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10 GREEN, SMART AND EFFICIENT

On the cover is Rural Electric Convenience Cooperative President/CEO David Stuva and the Gob Nob wind turbine. Stuva says Illinois co-ops are making progress with renewable energy, smart grid and energy efficiency projects.

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Mapping out a path from school to career

We need to increase the partnership between educators and industry

The idea that all college students are the same, or that there is only one way to prepare for a productive work life, is harmfully wrong. High school to college to career works for some. High school to work to college — or high school to trade to retirement no college — also works. Universities diminish opportunity and effectiveness while simultaneously crippling economic growth by suggesting a single route to employment. Accepting and misguidedly encouraging all students to pursue a university education — regardless of preparation, interest, or ability — serves no one.

Robert Maynard Hutchins said, “Education is not a substitute for experience. It is preparation for it. There is no substitute for experience.”

Many students want and need vocational/technical educational opportunities, while some may waste time and money in college. Roland Anglin, of Rutgers University, points to a growing problem nationally in an April 21, 2014, piece in the NJSP Spotlight, “Currently, vo-tech schools serve approximately 32,000 students, but in 2013 they had to turn away about 17,000 additional applicants who could not be accommodated.”

Anglin says industry partnerships that exist between community colleges and corporate giants like IBM should be cultivated for the opportunity they provide. Debunking the commonly heard, “Are we not then producing drones and limiting the chance for kids to get a liberal education,” is important work. A liberal education is invaluable for some, and worthless for others. Who is served if hundreds of thousands of students are choking on debt, dropping out, and/or vagrant?

The Manufacturing Institute’s 2011 report suggests that 75 percent of the

respondents to their annual survey identify a key problem: “Workforce shortages or skills deficiencies in skilled production roles are having a significant impact on their ability to expand operations or improve productivity.” Little has changed in three years.

In construction the going gets really tough. A March 7, 2013, *Forbes* report sums up the building industry challenge forebodingly: “America’s Skilled Trades Dilemma: Shortages Loom as Most-In-Demand Group of Workers Ages.” Retiring carpenters, plumbers, pipe fitters, and welders leave a “craft gap” that too many young people have been seductively coaxed out of by glossy ads, Madison Avenue hype, fancy buildings, five-star dining, and a seemingly endless flow of free cash to go to college for jobs that don’t exist. To what end? Where is transparent, responsible, university leadership in this equation?

And, as unsympathetic as so many in the university sphere are to “big energy,” escalating production costs — driven in part by a sparse labor force — face us every day in utility bills and at the gas pump. Jack Kaskey reported in the *Start-Telegram* April 1, 2014, that “Chevron Phillips’ ethylene and polyethylene plastics plants will cost \$1 billion more than the original \$5 billion estimate, primarily because of higher labor costs.”

Unfortunately, economic hills and valleys put many skilled workers in energy and construction on a precarious roller coaster of plenty or scarcity. Universities should belly-up-to-the-bar and offer management and leadership insight, wisdom and education necessary for increasing job opportunity on an individual’s career journey. And colleges should focus on people 18 and fresh from the prom,

or 35 with a journey person’s card in pocket. Dexterity and nimbleness are required, with academic excellence as true north for all students.

These ponderings are not the exclusive domain of Ivy League economists and educational leaders. Woody Smith, of Cottondale, Ala., recently penned this plea to *The Tuscaloosa News*: “I have tried for the past two decades to stress the importance of career tech education for our area high schools. America continues to have a shortage of skilled trades workers. These skilled trades are losing workers every day as the baby boom generation retires.”

Our universities have a leadership mantle to map with meaningful measures to mediate this national dilemma, or risk diminished voice as partners for intellectual and economic progress.

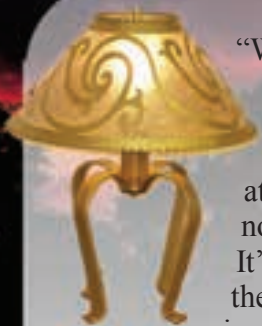
Three things are required:

- 1) encourage students uninterested or underprepared for college to find alternative routes to careers that may not require a college degree,
- 2) respond to the changing needs of workers who begin professional life as electricians, or carpet installers, and decide they want to study engineering or business,
- 3) embrace offerings that meet the student needs one-at-a-time rather than a one-size-fits-all model. ■

Walter V. Wendler is Director of the School of Architecture and former Chancellor of Southern Illinois University Carbondale. He writes columns on issues related to higher education and posts them weekly at <http://walterwendler.com/>.



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Sen. Righter receives 2014 Illinois Electric Cooperatives (IEC) Public Service Award

At the headquarters for Coles-Moultrie Electric Cooperative in Mattoon on August 28, State Senator Dale Righter (R-Mattoon, 55th District) received the 2014 Illinois Electric Cooperatives (IEC) Public Service Award. The award was made in recognition of Sen. Righter's dedicated public service to all citizens of the state of Illinois and for outstanding contributions to the rural electrification program.

Sen. Righter has been a good friend of the electric cooperative program since first being elected to the IL General Assembly in 1998. He has been a strong voice for downstate and rural Illinois.

Sen. Righter's 55th District includes service territory of Clay Electric Co-operative, Inc., Coles-Moultrie Electric Cooperative, EnerStar Electric Cooperative, Norris Electric Cooperative, SouthEastern Illinois Electric Cooperative, Inc. and Wayne-White Counties Electric Cooperative. ■



Electric co-op adds more solar energy resources

Dairyland Power Cooperative is once again expanding its renewable energy resources with the addition of another commercial solar project. The new solar installation will be approximately 520 kilowatts (kW), and could produce enough energy to power nearly 60 homes.

"For many years, we have been steadily adding renewable resources to our system while balancing reliability and affordability for our members," said Bill Berg, President and CEO. "Solar powered generation was part of our long-term resource plan, and this project is a good fit with Dairyland's overall strategic plan."

This project expands and complements Dairyland's already diverse renewable portfolio (wind, biogas, biomass, hydro, solar). Its renewable resources provide about 12.5 percent of the energy delivered to its members.

Dairyland also purchases the excess energy output from a 368 kW solar generation facility owned by the City of Galena, Ill., and a number of smaller distributed generation projects. There are over 350 customer-owned solar photovoltaic facilities in the Dairyland system across Wisconsin, Iowa, Minnesota and Illinois and that number continues to grow. ■

Investing in rural business through Illinois electric co-ops

The USDA understands that rural electric cooperatives are often leaders in their communities and the importance of economic development to the communities they serve. To invest in infrastructure that will expand opportunity for all Americans, Agriculture Secretary Tom Vilsack awarded organizations in 14 states loans and grants to support rural infrastructure, job creation efforts and business development. Western Illinois Electrical Coop. and Illinois Rural Electric Cooperative were two of the recipients of the zero-interest development loans.

The funding is being provided through USDA's Rural Economic Development Loan and Grant (REDLG) program. Under this program, USDA provides zero-interest loans and grants to utilities that lend funds to local businesses for projects to create and retain employment in rural areas.

Western Illinois Electrical Coop. received \$1,000,000 to fund construction of a grain mill/pelletizing plant for Dearwester Properties, LLC. The project will consist of a 10-acre site that will house a feed mill operated by Nutrition Services, LLC.

Illinois Rural Electric Cooperative received \$200,902 to renovate the Pike County Health Department and construct a 3,700-square-foot addition. It also received \$833,600 to help Harpole's Heartland Lodge build three luxury cabins to increase occupancy at its resort and hunting outfitting business. ■



Energy consumption to inch up

Residential sales of electricity in 2014 are expected to average 2.1 percent more than in 2013, according to the latest Short-Term Energy Outlook from the U.S. Energy Information Administration (EIA). In order to meet the growing demand, EIA expects U.S. generation to grow by 1.1 percent from 2013 to an average 11,200 gigawatt-hours per day. Natural gas prices have crept higher than 2013 prices, causing the average U.S. share of natural gas-fired generation to fall to 23.5 percent in the first quarter, compared with 25.6 percent during the same quarter last year. The share of

coal-fired generation picked up most of the decline, rising from 40 percent during the first quarter of 2013 to 42.5 percent during the first quarter of 2014, according to EIA.

“EIA projects total coal consumption growth of 2.5 percent in 2014 because of higher electricity demand and power sector natural gas prices 22 percent above their 2013 level,” EIA reported. “Total coal consumption is projected to fall by 2.7 percent in 2015, as retirements of coal power plants rise in response to the implementation of [U.S. Environmental Protection Agency]

Mercury and Air Toxics Standards, electricity sales growth slows to 0.4 percent and natural gas prices fall relative to coal prices.”

