costs for installation and operation of solar panels can run five times higher than a traditional coal plant of comparable size.

How do we get those costs down? Research and development can help to some extent, and the Cooperative Research Network is working with the U.S. Department of Energy on various projects.

Government programs, such as Clean Renewable Energy Bonds (CREBs), are another solution. The bonds offer interest-free loans for financing renewable power projects, and the U.S. Treasury Department reserved \$450 million in CREBs for electric co-ops in 2008.

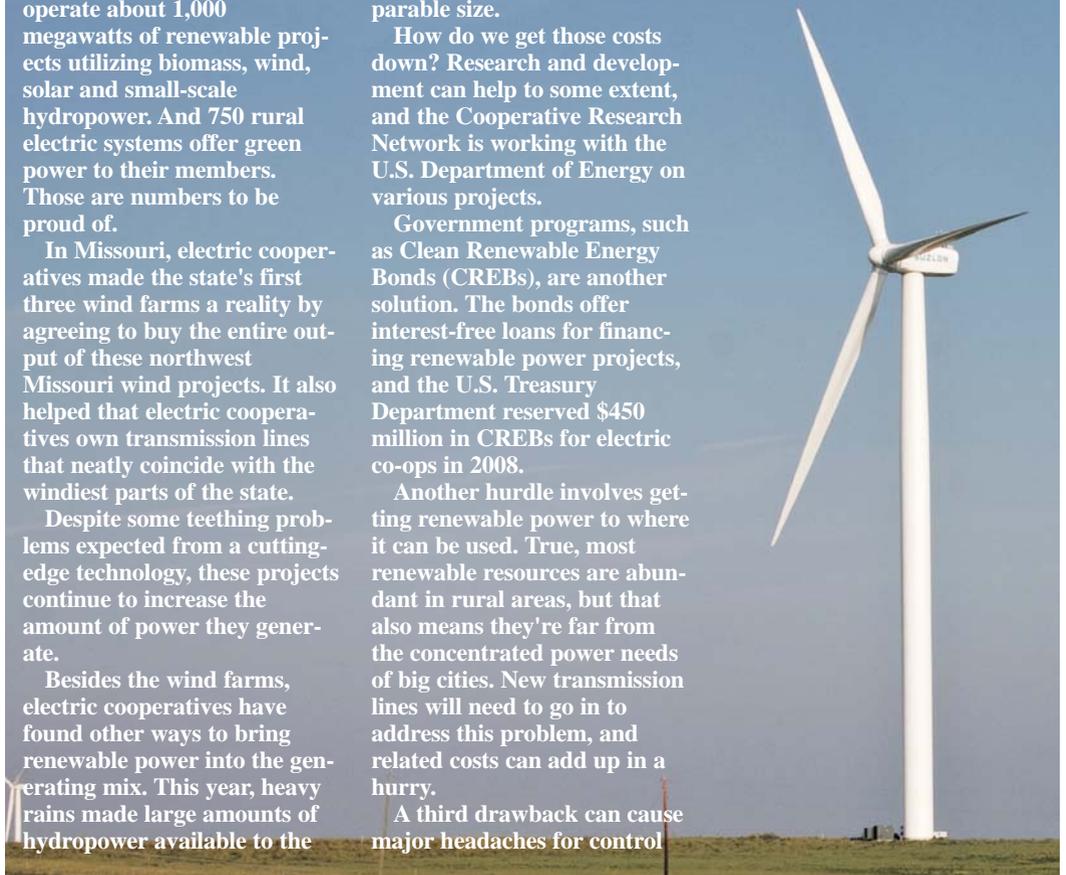
Another hurdle involves getting renewable power to where it can be used. True, most renewable resources are abundant in rural areas, but that also means they're far from the concentrated power needs of big cities. New transmission lines will need to go in to address this problem, and related costs can add up in a hurry.

A third drawback can cause major headaches for control

room operators, charged with matching available power to demand. Most renewable sources are intermittent: the sun doesn't always shine, and the wind doesn't always blow. A fossil fuel-fired power plant, on the other hand, will produce "baseload" power as long as fuel remains available. In the case of a renewable resource like solar, though, an overcast afternoon can leave a gap in available power that needs to be filled.

Improved technology offers one way around this problem, making it possible, for example, to store excess electricity produced on a sunny day. When a storm cloud rolls up, that stored power would be ready and waiting. Co-ops are constantly making advance-

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○ Renewable

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ments in storage technology, although real breakthroughs have yet to be realized.

Although some policymakers will try to speed up the process of getting renewable power on-line, all of us need to provide an informed, thoughtful approach. Let's be realistic about the value of renewable energy,

and be realistic about its associated costs and benefits.

