

Energy efficiency offers new harvest for farmers

By Megan McKay

To get the biggest bang for their electricity dollar, more and more farmers are turning to energy efficiency to boost their bottom line and productivity.

Electricity on the farm powers heating (water, space, heat lamps), pumping (irrigation, water wells, manure lagoons), refrigeration, ventilation, lighting, fans (drying grains, aeration), and materials handling — feed augers, manure conveyors, milking, and egg conveyors. In the area of motors and lighting alone, the American Council for an Energy Efficient Economy (ACEEE) estimates farmers could save \$88 million annually by implementing cutting-edge efficiency measures using available technology.

EnSave, a Vermont-based farm energy audit group, has created a pyramid revealing steps agricultural operations can take to cut down on energy use, arranged by cost and benefits of improvements.

First, farmers should analyze energy use. This may reveal opportunities to save on electric use and in some cases could lead to increased productivity. Next, farmers should try energy conservation — changing behaviors and simply using less energy daily. After this, the greatest savings may be achieved through energy efficiency — working smarter and saving money by using more efficient equipment.

Each farm — from dairy and poultry to general agriculture — provides different opportunities for efficiency upgrades, varying by

region and crop. However, regular equipment maintenance provides universal benefits. For example:

- **Clean equipment:** Removing dust, soot, and debris from equipment will allow it to do more work with less effort, extending its life and reducing energy use.
- **Inspect regularly:** Equipment should be checked regularly. Replace parts that are showing excessive wear before they break and cause irreparable damage.
- **Plug leaks:** Be it a pinprick hole in a hose or a drafty barn, leaks waste money, fuel, and electricity. By plugging the leaks, savings can be considerable.
- **Remove clutter:** Hoses should be regularly flushed to clear them of debris. Ensure fan and motor intakes and exhausts remain clutter-free for maximum circulation and efficiency.

Lighting presents another efficiency touchpoint. Light work areas, not entire buildings, and use daylight when possible. Installing dimmable ballasts can also help control light levels.

Types of lights used on the farm make a difference. Incandescent light bulbs typically convert only 10 percent of the energy used into

light. There are many other options available:

- **Compact fluorescent lamps (CFLs)** deliver the same amount of light as incandescent bulbs, but use only a quarter of the electricity. Installing CFLs may cost a little more initially, but they can last up to 10 times longer.
- **Cold cathode fluorescent lamps (CCFLs)** can last up to 25 times longer and have around the same efficiency as CFLs.
- **T-8 and T-5 lights** with electronic ballasts generate less noise, produce more light per watt, offer better color rendering, minimal flickering, and cooler operation, and provide electric cost savings.

For more regional and/or crop-specific energy efficiency options, the U.S. Natural Resources Conservation Service provides farm energy calculators. From animal housing operations to irrigation

estimates, the calculators assess how much energy your farm currently uses and provide insights on how to cut your energy costs.

Sources: American Council for an Energy Efficient Economy, EnSave, U.S. Natural Resources Conservation Service



Minutes of Board of Trustees Meeting

July 25, 2011

Trustees present were: Frank Czyzewski, Bill Croy, Neil Gould, Frank Herman, Kevin Logan, Bob Pierson, Richard Rudolphi, Danny Schnepfer and Greg Smith. Also present were Executive Vice President/General Manager John Meng, and Cooperative Attorney Melanie Pearce. The invocation was given by Kevin Logan.

Approved the minutes of the regular meeting held June 27, 2011.

Accepted 18 new members for service.

Canceled 8 members no longer receiving service.

Approved work orders in the amount of \$36,201.59.

Accepted the disbursement list for the month of June 2011. Discussed benefits realized through tax rebates and the purchase of the new digger truck.

Approved the financial and maintenance reports for the month of June, 2011 as presented by Gen. Mgr. Meng.

Informed by Gen. Mgr. Meng of the on-going financial impact related to weather conditions specifically the ice storm and wind and lightning damages and related overtime costs.

Discussed the annual brush spraying, anticipated FEMA funds, LIHEAP, Home program, equipment depreciation, worker's

compensation premiums, debt depreciation and amortization, and pay-off of short term loan.

Reviewed pictures of various sites and affected equipment damaged as a result of wind, lightning, and ice storm and discussed repair strategies and anticipated costs.

Heard a report by Trustee Logan concerning the financials of the AIEC as no regular meeting was held this month.

Heard a report by Trustee Herman concerning the recent SIPC Board meeting, including information regarding monthly and year to date budget and revenue standings, the status of legislation for a coal gasification project, and the status of EPA regulation on emissions. Heard a report by Trustee Smith regarding environmental costs.

Discussed the upcoming AIEC Annual Meeting arrangements.

Reviewed and **Approved** the three Nominating Positions received for positions to be filled at the upcoming Clay Electric Cooperative Annual Meeting.

Appointed Trustee Logan as the NRECA Delegate and Alternate CFC Delegate and Trustee Herman as the CFC Delegate and Alternate NRECA Delegate for the upcoming Region V and VI meeting.

Heard, Discussed, Reviewed, and **Approved** Gen. Mgr Meng to

coordinate and share information with AIEC to conduct a Rate Study on behalf of Clay Electric.