Renewable electricity and heat generation is expected to grow by 2.1 percent in 2014, driven by non-hydro renewables (hydropower generation is expected to fall by 2.8 percent in 2014). Wind power capacity will increase by 7.8 percent in 2014 and 15.3 percent in 2015, according to EIA estimates, contributing 4.6 percent of total electricity generation in 2015. ■

Source: CFC Solutions News Bulletin

Looking for an energizing job?

Careers In Energy Week, October 13-19, 2014, is a week-long celebration of energy careers for students across the state of Illinois to enjoy. The Illinois Energy Workforce Consortium has been working to coordinate the events in Illinois as part of the nationwide effort by the Center for Energy Workforce Development (CEWD), which originated the celebration to increase public awareness of the many careers in the energy field. During Careers in Energy Week, students will be encouraged to learn about how energy companies operate, the types of careers currently available and what may be expected in the future, and the importance of energy companies in the local economy.

The links on this page offer information Illinois teachers may utilize in their classrooms during Careers in Energy week including Illinois Energy Careers data and bar graphs, along with class materials such as handouts and videos.

Members of the Consortium leading the development of activities in Illinois include representatives from the Energy Learning Exchange, Illinois State University, Nicor Gas, AGL Resources, Ameren Illinois, Association of Illinois Electric Cooperatives, ComEd and Exelon Generation, Mt. Carmel Public Utility Company, Peoples Gas, Primera, Itegrys, S&C Electric Company, College of

DuPage, Illinois Energy Association and more.

For more information contact Mary Zitek, AIEC Safety Education Services Coordinator, at mzitek@aiec.coop or go to <http://energy.illinoisstate.edu/careers/> to find out more. ■



Standard will lower energy use from external power supplies



A final rule from DOE that imposes new energy standards for external power supplies (EPS) was published in the Federal Register on Feb. 10. The final rule, which goes into effect Feb. 10, 2016, builds upon EPS standards from 2007.

DOE estimates the new standards will lead to power

savings roughly the equivalent of the annual electricity use of 6.5 million homes. It also estimates families and businesses will save nearly \$4 billion on their energy bills over the next 30 years, while carbon pollution will be reduced by nearly 47 million metric tons over that period. ■

The impact of regulations on you

We've written before about how the Environmental Protection Agency (EPA) regulations for new and existing power plants have the potential to drive up your electric bills. We've also asked that you join other co-op members in making sure the EPA hears your concerns. We need some common sense and concern for consumers inserted in the process. We need affordable and reliable energy.

The clock is ticking for the EPA's 165-day public comment period on its proposed existing plants Green House Gas rule. To date we are moving closer to the goal of one million comments from co-op members. Please go to www.action.coop before the new December 1 deadline and add your comments.

In addition to the cost of these new regulations we are



concerned about reliability. By reducing the overall amount of dependable base-load power generation available, the

EPA is removing a vital safety net that prevents rolling blackouts at times of peak use.

The very coal units that could be shut down in response to this rule were needed to keep the lights on during the Polar Vortex last winter. The proposed

rule adopts an "all-but-one strategy" abandoning the safety of an all-of-the-above strategy. A true all-of-the-above fuel strategy permits utilities to build and operate a portfolio of resources that ensures American families aren't left in the dark. Once power plants are shuttered, there's no magic switch to flip and turn them back on in times of need.

We need you to take a stand and urge our families and friends to join us. Visit www.Action.coop. ■

Electricity prices in Illinois likely to increase

Electricity prices are likely going up in Illinois according to Mark Pruitt an energy consultant and former Director of the Illinois Power Agency. Pruitt says current prices are unsustainable. "Market participants will change how they operate in order to improve profitability," he says.

"In July, Exelon Corp. announced that it would purchase Integrys Energy Services – one of its primary retail electricity supply competitors. The strategy behind the acquisition is to reduce overhead costs and improve profitability."

Other suppliers like First Energy Solutions have announced they are leaving the Illinois market. Pruitt

says, "Press accounts indicate that FirstEnergy was pricing electricity deals at less than cost and could not absorb ongoing losses."

Similar pressures are being experienced by some power plant owners remarks Pruitt. "In March, Exelon Corp. announced that three of its Illinois-based nuclear power plants — Byron, Clinton and Quad Cities — were at risk of shutting down due to their lack of profitability." Exelon's CEO Chris Crane said that without sustainable profits the nuclear plants would have to be shut down to avoid long-term losses. The Illinois legislature will likely consider legislation to address proposed nuclear plant

closings. Nuclear plants supply 48 percent of the power for Illinois compared to 19 percent for the U.S. as a whole.

"My sense is that the value of cooperative membership will become more evident over the next several months as other consumers in Illinois realize higher prices due to fewer viable retail electricity suppliers and they could potentially absorb new surcharges to support the nuclear plants," Pruitt says. "I also believe the transparent and cost-based pricing used by cooperatives could help ensure cooperatives do not find themselves in the same difficult financial straits." ■



Things that go bump in the night



n Halloween, as little ghouls and goblins trick-or-treat from door to door, bumps in the night are to be expected, but those aren't sounds you want to hear on other nights. To protect your home, farm or business, contact your Touchstone Energy cooperative to install a safe and inexpensive security light.



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Co-ops already making
progress in innovative ways

By John Lowrey

Keeping energy costs low is fundamental for non-profit, member-owned electric cooperatives. It's job one. That's why co-ops believe in an all-of-the-above energy strategy, one that incorporates coal, natural gas, nuclear and renewable energy. It also means co-ops have to be very innovative when it comes to development of renewable energy sources, smart grid efficiency technology and energy efficiency programs.

The proposed Environmental Protection Agency's Clean Power Plan requires the reduction of CO₂ emissions by 30 percent overall. To reach that goal the EPA is suggesting four basic measures — improve the efficiency of existing coal-fired plants, increase the use of natural gas fired power plants, expand the use of renewable energy and increase energy efficiency.

Co-ops already have a history of doing

these things when they make economic sense. For example, electric co-ops along with municipal utilities already own the most energy efficient and clean coal plant in the United States. They have purchased renewable energy through a nationwide renewable energy cooperative and developed many innovative renewable energy projects. Co-ops have been early adopters of smart grid technology that helps improve

grid efficiency and have a long tradition of promoting innovative energy efficiency ideas such as geothermal heat pumps.

Going green

Co-ops believe it is critical to have a diversified energy portfolio. That's just common sense. It is also important to continue to develop new sources of energy. For example, co-ops have been involved in methane power development. Methane, also called "cow power" and landfill gas generation, smells bad and is a potent greenhouse gas. It can also be a renewable energy source. Doing a better job of managing waste and generating electricity has many benefits.

Dairyland Power Cooperative, one of five generation and transmission (G&T) co-ops providing power to Illinois electric distribution co-ops, has been a national leader in developing "cow power," helping to better manage waste from dairy farms and adding to its 12.2 percent renewable energy portfolio. Wabash Valley Power Association, another G&T, is working with dairy farmers too, and is recognized as a national leader in developing landfill methane gas generation. Wabash Valley is providing more than 43 megawatts of landfill gas generation and trying to develop more.

Electric cooperatives have doubled their owned and purchased renewable energy capacity since 2009, according

to the National Rural Electric Cooperative Association (NRECA). Co-ops' aggregated total renewable energy capacity has jumped from 2.9 gigawatts in 2009 to 5.9 gigawatts in 2014. This capacity includes power generated from wind, solar, small hydro, biomass, landfill gas and geothermal installations.

"The numbers say it all. Cooperatives are committed to a diverse energy portfolio that



Illinois Rural Electric Cooperative's solar plant is located on four acres south of Winchester. With 2,223 U.S. made panels it is the first utility-scale solar system built by a cooperative in Illinois.

includes an array of renewable energy resources," says NRECA CEO Jo Ann Emerson. "Some credit for this increase goes to the National Renewable Cooperative Organization (NRCO), which enables cooperatives across the country to access cost-effective renewable resources. Owned by Illinois co-ops and others across the country, this is great example of 'cooperation among cooperatives.'"

For a map of all the co-op renewable energy projects check

out www.nreca.coop/wp-content/plugins/nreca-interactive-maps/RenewableEnergy/.