Support for renewable power must be consistent with providing safe, reliable and affordable service to you, our members. Co-ops will develop the renewable resources that make the most sense for us, geographically and economically. We will work to ensure those paying the freight for such technologies also reap the benefits.

Renewable energy will remain a key part

of rural development efforts and our nation's energy security. But as not-for-profit, consumer-owned electric co-ops, we will encourage elected officials to make sure public policy doesn't get ahead of available technology and doesn't impose a hardship on consumers. We will seek real-world results that benefit the environment, and you.

A Rural Missouri staff article

A lot at stake for cooperatives in 2009

A new president, new governor, new members of Congress, 43 new state legislators, a shaky economy, climate change legislation. There's a lot at stake for

electric cooperative members in the federal and state legislative arena in 2009.



By Barry Hart
*Executive Vice President
of the Association of
Missouri Electric
Cooperatives*

Fortunately, there's a dedicated group of people looking out for your interests in our state capital and Washington, D.C. This year our attention will be focused on getting to know our newly elected officials and telling them why the electric co-op model works so well for rural America.

We'll be looking for a seat at the table when President Barack Obama and Governor Jay Nixon craft new energy policy. At this date, we don't know the direction these measures will take.

We can make a few assumptions, however. There's no question we will see Congress work to pass some form of climate change legislation. When lawmakers last looked at this issue, there were real concerns they would rush to pass something without considering the consequences.

Some of the bills being considered last summer could have doubled electric bills for electric cooperative members. Thanks to a tremendous grassroots movement called "Our Energy, Our Future," that damaging legislation failed and electric co-ops

now are a part of the discussion on Capitol Hill. Those who represent your interests in Washington, D.C., will work to make sure whatever finally passes will allow you to continue receiving affordable and reliable electricity.

We in Missouri consider ourselves fortunate to have elected officials who do their work with the best interests of their constituents in mind. When we explain our position on the issues, they understand and assure us they share our concerns about the welfare of rural people.

Our two U.S. senators, Kit Bond and Claire McCaskill, are evaluating the climate change proposals and are concerned about the effects they may have on our economy, jobs and rural electric cooperative members. During the last debate, Sen. McCaskill sent a letter signed by 10 senators to Senate leadership expressing those concerns. We are fortunate that Claire has the respect of our new president. Our national leader, Glenn English, has met with key leaders of President Obama's incoming energy team to give them your views as

they move in a new direction.

Our new Governor Jay Nixon is no stranger to Missouri's electric cooperatives. When he was a state senator, he worked to end costly power line duplication to the benefit of co-op members. As attorney general, he sided with electric cooperatives in fighting a merger of satellite TV companies that would have raised costs for rural people.

Governor Nixon laid out his thoughts on the state's energy future in a speech at the Association of Missouri Electric Cooperatives annual meeting. He stressed that the state needs affordable energy from all sources — wind, solar, biomass, geothermal, clean coal, natural gas and nuclear. He thanked electric co-ops for leading the way on development of wind power, and he pledged to help

electric co-ops continue to embrace renewable energy while searching for ways to bring green manufacturing jobs to Missouri.

We look forward to working with our elected officials to meet the challenges of providing electricity in rural areas, knowing there is a strong grassroots effort behind us. We will be calling on all of you again in the not-too-distant future to send a message to Congress that affordable electricity is critical for the future of rural America and the quality of life we enjoy.

If you haven't done so yet, let's keep the ball rolling by sending an e-mail at www.ourenery.coop to ensure that when our leaders vote on legislation that could affect your electric bills, your concerns are foremost in their minds.

Energy Partners' *Recipe of the Month:*

TREES & RAISINS SALAD

Submitted by New-Mac member: **Amy Litchfield**

5 quarts broccoli flowers
1 lb. bacon (cooked crisp & crumbled)
2½ cups raisins
2½ cups pineapple (well drained)
1 cup chopped red onion

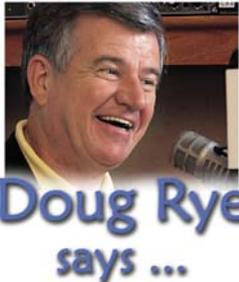
Dressing:
4 cups mayonnaise
2 cups sugar
½ cup vinegar

Combine first 5 ingredients – set aside. Prepare dressing and pour over vegetable mixture. Toss gently – chill and allow to stand at least one hour prior to serving. This will make 24 ½ cup servings.

Send your recipe, along with your name and customer number, to: Recipes, c/o New-Mac Electric Cooperative, P.O. Box 310, Neosho, MO 64850; or recipes@new-mac.com. If your recipe is selected, New-Mac will apply a \$15 credit to your bill.

