

Inside: Learn how to ...

Save money on our Load Management Program

Serve on CEC's Board of Directors

Design an affordable, energy efficient home



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Central Electric Cooperative, Inc.
A Touchstone Energy® Company

ISSUE NO. 4

YOUR CENTRAL ELECTRIC COOPERATIVE NEWS CONNECTION

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Back to the Future

This year's Super Bowl was a great game. Not just because the Steelers won but also because I did not break anything (bones, lamps furniture, etc.) while reacting to the highs and lows of the game. That aside, the Super Bowl is also known for entertaining commercials, which is the only reason my wife watches the game. Included this year was a commercial from GE about a Smart Grid, which probably did not get your attention. However, the Smart Grid is going to play a major role in the way we generate, transmit, distribute and use electricity in the future.

Just as the Internet drastically changed the way we communicate and gather information, I believe the Smart Grid will significantly change the way electric utilities operate and how we all use electricity. This will include the utility knowing when a customer is experiencing an outage even before the customer can pick



Larry Adams
CEO & General Manager

up the phone (we're getting close to this at Central) or shifting the operation of an appliance to a lower-cost period of the day (we're already doing this). While the Smart Grid may not interest you any more than the commercial during the Super Bowl, it promises a number of benefits including lower costs of electricity, improved reliability and lessened environmental impact. At a time of rapidly increasing need and cost for generation, and the desire to lessen its impact on the environment, it couldn't come at a better time.



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The power of human connections

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The Smart Grid still has many years before it is implemented on a national basis. Luckily for our members the cooperative is right on track with our load management and automated meter reading systems. Both systems will be important components of the Smart Grid. Now, I'd like to discuss the cooperative's load management system, which is being upgraded.

What load management does.

Virtually all cooperative members pay for the electricity they use based solely on the amount (the number of kilowatt hours) they use during the billing period. However, the cooperative pays for that electricity not only based on the amount the membership uses in the billing period, but also when it is used. There are peak usage times during the month and the year when electricity costs more than other times. If we are able to shift usage away from those monthly and annual peak usage times we lower the cooperative's wholesale electricity bill and can pass those savings to our members. The load management system is designed to shift member usage away from those peak periods without inconveniencing the member.

How we do it!

The cooperative's load management system connects directly to members' electric water heaters and electric heating systems who are participating in the program. When peaks occur, the cooperative sends a signal over the power lines to turn off these members' electric water heaters and heating systems. When the peak is past, a signal is sent to turn them back on. Avoiding usage during peak times lowers the cooperative's wholesale electricity bill. And for the most part, the member never knows that their water heater or electric heat was turned off. Central has more than 2,500 members' electric water heaters connected to the load management system. And more than 500 members have connected their electric heating systems to load management.

Combined, the savings to the cooperative and members is over \$350,000 annually in wholesale electricity costs. The savings are passed on to all members, particularly load management program participants. Members in the water heater program receive a monthly credit of \$2.50 on their bill or have received discount pricing on their water heater and its installation. Members participating in the controlled electric heat program receive a rate for heating purposes that is about half the standard residential rate, making it a very cost effective heating solution. Energy efficiency is about using energy in the most cost effective manner possible, and the load management system is a great tool for doing that.

So if it's working, why mess with it?

Central implemented its load management system in 1985. The equipment we are using is more than 20 years old, and we can no longer get replacement parts. It's also old technology, designed while the Internet was just an idea! The equipment is very simple by today's standards. This makes it much less versatile than we would like. As electric generation rates increase, as demands to reduce carbon emissions to the atmosphere increase, I believe it will be more and more important to use electricity efficiently. And if it lets us offer participating members lower rates, you win.

So we are beginning to replace our load management system. This is being done in conjunction with the co-op's generation and transmission provider, Allegheny Electric Cooperative. This will require replacing equipment in our office, our distribution substations, and in members' homes. It is a significant undertaking, but one which will provide benefits to the cooperative and its members for many years. We expect the process to take about two years. We are beginning with the Mineral and Bullion substations and will progress throughout the rest of our system. We will contact participating members as we go.