Electric co-ops support the use of incentives to encourage investments in clean energy. In 2005, co-ops worked with Congress to establish the Clean Renewable Energy Bond (CREBs) program. Under this program, the Department of Treasury uses proceeds from the sale of bonds to finance the development of clean energy proj-

ects. Non-profits like electric co-ops can use these incentives in place of production tax credits used by others to develop renewable energy projects.

That's what Illinois Rural Electric Cooperative, Adams Electric Cooperative and Rural Electric Convenience Cooperative did to help keep the cost of their wind turbine and solar farm projects reasonable. Without grants and low cost financing, these projects would have been cost prohibitive.

Illinois Rural Electric Cooperative

recently became the first electric cooperative in Illinois to open a solar energy plant. The Scott County Solar Plant was opened in March and has 2,223 solar panels all manufactured in the U.S. The plant will supply enough electricity for about 170 homes. This innovative co-op was also the first to build a wind turbine in Illinois and won the first Department of Energy sponsored Wind Cooperative of the Year award in 2006.

Cooperative Board President

Robert A. Brown says, “This solar project, in addition to the cooperative’s wind turbine in Pike County and its share of Prairie Power’s (the co-op’s G&T) wind resources, brings Illinois Rural Electric’s renewable resources equal to more than 14 percent of the cooperative’s peak demand. Our renewable portfolio gives us the diversity, which we believe to be critical for the long-term.”

Prairie Power, Inc., Wabash Valley Power Association and Southern Illinois Power Cooperative, G&Ts which are member owners of NRCO, worked together to purchase 40 megawatts of power from the Pioneer Trail Wind Farm near Paxton, Ill. Jay

Bartlett, President/CEO of Prairie Power says, “We are looking for more cost effective projects, like Pioneer Trail Wind Farm, that ensure positive long-term environmental and economic benefits, and assist us in maintaining affordable and stable rates.”

The latest cooperative renewable energy purchase was by Hoosier Energy in August, buying 25 megawatts of energy from Rail Splitter Wind Farm near Bloomington, Ill. Hoosier Energy provides wholesale energy for Wayne-White Counties Electric Cooperative.

It’s not renewable, but natural gas has certainly become more plentiful and affordable. Utilizing more natural gas, which emits half the CO₂ of most coal plants, is one of the areas states can include in their EPA Clean Power Plan. Hoosier Energy and Wabash Valley Power together own one of the three largest combined-cycle natural gas power plants in Illinois. The 630-megawatt Holland Energy plant, located near Beecher City in east-central Illinois, is the second power generating partnership for Hoosier Energy and Wabash Valley Power Association.

Hoosier Energy President and Chief Executive Officer Steve Smith says, “With the costs of new generation rising and demand growing, the Holland plant will produce power at a competitive price. The plant’s clean operations fit well with our existing coal, natural gas and renewable resources.”

David Stuva, President/CEO for Rural Electric Convenience Cooperative, isn’t afraid of taking on new technology whether it is smart grid, renewable energy or energy efficiency. He says, “Technology

continues to improve by leaps and bounds. You have to embrace it and learn how it can improve your service to members.”

Stuva says owning a wind turbine has been a learning experience. The co-op’s wind turbine was built on top of a “gob pile” at an abandoned coal mine just east of Farmersville and off of I-55. The co-op, in addition to believing in trying innovative technology, partners with its members who want to try renewable energy options. All the states’ co-ops have a net metering policy allowing wind and solar to be interconnected with the grid and net metered up to certain limits. The Auburn co-op allows a generous 20 kW of member-owned renewable energy to be net metered.

Stuva says, “Members need to remember it is a mechanical device and you are going to have break downs and outages. You need a good support system from the start and a maintenance agreement. There is probably more expense than you realize. Our wind turbine property taxes were a little higher than I anticipated and insurance was another \$10,000 a year.”

Working smarter

Running the grid more energy efficiently using smart grid technology is another area where co-ops are forging ahead aggressively. More than 95 percent of Illinois co-ops have completed the install of automated metering infrastructure (AMI) — smart meters. Some are even installing new second-generation smart meters.

Using AMI smart meters plus supervisory control and data acquisition (SCADA) technology allows co-ops to fine tune and improve the efficiency of the electric grid. Stuva says the co-op will be able to do a better job of balancing the load equally on three phase lines. “We’ll also be able to do a better job of controlling our peak demand by using conservation voltage reduction and shaving a few volts off to lower our demand.”

Information is the key ingredient for running the grid more efficiently. That real-time data from its AMI systems will help co-ops be more efficient



Journeyman Lineman Bill Hart is working smarter by using real time data and maps using his iPad in the field.

and help members be more energy efficient too. And AMI smart metering will allow better outage monitoring and make it possible to offer new services such as prepaid billing.

"I think for the most part co-ops are not behind the times, they are more on the leading edge," says Stuva.

Stuva says that the older he gets the less he likes to change. "But I try to keep an open mind and realize you can't just keep doing things the way you've always done them. We can do so much more than we could just a short time ago, whether it is the linemen in the field with iPads, or a customer service representative in the office, or even a member checking our live outage map or their account on our website."

So why are co-ops ahead of the curve and innovative? Stuva says, "We are member-focused with local employees, local directors and we serve the members first, not stockholders. Maybe we do a better job of listening to what the members want."

Energy efficiency innovation

For more than 20 years now, Illinois electric cooperatives have focused their energy efficiency efforts on geothermal heating and cooling. The most efficient heating/cooling technology available today, modern geothermal systems, offer efficiencies of up to 500 percent.

More than 20 percent of Adams Electric Cooperative's members heat and cool with geothermal technology. The cooperative's longtime success in promoting geothermal has led media personality and energy efficiency expert Doug Rye to call Adams County the "geothermal capital of the world."

Likewise in south-central Illinois, Tri-County Electric Cooperative has been encouraging co-op members to "go geo." Veteran Member Services Director Bruce Barkau manages a unique program called Certified Comfort Home. More than 225 Tri-County members have built Certified Comfort homes with geothermal systems and Barkau guarantees their energy usage for heating and cooling. "Many of these members have homes with monthly heating or cooling bills



Information Systems Supervisor Tom Jones has seen a lot of changes in his career, but the biggest has probably been "smart meters" like the one he is working on.

of \$40 or less," he says.

The state's largest cooperative, Corn Belt Energy, has about 1,250 members using geothermal systems. Since 2010, the co-op has provided rebates for more than 120 geo systems, totaling more than \$180,000.

At Eastern Illini Electric Cooperative (EIEC), in east-central Illinois, some 1,200 co-op members find that geothermal heating and cooling makes sense.

"There are two main reasons why geothermal has been so successful," says Bob Dickey, EIEC Vice President of Marketing. "Our members save an average of \$1,295 annually in heating, cooling and domestic hot water bills by not using electric resistance heat or propane gas for heating. And our members have told us their geothermal heating and cooling system is much more comfortable than any other type of heating and cooling system they have experienced."

The environment wins too. The EPA has endorsed geothermal by calling it the most efficient heating/cooling technology available today. The EPA has determined that geo uses nearly 50 percent less energy than the very best gas furnaces available. The average geothermal system cuts CO₂ pollution in half, compared to an 80 percent efficient LP furnace/central air combination or a

typical air source heat pump.

Over the past few years Illinois electric cooperatives, in partnership with the Illinois Clean Energy Community Foundation, have helped 47 community organizations such as schools, churches, fire departments and others, install geothermal systems. Combined, the systems have saved more than 8.9 million kWh, which is equivalent to 6,201 metric tons of carbon dioxide.

John Freitag, Executive Director of the Geothermal Alliance of Illinois, says that rural residents especially have every reason to install a geothermal heating/cooling system. "If the alternative is LP gas and central air conditioning, it isn't really much of a decision," Freitag said. "Especially after last winter when we saw LP shortages and price spikes."

Regardless of what happens with the EPA's Clean Power Plan, co-ops will continue to look for innovative ways to provide reliable and affordable electric service. So where can co-ops improve? Stuva says, "We don't do a good enough job of telling our members about the new things we are doing. That is one area all businesses could do a better job, communications with their employees, their customers and the general public. We could all improve on communications." ■

Don't rely on luck to stay safe

Learn how to stay safe in an auto accident with power lines

In April 2013, a Kansas school bus filled with children was driving down the road when it hit a slick spot and collided into a utility pole. With fallen power lines on and around the bus, the driver made the risky decision to evacuate the children. Luckily, the power lines were not energized.