Heard a report by Gen. Mgr. Meng on updates of GIS mapping project, new digger truck performance, replacement of damaged substation transformers, the adjustment of write-offs, Capital Credit Study, AIEC Member Survey, damage of a Cooperative fence as a result of a motor vehicle accident, and wind and lightning damages.

Heard and **Approved** a report by Gen. Mgr. Meng regarding one Purchase Power Agreement.

Heard and **Approved** a report by Gen. Mgr. Meng regarding the retirement of capital credits to the estates of two deceased members pursuant to Cooperative Policy.

Disbursed the 2010 Energy Education Council Annual Report, a Thank You note from the Robert Grahn Family, and an article on Anti-Coal Effort.

Discussed possible increase in the federal mileage allowance rate.

Adjournment.

Long-time director passes away



Howard Poehler, 69 of Ingraham, Ill. died Aug 16, 2011 at his home. Services were held at the Neal Funeral Home in Louisville, Ill. Memorials were made to Lincolnland Hospice of Mattoon or the St. Thomas School of Newton. Howard retired from the Board of Directors of Clay Electric Cooperative, Flora, Ill. on March 29, 2010 after serving 30 years.

Howard served in the Illinois Army National Guard and was also a volunteer on the North Clay Fire Department. Howard is survived by his wife, Glenda, three children, and two grandsons.

Harvest workers urged caution to yield fewer electrical accidents

Harvest season can yield higher numbers of electrocution, shock, and burn injuries. Nationwide, an average 60 agricultural workers are electrocuted and hundreds more injured in electrical accidents each year.

Farm workers need to be sure to keep equipment 10 feet from power lines at all times. That's 10 feet above, below and to the sides of the lines. Lower all equipment you can before moving it and use a spotter for large equipment.

Some equipment safety considerations:

- Always lower portable augers or elevators to their lowest possible level - under 14 feet - before moving or transporting; use care when raising them.
- When moving large equipment or high loads near a power line, always use a spotter, or someone to help make certain that contact is not made with a line.
- Be aware of increased height when loading and transporting larger modern tractors with higher antennas.
- Never attempt to raise or move a power line to clear a path!

If equipment comes in contact with power lines, stay inside the cab



and call for help. Tell others to stay away until a co-op lineman arrives at the scene to make sure power is disconnected. If there is risk of fire and you must leave the area, the proper action is to jump - not step - with both feet hitting the ground at the same time. Do not allow any part of your body to touch the equipment and the ground at the same time. Continue to hop or shuffle to safety, keeping both feet together as you leave the area.

Once you get away from the equipment, never attempt to get

back on or even touch the equipment. Many electrocutions occur when the operator dismounts and, realizing nothing has happened, tries to get back on the equipment.

It is very important that all farm workers and seasonal employees are informed of electrical hazards, and trained in proper procedures to avoid injury. For more information on farm and home electrical safety, visit www.SafeElectricity.org.



Clay Electric Co-operative, Inc.

A Touchstone Energy® Cooperative 

7784 Old Hwy. 50, P.O. Box 517, Flora, Illinois 62839

618-662-2171 • 800-582-9012

Office hours: 7:30 a.m. — 4:00 p.m.

Make sure Halloween is a treat

There is no trick or treat about it – electrical accidents happen when precautions are not taken to prevent tragedies. During this time of year when yards can be filled with ghosts and goblins make sure all of your costumed critters as well as your home are kept safe. Safe Electricity urges everyone to follow simple safety guidelines for a season full of sweet treats.

- Before use, check each light for broken sockets, frayed cords, or faulty plugs. Replace damaged strings. Always unplug light strings while replacing bulbs.
- Avoid running cords around sidewalks and other walkways outdoors and indoors that could risk tripping or entangling trick-or-treaters. Don't hide cords under carpeting or rugs, or behind curtains or blinds.
- Fasten outdoor lights securely to trees, house walls or other firm supports to protect the lights from wind damage. Use only insulated staples or plastic ties to hold light strings in place. Never nail or tack cords in place!



- Use only lights, cords, animated displays and decorations rated for outdoor use and UL (Underwriters Laboratory) approved.
- Cords should be plugged into outlets equipped with ground fault circuit interrupters (GFCIs). Use a portable GFCI if your outdoor outlets don't have them.
- Always unplug lights before going to bed or leaving your home.
- Keep electric objects away from flammable objects, such as hay bales, cornstalks and fabric costumes. The heat from lights and other electrical decorations could potentially cause a fire. For more information visit www.SafeElectricity.org.



Clay County Water Update

Clay County Water, Inc. continues to work on obtaining the necessary easements required for the Phase 3 project. Even if you do not intend to connect to the water, please be considerate of your neighbors that would like to connect.

The Phase 3 project includes about 50 miles of water line located in Southeast Xenia, South Stanford, South Harter, South Clay City Townships and a few other short line extensions in the area.

We are now finalizing the map of where exactly the line will go. If you have not been contacted, or would like to sign up for water service to your location, please call. Do not put this off any longer.

Doug Hockman 662-6666, Sue Pettit 662-4305,
Bob Pierson 662-7471, Kye Hemphill 662-4590,
Bill Seelman 662-8479, Dwight Edgington 678-2782
Kevin Henry 618-838-6123, or Hank Hilmes 662-2388.