Geothermal comes of age

We are postponing our discussion of the 10 Commandments of Energy Efficiency for a very important announcement. In October, President Bush signed the \$700 billion Emergency Economic Stabilization Act of 2008 (H.R. 1424). In addition to helping stabilize the nation's financial markets, the law also extended and enhanced tax credits and financing related to renewable energy and energy efficiency. And I am pleased to announce that included in the tax credits are — can you believe it? — geothermal heat pumps! For years, I have been teaching you about the advantages of geothermal heat pumps. Many of you have installed such systems in your houses or businesses and have learned that geothermal provides the most economical heating and cooling available in the marketplace. (Not to mention a percentage of domestic hot water for practically free.)



As I have said for years, 75 percent of the energy used in a geothermal heat pump is from solar British thermal units (Btus) that have been stored in the earth or, in other words, geothermal is 75 percent renewable energy. And it appears that the federal government now recognizes that. To me, just the recognition is huge. You see, no doubt about it, renewable energy can be feasible and is certainly needed. But it must be economically feasible for the average customer like you and me.

Lets look at some popular renewable energy sources:

No. 1: A typical solar voltaic system for a 2,000-square-foot house costs about \$25,000. It would produce about 2 kilowatts for six hours per day (25 percent of the day) if the sun were shining. That means the system would produce enough electricity to power two 1,000-watt hair dryers. The estimated payback is around 50 years and the life expectancy of the system is 20 years. I personally don't think that you can find a much worse investment. There is a tax credit available for this system in the Emergency Economic Stabilization Act.

No. 2: A typical wind generator for a 2,000-square-foot house costs between \$10,000 and \$20,000, depending on the size of the unit. It would typically produce 4 to 6 kilowatts of electricity if the wind was sufficiently blowing. In many parts of the United States, including Arkansas, residential wind generation is not a viable option. In fact, one of the

most efficient wind farms in the U.S. only generated 30 percent of the time last year, with almost no generation during the hottest summer months. It is at best difficult to estimate the payback of a residential wind turbine because of such unknown factors as maintenance costs and the availability of wind flow. There is, however, a federal tax credit available in the new law.

No. 3: A typical geothermal heat pump for a 2,000-square-foot house should cost about \$11,000 more than a conventional heating and cooling system. It does provide all of the heating and cooling required and it is available every single hour of every single day. The average payback for such a system will be seven to 10 years. The life expectancy of the geothermal unit is estimated to be 25 years, the loop in the ground is guaranteed for 50 years and no one actually knows how long it will last after that. And, yes, there is a federal tax credit available, at last!

Now, open your mind, think about it and you will probably be just as excited about this as I am. Geothermal has finally come of age! To learn more about the tax credits, visit www.energy.gov/taxbreaks.htm.

Doug Rye, a licensed architect living in Arkansas and the popular host of the "Home Remedies" radio show (as heard on KBTN 1420 AM), works as a consultant for the Electric Cooperatives of Arkansas to promote energy efficiency to cooperative members statewide. To order Doug's video, call Doug at 1-888-Doug-Rye. More energy-efficiency tips can also be found at www.ecark.org.

○ Trade shows

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March 13-14 at the Neosho High School cafeteria & junior-high gym.

This event features a wide variety of businesses and organizations that can be found in the Neosho area. The B&I Review will run from 5-8 p.m. on Friday and 10 a.m. to 3 p.m. on Saturday.

Finally, New-Mac will once again be a part of McDonald County's Business Expo, which will be held from 9 a.m. to 3 p.m. on March 28. Due to remodeling at McDonald County High School, this year's event will



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Anderson — 8 a.m. to 4:30 p.m.

Or visit us on the Web at
www.newmac.com.

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Call our consumer services department for information on the following services:

Autowithdrawal Payment
Levelized Billing
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Meeting rooms available at both locations
Credit Card Acceptance
Safety Programs (upon request)
Trade-A-Tree Program
Surge Protection
Green Power

Questions? Comments?

Contact: Mark K. Rakes
P.O. Box 310, Neosho, MO
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be held at Anderson Middle School.

Now in its third year, the Expo is an ideal opportunity for folks to become acquainted with all of the new businesses that have recently come to McDonald County, as well as see what's going on with the area's existing businesses.

At all three shows, New-Mac will be sharing ways to make your home more energy efficient. Additionally, visitors of the New-Mac booth are likely to come away with a souvenir.

So, stop by and see the New-Mac Electric exhibit at the HBA Home Show, Neosho's Business & Industry Review, and the McDonald County Business Expo.