In 2009, two Indiana teenagers, Ashley Taylor and Lee Whitaker also got into a collision with a utility pole. With the vehicle on its side and power lines down, the teens did not know the lines were energized with electricity. These teens were lucky. Just days earlier they were learning about electrical safety at their school. They knew they had to stay in the vehicle.

These two events could have ended in tragedy, but luck saved one and knowledge saved the other.

National School Bus Safety Week is October 20-24, and National Teen Driver Safety Week is October 19-25. It's a good time for making sure that you, your teen drivers, and anyone driving your children knows what to do if there is an auto accident with downed power lines. Luck may not always be on your side.

"When people are involved in a car accident, electricity is usually the last thing on their minds," says Jim Miles, Safe Electricity advisory board member and Safety Instructor for the Association of Illinois Electric Cooperatives. "We're often more concerned about whether anyone was injured or how badly the vehicle is damaged. We can forget that by exiting the vehicle, we're risking bodily exposure to thousands of volts



of electricity from downed power lines."

Power poles carry high and potentially fatal levels of electricity. If you are in an accident with one, your vehicle may be charged with electricity. If you step out, you will become the electricity's path to the ground and could be electrocuted. Loose wires and other equipment may be in contact with your car or near it — again creating a risk for electrocution if you leave the vehicle.

While downed lines can sometimes show they are live by arcing and sparking with electricity, this is not always the case. Power lines do not always show signs they are live, but are just as lethal.

"Our instincts in such a situation may tell us to get away if we can, but in most cases, getting out of the auto when power lines are down can be deadly," explains Miles. "Until utility crews ensure the power is cut off, staying in the vehicle is safest."

After an accident stay in the car, and tell others to do the same. Call emergency and utility services. Do not leave your vehicle until a utility professional has told you it is safe to do so.

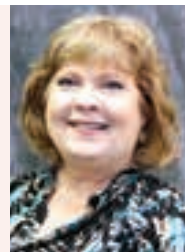
The only circumstance when you should exit the vehicle is if it is on fire. If you must exit the vehicle, jump clear of it with your feet together and without touching the vehicle and ground at the same time. Continue to "bunny hop" with your feet together to safety. Doing this will ensure you will not have different strengths of electric current running from one foot to another.

If you come upon or witness an accident involving power lines, do not approach the accident scene. "Often our inclination is to step in and help those in danger and offer assistance to the injured," Miles says. "However, in accidents involving power poles, the best thing you can do is call for help. Wait for trained assistance to arrive, or you could become an additional victim in need of rescue."

If you see someone approaching, warn them to stay away from the accident until utility professionals and emergency responders have confirmed there are no electrical dangers.

Safe Electricity encourages you to share what you know about electrical safety with friends, family, and new drivers so they will know what to do in a car accident with a power pole. For more information, visit SafeElectricity.org. ■

Molly Hall is Director of Safe Electricity. E-mail molly-hall@SafeElectricity.org. Safe Electricity is a public awareness program of the Energy Education Council. www.EnergyEdCouncil.org



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A matter of taste

Which apple do you prefer?

October and apples go hand in hand. Sure, you may find some apples such as Lodi ripening in July and August, depending on the year. And some won't taste good until they've been stored in the refrigerator or cellar over the winter.

The vast majority of apples, though, come into their prime during October, matching the crispness of the weather with the crispness of their taste.

It should be mentioned right off the bat that not all apples are created equally.

I make no bones about it. Eating a Red Delicious is akin to eating a cardboard box. Sure, there are those that say "Hey, a cardboard box doesn't taste bad." For them, the Red Delicious is okay.

Granted, a Red Delicious is the beauty queen of the apple world, which is not to denigrate beauty queens in any way, shape or form. With its deep red uniform color, perfect upright narrow shape with five bumps on the bloom end, and slight curve to the stem, it's an ad agency's dream of an apple.

Unfortunately, there's nothing there in terms of flavor. It has great moisture content, making it almost perfect for cider; it turns to mush quickly when cooked making it perfect only for applesauce if you don't mind the bland flavor. On the plus side, its thick somewhat bitter skin makes it impervious to all these negative comments. Truly, beauty is only skin deep.

The good news is there are plenty of apples with great flavor.

The first thing to remember is that not all apples are made equally. Some are great for eating fresh. Some are good for making pies. Some are great for making applesauce. Some keep for several months without turning to mush. Some perfume the air when



you take a bite out of them.

Unfortunately, it's almost next to impossible to find one that does all.

So, you need to figure out what you want the apple to do. Will you be putting it in lunches and salads to be eaten raw? Will you be making pies and cobblers where you want some texture and substance and not mush? Will you be grinding everything up for applesauce?

Occasionally, apples such as Honey Crisp will do all three, though just about any apple can be made into sauce if you run it through a food mill. Honey Crisp, though, isn't the longest keeping apple. You'll need to use it by the end of the year, which is one reason you don't find many after the holidays.

On the other hand, apples such as Arkansas Black and Winesap will keep for months and months, even thru the coming summer if kept cold enough.

The old time Jonathan apple

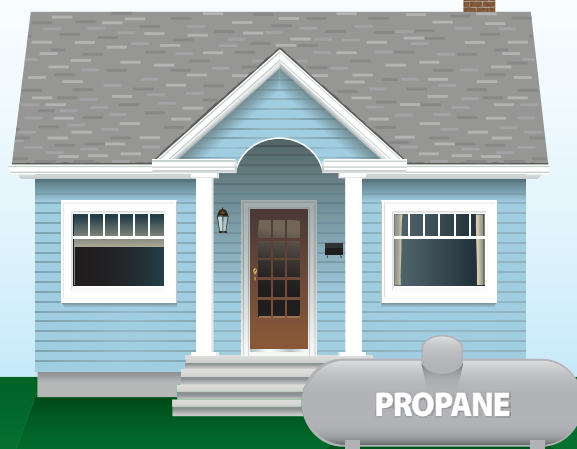
still has much going for it, though newer cultivars (Fuji, Gala and their relatives) have more flavor.

The point is, figure out what you're going to use the apple for, and look carefully at the signs at the market to see what apples correspond. And unlike a car, you can buy several individual apples and do a taste test. It's a fun way to get kids involved.

If you do hit a farmer's market, you may be able to find some of the heirloom types, which always seem to have great taste but lack the photogenic aspect. Once they're in your stomach, though, who cares what they looked like! ■

David Robson is Extension Specialist, Pesticide Safety for the University of Illinois. drobson@illinois.edu





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Cherry Coffee Cake

Cherry Coffee Cake (above)

1 c. butter, softened
1-3/4 c. sugar
4 eggs
1 tsp. vanilla
3 c. flour

1-1/2 tsp. baking powder
1/2 tsp. salt
2 – 21 oz. cans cherry pie filling
Powdered sugar

Beat butter, sugar, eggs and vanilla at medium speed about two minutes until light and fluffy. Combine flour, baking powder and salt, adding gradually to creamed mixture. Beat well. Spread in greased 11x15" jelly roll pan, saving about 1-1/2 c. batter for topping. Spread cherry pie filling over dough to edges of pan. Spoon rest of dough over cherries. Bake at 350 degrees for 45 minutes. Sprinkle with powdered sugar before serving. Cut in squares.



Portuguese Bean Soup

Just What the Doctor Ordered!

Who: Peoria Medical Society Auxiliary, Inc.

Cost: \$20.95 includes shipping

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Pages of recipes: 268

Send checks to: Mary Clare Geraghty,
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Cheese Casserole

2 – 4 oz. cans diced green chilies,
drained
1 lb. Monterey jack cheese, coarsely
grated
1 lb. cheddar cheese, coarsely grated
4 egg whites
4 egg yolks
2/3 c. evaporated milk
1 T. flour
1/2 tsp. salt
1/8 tsp. pepper
2 med. tomatoes, sliced

Preheat oven to 325 degrees. In a large bowl combine the grated cheeses and the green chilies. Turn into a well-greased shallow 2-quart casserole (12x8x2"). In a large bowl beat egg whites just until stiff peaks form when beater is lifted. In a small bowl combine egg yolks, milk, flour, salt and pepper. Mix until well blended. Gently fold beaten egg whites into egg yolk mixture. Pour egg mixture over cheese mixture in casserole. With a fork, ooze it through the cheese. Bake 30 minutes. Remove it from the oven and arrange tomato slices, overlapping, around edge of casserole. Bake 30 minutes longer or until brown.

Portuguese Bean Soup (left)

24 oz. Portuguese sausage, sliced in
1/4" pieces or substitute with hot
Italian and smoked sausage
1/2 c. smoked ham, diced
1/2 c. onions, diced
1/2 c. carrots, diced
1/2 c. celery, diced
1/2 c. cabbage, diced
1/2 c. bell peppers, diced
1 c. potatoes, diced
3 c. canned red beans, drained
2 qts. tomato juice
2 qts. water
2 bay leaves
Salt, pepper, liquid smoke to taste

Saute all meat, then vegetables. Add red beans, liquids and spices. Cook slowly for 2 hours. Remove bay leaves and serve.



Lasagna Rolls

Lasagna Rolls (above)

Bechamel Sauce:

- 2 T. unsalted butter
- 4 tsp. all-purpose flour
- 1-1/4 c. whole milk
- 1/4 tsp. salt
- 1/8 tsp. ground black pepper
- Ground nutmeg, to taste

Lasagna:

- 1 – 15 oz. ricotta cheese
- 1 – 10 oz. pkg. frozen spinach, thawed and squeezed dry
- 1 c. plus 2 T. grated Parmesan cheese
- 1/2 lb. ground beef or sausage, browned
- 1 lg. egg, beaten
- 3/4 tsp. salt
- 1/2 tsp. ground black pepper
- 1 – 2 T. olive oil
- 12 uncooked lasagna noodles
- 2 c. marinara sauce
- 1 c. (4 oz.) shredded mozzarella

For sauce, melt butter in saucepan over medium-low heat. Add the flour and whisk for 3 minutes. Whisk in milk. Increase the heat to medium-high. Whisk the sauce until it comes to a simmer and is thick and smooth, about 3 min. Whisk in the salt,

pepper and nutmeg (if desired). For lasagna, preheat oven to 450 degrees. Whisk the ricotta, spinach, 1 c. Parmesan, ground beef, egg, salt and pepper in a medium bowl to blend. Add a tablespoon or two of oil to pot of boiling water and boil the noodles til al dente. Drain. Arrange the noodles in a single layer on a baking sheet to prevent them from sticking. Butter a 13x9x2" baking dish. Pour the béchamel sauce over the bottom of the prepared dish. Lay out 4 lasagna noodles on a work surface, then spread a large spoonful (about 3 T.) of ricotta mixture evenly over each noodle. Starting at one end, roll each noodle like a jelly roll. Lay each roll in pan seam side down without touching. Repeat with other noodles. Spoon 1 cup of marinara sauce over the lasagna rolls. Sprinkle with mozzarella and remaining 2 T. Parmesan cheese. Cover tightly with foil and bake until heated through and the sauce bubbles, about 20 minutes. Uncover and bake until the cheese on top becomes golden, about 15 min. longer. Let stand for 10 minutes. Meanwhile, heat the remaining marinara sauce to serve alongside.

Oven Roasted Vegetables

- | | |
|--|--|
| <ul style="list-style-type: none"> 1 bundle asparagus, snapped into pieces 1 sm. bag snow peas 2 med. yellow squash 1 zucchini 1 sm. bag baby carrots 1 pt. grape or cherry tomatoes | <ul style="list-style-type: none"> 1 sm. bag baby red potatoes 1/4 c. extra virgin olive oil 2 T. fresh rosemary, chopped 2-1/2 T. fresh basil, chopped Mrs. Dash seasoning 1-1/2 T. garlic salt |
|--|--|

Preheat oven to 425 degrees. Cut squash and potatoes into chunks. Mix all vegetables in large bowl. Sprinkle with olive oil and add all of the seasonings, adding Mrs. Dash to taste. Fold all of the vegetables and seasonings until well-coated. Place vegetables in deep baking dish. Cover the dish with foil and bake for 30 minutes. Remove foil and bake for 10-15 minutes or until vegetables reach your preferred tenderness.

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Pork Loin with Apples and Pears

- 3 lb. boneless pork top loin roast
- 2 tsp. black pepper
- 1 tsp. salt
- 1 tsp. garlic powder
- 2 T. olive oil
- 3 apples, cut in halves, wedges or slices
- 2 red pears, cut in halves, wedges or slices
- 2 T. sugar
- 1/3 c. molasses
- 2 T. red wine vinegar
- 1 T. reduced-sodium soy sauce

Preheat oven to 425 degrees. Line a shallow roasting pan with heavy foil, lightly oil foil. Place meat rack in pan and set aside. In bowl combine pepper, salt and garlic powder. Brush pork with 1 T. olive oil and rub with pepper mixture. Place pork on rack in roasting pan and roast 35 minutes. Meanwhile for glaze: in skillet combine molasses, vinegar and soy sauce. Bring to boiling, reduce heat and simmer 1 minute. Remove to bowl. Set glaze and skillet aside. Remove pork from oven and brush pork with some glaze (reserve 2 T. for fruit). Continue roasting 10 minutes and glaze again. Continue roasting until thermometer inserted registers 150 degrees F. Remove from oven, cover with foil and let stand 10 minutes before slicing. Meanwhile, in skillet used for glaze, heat 1 T. olive oil. Toss fruit with sugar. Add fruit to skillet, cover and cook 2 minutes. Uncover and cook 3 minutes more or until crisp-tender. Add reserved glaze, heat through. Serve pork with fruit and drizzle with pan juices. Serves 8.

Visit www.icl.coop to see more Illinois Country Living recipes.

Recipes prepared, tasted and photographed by Valerie Cheatham. For more recipes and photos go to www.icl.coop. Questions? Email finestcooking@aieccoop.org.



What's hot and what's not

Part two

Last month we discussed the hot topic of attic encapsulation. Well, there is another hot topic I would like to cover and that is geothermal heating and cooling. There is not a day that goes by that I don't get questions about geothermal. It used to be the only geothermal question I received was, "What is geothermal and how does it work?" Now the question is usually about how to find a reliable dealer or whether or not geothermal is feasible for a particular situation. Many callers know someone who is happy with their geothermal system, particularly the system's comfort and affordable operating costs.

Many energy efficiency experts agree that geothermal systems are the most efficient heating and cooling systems on the market today. Properly sized, designed and installed, geothermal units provide efficient cooling and heating for your house or business at a fraction of the cost of natural gas, propane or electric resistance systems.

Some callers wonder if they can afford a geothermal system. Well, in many cases it is feasible and folks can afford it. And in some other cases it is feasible, but folks cannot afford it. In a few cases, it simply is not feasible. Let me explain how we decide the feasibility of installing a geothermal system by using a few examples.

Example No. 1

A homeowner would like to install geothermal in his new 2,500-square-foot house. The house will be built to high energy efficiency standards and even includes triple glazed windows and attic encapsulation. The basic heating and air contractor has already made "guess-timation" for a 5-ton, high efficient heat pump system at a cost of \$13,300. However,

this knowledgeable homeowner insisted on a Manual-J load calculation to determine the exact heating and cooling loads based on the high-energy efficiency proposed construction methods and materials. Requesting a Manual-J load calculation eliminates the guesswork.

The house really only needed a 2.5-ton system, and a geothermal system could be installed for about \$17,000. Okay, that figure seems rather high. Now, let's apply the 30 percent federal tax credit, which equates to about \$5,100. Now let's calculate the actual end user cost for installation. The initial cost of the geothermal is \$17,000. Now subtract the \$5,100 tax credit. The final cost for the best heating and cooling system available is \$11,900. This situation is far better than investing \$13,000 for an air-source heat pump! And now this homeowner gets most of the household hot water for free.

Example No. 2

A homeowner with an older house needs to replace an old heating and cooling system and is determined to install geothermal. After a rather long conversation it was obvious that this existing house needed several energy efficiency improvements. Remember that energy efficiency improvements are nearly always a better investment than heating and cooling systems because the improvements require no fuel to perform, require no maintenance and typically last for the life of the house. We determined that a \$5,000 investment for efficiency improvements could save about



\$9,000 on the initial cost of a smaller "properly sized" geothermal system. Improving the inefficiencies within the home meant a lower British thermal unit (BTU) requirement from the new geothermal system. Now the homeowner has a comfortable home, with the best heating and cooling system, with lower operating costs.

Example No. 3

Another homeowner was really excited about possibly retrofitting geothermal into the existing home. After asking the usual questions, we concluded the 1,500-square-foot all-electric home was very energy efficient with monthly bills that averaged \$100. Plus, the heating and cooling system was original and both home and system were only 13 years old. Since the existing system was still functioning properly and the bills were very reasonable, I suggested that the homeowner focus on hobbies because the investment in geothermal was simply not feasible on this house.

Find out if geothermal is feasible for your home by contacting the member services representative at your local electric cooperative. ■

Doug Rye can be heard on several different Illinois radio stations. You can go to Doug Rye's Web site at www.dougrye.com, e-mail him at info@philliprye.com, or call 501-653-7931.



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Preserve the harvest for winter meals and holiday gifts

by Melinda Myers

The cucumbers have filled the vegetable drawer, you've run out of cabbage recipes and your family is refusing to eat one more BLT. Or maybe you just couldn't resist that special deal on a bushel of tomatoes, potatoes or apples at the farmer's market. So what is a gardener or shopper to do with all that produce?



Since properly stored vegetables will hold their flavor and nutritional value longer than those left in a plastic bag or set on the sunny kitchen counter, consider preserving some for the long winter ahead using one of several methods.

Storage orchard racks and slatted crates placed in a cool dark location have long been used to store squash, onions and potatoes. The stackable nature or drawers provide ample storage space, so fruits and vegetables do not touch. Keeping stored fruit separated prevents rot from spreading from one fruit to the next. Plus, the slatted sides allow airflow to extend storage longevity.

Those in colder climates can store their carrots and parsnips right in the garden. Once the soil gets a bit crunchy, cover them with straw or evergreen boughs for easier digging in winter. Then dig as needed or harvest during the first winter thaw. If this isn't possible or not your style, try out a root vegetable storage bin. The root crops are layered in sand or sawdust and placed in a cool dark location. Just remove and use as needed. No snow shoveling needed.

Drying is one of the oldest food preservation techniques. Most of us have grabbed a few bundles of herbs to hang and dry. Expand your drying endeavors to include fruits and vegetables. The goal is to quickly remove moisture without cooking the food. You can make your own dehydrator or purchase one. Research has shown that blanching vegetables

and fruit before drying helps destroy harmful bacteria. Blanching involves a steam or boiling water bath followed by a cold water bath. Timing varies with the fruit or vegetable you are preparing.

Another ancient food preservation technique, fermentation, is experiencing a comeback. Cultures around the world have fermented fruits and vegetables for thousands of years. Unique flavors, storage options and health benefits have many gardeners revisiting this tradition. Fermenting cucumbers into pickles, cabbage into sauerkraut, and berries into preserves are just a few options. The ingredients can be as simple as water, salt and spices. All you need is a vessel, vegetables and fermenting culture. You can jump-start your efforts with a fermentation crock kit (gardeners.com) which includes the crock, cover and weights to make sure your veggies stay safely submerged in water.

Or quickly lock in the flavor and nutrition of your fruits and vegetables with freezing. You'll need airtight containers or bags that are durable, don't leak and won't become brittle in cold temperatures. Some produce does not freeze well and others may need to be blanched before they are packed in the freezer bag or container. But frozen items can easily be retrieved from the freezer and included in your winter meals.

Canning is a bit more involved, but can be lots of fun. This process preserves the food and keeps it safe by preventing the growth of undesirable bacteria, yeast and mold. The sealed jars keep the flavor in and bad microorganisms out. So gather your produce, jars, pressure cooker, canner and friends to create tomato sauce, salsa, jams and jellies to enjoy or give as gifts.

Whatever method you choose, do a bit of research before you start. You'll have greater success and a lot more fun. The National Center for Home Food Preservation website, <http://nchfp.uga.edu>, provides all the basic information for storage and food preservation.

Gardening expert, TV/radio host, author & columnist Melinda Myers has more than 30 years of horticulture experience and has written over 20 gardening books, including *Can't Miss Small Space Gardening* and the *Midwest Gardener's Handbook*. She hosts *The Great Courses "How to Grow Anything"* DVD series and the nationally syndicated *Melinda's Garden Moment* segments. Myers is also a columnist and contributing editor for *Birds & Blooms* magazine. Myers' web site, www.melindamyers.com, offers gardening videos and tips.



Think safety first!

The National Center for Home Food Preservation (NCHFP) is a great source for current research-based recommendations for most methods of home food preservation. The Center was established to address food safety concerns for those who practice and teach home food preservation and processing methods. The following are a few suggestions from the NCHFP. For more information go to: <http://nchfp.uga.edu/>

Drying

Store dried foods in clean, dry home canning jars, plastic freezer containers with tight-fitting lids or in plastic freezer bags. Vacuum packaging is also a good option. Pack foods in amounts that can be used all at once. Each time a package is re-opened, the food is exposed to air and moisture that can lower the quality of the food and result in spoilage. Dried foods should be stored in cool, dry, dark areas.

Freezing

For the best quality, freeze and store food at 0°F or lower. Freeze foods as soon as they are packed and sealed and do not overload the freezer with unfrozen food. Leave space among new, warm packages so the cold air can circulate freely around them. When the food is frozen, stack and store the packages close together if desired.

A good policy to remember and follow is "first in, first out." Rotate foods so that you use the older items first and enjoy your food at its best quality.

Canning

Pressure canning is the only recommended method for canning meat, poultry, seafood and vegetables. Growth of the bacterium *Clostridium botulinum* in canned food may cause botulism—a deadly form of food poisoning. These bacteria exist either as spores or as vegetative cells. The spores, which are comparable to plant seeds, can survive harmlessly in soil and water for many years. When ideal conditions exist for growth, the spores produce vegetative cells which multiply rapidly and may produce a deadly toxin within three to four days of growth in an environment consisting of a moist, low-acid food, a temperature between 40° and 120°F and less than two percent oxygen.

Botulinum spores are on most fresh food surfaces. Because they grow only in the absence of air, they are harmless on fresh foods.

Most bacteria, yeast and molds are difficult to remove from food surfaces. Washing fresh food reduces their numbers only slightly. Peeling root crops, underground stem crops, and tomatoes reduces

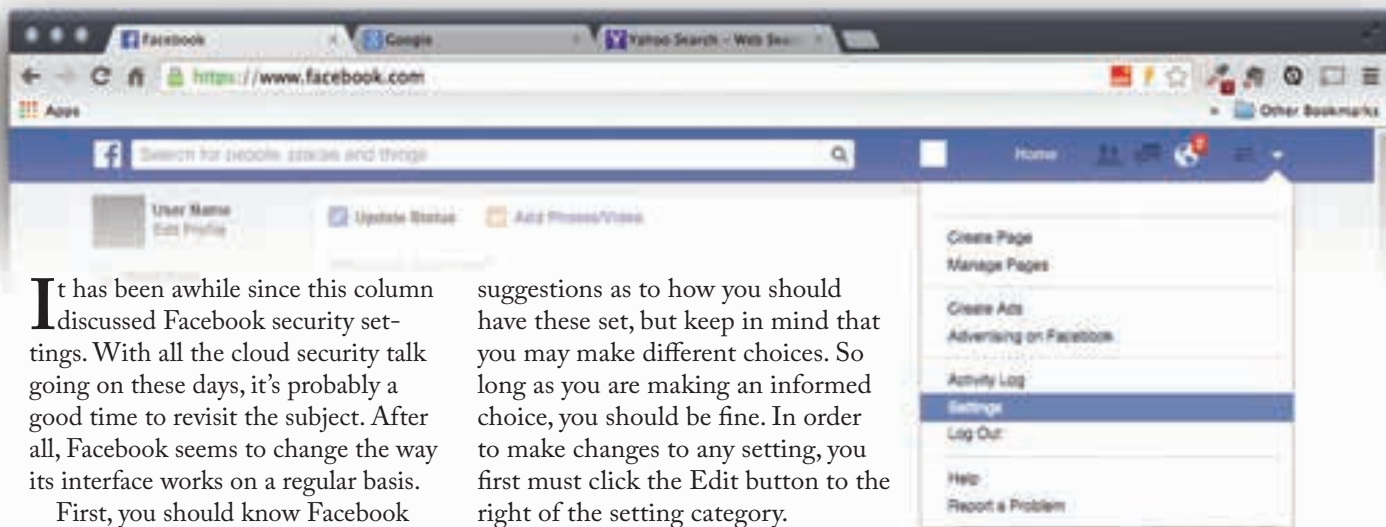
their numbers greatly. Blanching also helps, but the vital controls are the method of canning and making sure the recommended research-based process times found in the USDA's Complete Guide to Home Canning are used.

Fermentation

The level of acidity in a pickled product is as important to its safety as it is to taste and texture. 1) Do not alter vinegar, food or water proportions in a recipe or use a vinegar with unknown acidity. 2) Use only recipes with tested proportions of ingredients. 3) There must be a minimum, uniform level of acid throughout the mixed product to prevent the growth of botulinum bacteria.

Pickle products are subject to spoilage from microorganisms, particularly yeasts and molds, as well as enzymes that may affect flavor, color and texture. Processing the pickles in a boiling-water canner will prevent both of these problems. Standard canning jars and self-sealing lids are recommended. Processing times and procedures will vary according to food acidity and the size of food pieces.

Facebook security and privacy settings



It has been awhile since this column discussed Facebook security settings. With all the cloud security talk going on these days, it's probably a good time to revisit the subject. After all, Facebook seems to change the way its interface works on a regular basis.

First, you should know Facebook categorizes security and privacy as different items. Security covers those items best thought of as having to do with maintaining the security of your account in general. On the other hand, privacy deals mostly with the content you choose to share on Facebook. In short, security settings help keep people from accessing your account, while privacy settings help keep those pictures of your family reunion just between friends. This month we're going to focus on the first few of your Facebook security settings. Next month we will finish those settings and then move on to privacy.

So, how should you have your security settings fixed?

In order to change both your security and privacy settings, as well as other settings, perform the following steps:

1. Log into Facebook.
2. Click the small arrow in the upper right corner.
3. In the drop-down menu that appears click "Settings."

You should now be able to see a page that lists both Security and Privacy on the left of the screen. In order to adjust your security settings, go ahead and click Security. You will notice several different categories appear on the right-hand side.

I'm going to make some

suggestions as to how you should have these set, but keep in mind that you may make different choices. So long as you are making an informed choice, you should be fine. In order to make changes to any setting, you first must click the Edit button to the right of the setting category.

So, let's click Edit to the right of Login Notifications.

You should now see a couple of boxes you can check. You have the option to be contacted when someone logs into your account from a new device. You can choose to be notified by e-mail or text message. I definitely recommend you choose one or the other. This step won't prevent your account from being compromised, but it will certainly help you fix the problem faster.

Note that once you choose an option, you will probably be prompted to provide your password again. Go ahead and do so, and then follow the prompts to continue setting up notifications. The next setting is Login Approvals.

Login Approvals will make it so anyone accessing your account from an unknown browser (one you haven't used to access Facebook in the past) must receive a code at the phone number you choose. Without the code, they will be denied access even though they have the right Facebook password. Keep in mind, if you travel frequently, and use many different computers to login, this setting may prove to be tedious for you. However, for most people this is a good setting to enable. Keep in mind that you need to have a phone capable of receiving texts in order for this to work.

The next setting, Code Generator, is

only available if you have the Facebook mobile app. The code generator allows you to use your mobile app to generate a code that must be used in order to log into Facebook on a computer. Then you have to enter the number provided by the app, along with your password, in order to login to Facebook on a computer. I do not personally use this setting, as I find it tedious, but you may think differently. If you do, it's definitely a good way to secure your account. Just don't lose your phone!

Next month, we will continue this discussion, but in the meantime, feel free to browse ahead and check out the other settings. You may be surprised by what you find!



Reply Online

Have a technology issue and want some advice? Visit www.icl.coop and click on Powered Up to respond. Your response might even be included in a future column.

Ed VanHoose is the
EVP/GM at Clay Electric
Cooperative, Inc. in Flora



edv@ceci.coop

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- 4) Mail to: Illinois Marketplace, P.O. Box 3787, Springfield, IL 62708, by deadline.

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The Cowboy Co-op

The history of electric co-ops

By Tom Tate

October is National Co-op Month, so it seems fitting for co-op members to look back to our beginnings and reflect on the reasons for the creation of electric cooperatives. This is a remarkable story that demonstrates the exceptional nature of the Americans who populated rural America, then and now.

Nineteen hundred and thirty five. It's hard to imagine what life was in rural areas in those days, especially through the lens of our 21st century existence – news taking days to reach you, dirt roads, manual labor and no electricity. Life for a large portion of the American population was, for all intents and purposes, a frontier life.

Rugged people making a living by strength, persistence and hard, often crushing, work. Relying on their neighbors when things got tough. A way of life alien to most of us today, although a few are still around who remember when the lights first came on. While 95 percent of urban dwellers had electricity, only one in 10 rural Americans was so blessed.

It was in this same year on May 11 when President Franklin Delano Roosevelt signed executive order 7037 creating the Rural Electrification Administration (REA). Immediately, “cowboy” cooperatives took the bit in their teeth and started putting together electric cooperatives all across America.

Some might think that so-called “cowboy co-ops” would be restricted to the West, but the case can be made that every cooperative was formed by the cowboys of their area. Tough, self-reliant, hardworking, honest, resilient men and women willing to take bold action to create a better life for their families. They were working together for their neighbors and for their communities.

The term “cowboy” conjures up Hollywood images of hard fighting, hard drinking, rugged individuals fighting injustice against great odds. Today, it can also be a



As we celebrate Co-op Month in October it is a good time to look back at the cowboy work ethic that helped build electric co-ops. We'll need that same cowboy ethic to meet the challenges of the future.

judgmental term describing someone who is unpredictable and unsophisticated in their actions.

While the actual character of the cowboy cooperative didn't reflect the Hollywood image, the cooperative model matched the cowboy ethic perfectly. A book written by a retired Wall Street executive, James Owen, captured this ethic and boiled it down to the following 10 points:

- 1) Live each day with courage.
- 2) Take pride in your work.
- 3) Always finish what you start.
- 4) Do what has to be done.
- 5) Be tough, but fair.
- 6) When you make a promise, keep it.
- 7) Ride for the brand.
- 8) Talk less and say more.
- 9) Remember that some things aren't for sale.
- 10) Know where to draw the line.

Seems just another way of laying out the cooperative principles that we run our businesses by to this very day. It appears that cowboys and cooperatives were a natural fit.

So these cowboys got busy organizing electric cooperatives and began the work of bringing light to rural America. They dug holes by hand. They walked the poles up into place to carry the electric lines. All this had to be

done with picks, shovels, ladders and whatever else was handy. Most of us have seen these poignant photographs, sepia images of remote places with men scrambling to light the rural landscape. Wires had to be man handled into place on the poles and cross arms. Creating the proper tension and securing the conductors to the insulators was all done by main strength and by sight. And when the lines were damaged either by man or nature, it all had to be redone the same way.

Safety equipment was non-existent. The hard hat was gradually being introduced, and the first job site to mandate their use was the Hoover Dam where falling debris was responsible for many deaths. Fire retardant clothing wasn't even a glimmer in anyone's eye and climbing poles often involved ladders rather than spikes and safety belts. Many of these cowboys gave their lives to bring the benefits of electricity to their homes and communities.

Once power was flowing, members reported how much they used and the cooperative sent them a hand-prepared bill by regular RFD mail. No automatic meter reading systems or computerized billing options. Ledgers formed the permanent record of transactions.

Today these tasks are completed using digger and bucket trucks assisted by mechanized tensioners. Distribution systems are controlled by smart devices, and cooperatives can provide more consistent levels of service and quality at a much lower cost. The work remains dangerous and arduous, but modern safety tools, clothing and practices reduce the risk substantially. And technology continues to improve our ability to control system operation and costs while continuously improving quality and member service. Automated systems abound that improve the accuracy of bills and simplify data management.

Given all that has happened, some might think the cowboy cooperative is a thing of the past. But they would be wrong to think that. The cowboy cooperative is needed just as much in 2014 as it was in 1935. Changes are sweeping through the electric utility industry, and if the cooperatives are to retain the benefits that electrification has brought to rural America, bold, decisive action by a new breed of cooperative cowboy will be required.

A new generation of members is coming onto cooperative lines.

Members who saw electric co-ops as "saviors" by bringing in the simple benefits of light, refrigeration and other appliances are fading into memory. We must now wrestle with the perception of just being another utility to some.

Community involvement is a staple of every co-op. It's in their DNA. It means improving where we live and work beyond the simple provision of power. As these efforts continue, we recognize that community for many of our new members resides on the Internet – a collection of electronic representations of individuals rather than meeting in person. New members expect immediate response and limitless information. It is a challenge worthy of a cowboy response.

Engaging our membership in the future will be challenging, but so was bringing electricity to rural America. While the tools differ, the cowboy cooperative mindset and ethic have not changed. Think about the points James Owen identified. They reflect values still consistent with the seven cooperative principles and underscore the relevance of the cowboy co-op in facing today's challenges.

The frontier life of today is different indeed. In the 21st century, this still means employees and members alike will be pitching in and doing whatever they can individually and collectively to be sure that the interests of our community are well served and that electricity remains affordable and reliable.

Tom Tate 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.



1-2 37th Annual Heritage Festival, Southeastern Illinois College, 3575 College Rd., Harrisburg. Crafts, gifts, food, art and some heritage crafts will be available from 9 a.m.-4 p.m. on Sat. and 10 a.m.-4 p.m. on Sun. Free admission and parking and handicapped parking is available. Free concert in the Student Center at 2 p.m. both days by the Wil Mar- ing Duo. 618-252-5400 ext. 3213.

7-9 28th Annual Greater Down- state Indoor Bluegrass Festival, Crowne Plaza Hotel, 3000 S. Dirksen Pkwy., Springfield. Order advance weekend pass by Oct. 25 for \$60. Reserved seating and \$55 general admission. Send to: Bluegrass Festival, P.O. Box 456, Jacksonville, Ill. 62651 or call 217-243-3159. Features award-winning artists from across the nation. Acoustic instrument workshops, youth/adult guitar show, music- related vendors and jamming on open stage. \$10 fee includes all workshops. Bluegrass talent show and open stage Sat. at 10:30 a.m. For more info, 217-243-3159 or www.bluegrassmidwest.com.

8 29th Annual Savanna Woman's Club Gift & Craft Fair, 2215 Wacker Rd., Savanna. Indoor event with over 60 crafters, free onsite parking, breakfast and lunch available for purchase. All money raised goes back into the community. \$1 admission. 9 a.m.-3 p.m. 815-273-7376 or savannawomansclub@yahoo.com.

8 Home for the Holidays Arts & Crafts Fair, Geneseo Middle School, 303 E. Ogden Ave., Geneseo. Get into the holiday spirit and shop for that someone special or find that unique decoration to make your house a home. \$2 admission, students free. 309-944-2686 or www.geneseo.org.

8-9 John A. Logan College Autumn Fest, 700 Logan College Dr., Carterville. This annual event features over 100 original, hand- made arts and crafts, great food, free admission and parking. 800-851-4720, ext. 8287 or www.jalc.edu/activities.

12 Widmark Wednesday, Princeton Public Library, 698 E. Peru St., Princeton. Come see a free movie the 2nd Wednesday each month featuring Princeton's own movie star, Richard Widmark, who graduated in 1932 from Princeton High School. 6:30 p.m. RediscoverRichardWidmark@gmail.com.

21 Shelbyville Festival of Lights, Forest Park, Shelbyville. Open- ing Nov. 21 and running through Dec. 27, Sun.-Thurs. 5:30-9 p.m., Fri.-Sat. 5:30-10 p.m. Half a mile drive through the park are more than 400 individual brightly lit displays with more than 30 dis- plays animated. The lights thrill thousands of visitors each year. Donations only and go through as many times as you like. Bly2599@yahoo.com or 217-259-2361.

22 WCHCE 35th Annual Holiday Craft & Home Show, Mon- mouth. Crafts at American Legion, 1110 N. 11th St. and VFW, 830 N. "G" Street. Home- based business show and bake sale at Farm Bureau Building, 1000 N. Main St. Local authors will have book signings from 1-3 p.m. \$1 admission includes all three shows and over 100 crafters. 309-351-4789 or cdfedorow@frontiernet.net.

22-23 32nd Annual Country Christ- mas Craft Show, Gordyville USA, Rt. 136 East, Gifford. This annual show brings together

more than 500 vendors and offers two days of "shop til ya drop" fun so you can find that perfect gift for everyone on your list. Parking is free and admission is \$1. www.gordyvilleusa.com or 217-568-7117.

28 Christmas at Clover Lawn, David Davis Mansion, 1000 Monroe Dr., Bloomington. Weds.-Sun. 9 a.m.-4 p.m. from Nov. 28 through Dec. 31. Free, donations requested. The mansion is lavishly decorated for Christmas. Visitors will view authentic Victorian-era decora- tions, including the same kinds of ornaments that were featured on the Downton Abbey Christmas tree during several episodes. www.daviddavismansion.org or 309-828-1084.

29 Christmas in Paris, Downtown Paris. Events will take place throughout the afternoon and evening. Highlights include a visit with Santa, free movie, live reindeer and petting zoo, a Christ- mas Village with many quality vendors, family-friendly activities in many of the storefronts, scaven- ger hunt, horse and carriage rides and a Christmas parade. Stay up- dated on events and times at facebook.com/christmasinparis.

29 Ol' Fashion Christmas, Veteran's Park, Front Street, Galva. Break- fast with Santa, make-and-take ornaments for kids, carriage rides, candy cane hunt and a taste and buy at the chocolate fair. The parade begins at 3 p.m. Tens of thousands of lights make Veteran's Park a must to drive and see. Enjoy the Galva Arts Council entertainment in the evening. 10 a.m.-8 p.m. 309-932-2555.



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To be considered for inclusion, please submit events in the format used above. Preference is given to events sponsored by non-profit entities. Submitting an event is not a guarantee of publication. Photos are welcome, but will not be returned unless a self-addressed and stamped envelope is provided. Events are subject to change, so please contact the event sponsor for confirmation.

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HIGH-SPEED INTERNET + DISH TV DISH MAKES IT EASY, WAY OUT HERE!

Surf, email, blog, shop for gear, check the weather and stay in touch with loved ones.
High-Speed Internet + DISH TV keeps you entertained and connected just about anywhere!



HIGH-SPEED INTERNET

\$39⁹⁹_{mo} Speeds as fast as 4G.[†]
Single bill convenience.

Price reflects \$10/mo. bundle discount. All plans require \$10/month equipment lease fee.

**BUNDLED WITH QUALIFYING DISH TV PACKAGES
STARTING AT \$29.99/MONTH FOR 12 MONTHS.**

DISH TV

Promotional prices start at
\$19⁹⁹_{mo} **FOR 12 MONTHS**
55+ CHANNELS
The essential channels
at a great value.

Package not eligible for bundle discount.
Reflects monthly savings of \$13/month for
12 months on TV.

**BUNDLE
WITH DISH
AND SAVE**

\$10⁰⁰_{mo}

WHEN BUNDLED
WITH QUALIFYING DISH TV
PACKAGES STARTING AT \$29.99/MO.
FOR 12 MONTHS

dish

**CALL 1-844-210-3312
OR VISIT DISH.COM/LIFESTYLE**

Plans require separate 24 month commitments and credit qualification.

DISH TV service: Important Terms and Conditions: Promotional Offers: Require activation of new qualifying DISH service. All prices, fees, charges, packages, programming, features, functionality and offers subject to change without notice. After 12-month promotional period, then current everyday monthly price applies and is subject to change. ETF: If you cancel service during first 24 months, early termination fee of \$20 for each month remaining applies. **Activation fee may apply.**

Miscellaneous: Offers available for new and qualified former customers, and subject to terms of applicable Promotional and Residential Customer agreements. State reimbursement charges may apply. Additional restrictions and taxes may apply. **Offers end 1/16/15.**

[†]Comparison based on average 4G speeds, comparison will vary based on actual speed.

DISH Internet service: Activation fee of up to \$299 may apply. For 24-month commitment, a termination fee of \$17.50/month remaining will apply if service is terminated before end of commitment. Equipment must be returned upon cancellation of service, otherwise unreturned equipment fees apply. Bundle discount available with a minimum of America's Top 120. DishLATINO Clásico, or DISH America. You will forfeit your bundle discount if you downgrade from qualifying programming or disconnect service.

Available services (speeds and data allowances) depend on the geographic location of the subscriber's residence. Service is not available in Puerto Rico and is limited in areas of Alaska. In some areas, dishNET is only available through DISH Authorized Retailers. Non-standard installations may result in additional charge. Taxes and monthly service fees apply. State reimbursement charges may apply. Prices, packages, and offers valid for a limited time and subject to change without notice. Requires a clear view of the southern sky. Use of dishNET High-Speed Internet service is subject to Fair Access Policies, Acceptable Use Policies and Network Management Policies.

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