Power Lines

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The new system will not only replace an already valuable asset, it will increase our load management capability. The new system's increased functionality will provide additional options for load control not available with our current system. It will improve the manner in which we operate the system, providing more information and improving load control strategies. I believe it will also provide the opportunity in the future to offer members additional ways to participate in load management, such as controlling air conditioners or when their plug-in hybrid car charges.

While the cooperative's load management system is not, in itself, the Smart Grid envisioned by GE and the Department of Energy, it is a piece of what will eventually be the Smart Grid and a more efficient electric system for our country. Central's automated meter reading system is another piece. And if you save money on your electric bill in the process, everyone wins.

If you would like additional information about the Smart Grid, you can find it on the U.S. Department of Energy's Web site at <http://www.oe.energy.gov/smartgrid.htm>.

Butler County Director Vacancy

Central Electric's Board of Directors has a vacancy in Butler County which will be filled by appointment.

If you are a member living in Butler County you have already received a letter notifying you of this opportunity, and steps you must take to be considered.

The nominating committee will review all submitted questionnaires and make a recommendation to the board of directors. As part of this selection process, the committee may want to meet with you to conduct an informal interview.

Central Electric Cooperative's Board of Directors will make the final selection and hope to have the new director seated at their July 20th meeting. The successful candidate will serve out the unexpired term in Butler County until August 2012.

Look for updates on the Butler County vacancy on our Web site at www.central.coop.

Central Electric Conducts Annual Pole Testing

Regularly testing and treating poles on our distribution lines increases their life expectancy and reduces pole failures. Central Electric tests each pole on our system every ten years. To test a pole the inspector digs around the base, about 18 inches, and inspects and retreats the pole. Member-owned poles receive only a partial inspection and are not excavated to an 18-inch depth, nor treated.

Osmose Utilities Services Inc. will begin testing in May and should be finished by July. The following are affected: Starr Substation: Forest County, Tionesta and Green townships; Wolf's Corners Substation: Forest County, Tionesta and



Green townships, Clarion County, Washington, Farmington and Knox townships; Lucinda Substation: Clarion County, Knox, Paint, Highland and Farmington townships; Beaver Substation: Clarion County, Paint and Elk townships.

Also, please remember that items posted on our utility poles endanger our linemen by making poles difficult to climb. Members should watch for illegal postings on utility poles including signs, posters, birdhouses and private lighting. We thank you and appreciate your attention to this matter.

Power Lines

Anatomy of an Energy Efficient House

by Ken Maleski

Most folks believe that all new homes are energy efficient. But how does one know for sure?

Cooperative members Floyd and Dorothy Smith of Butler County set out to do the right thing: construct a house that costs less to live in. The Smiths relied on Richard Smith Construction of New Castle, Pa. and their son-in-law, John Beatty (Beatty Refrigeration of Butler, Pa.) to do the job.



John Beatty installed this 17 S.E.E.R. heat pump.

Efficiency

Planning is the key. All three parties sat down and combined ideas for efficiency and conservation. Air infiltration deficiencies were given high priority during design and construction. Leakage wastes energy and decreases comfort. John installed a high efficiency heat pump and ENERGY STAR™ rated appliances throughout the house. Over 95 percent of lighting fixtures were fitted with compact fluorescent bulbs. CFL bulbs consume one fifth the energy of standard incandescent lamps.

Conservation

The Smiths choose to participate in CEC's load management program with their heating, cooling and hot water. They installed a Steffes, Inc. thermal storage furnace that stores heat in a brick package. The furnace helps the heat pump in extreme cold temperatures, and provides toasty warmth during the cooperative's load control periods when energy costs are extremely high. The couple saves a whopping 40 percent on all the energy consumed with a special meter that participates in the load management program.











Floyd and Dorothy Smith with their Steffes furnace.

John Beatty also installed a Manabloc water distribution system by Viega, Inc. that conserves water and minimizes hot water line loss. Quarter-inch polyethylene pex tubing coupled with an individually controlled valve manifold makes future plumbing repairs easy.

The Home's Anatomy

Building an energy efficient home provides years of comfort and savings. Here is the anatomy of Floyd and Dorothy Smith's house:

-  **Foundation:** Full 2-inch foam board (with vapor barrier) under slab basement floor, critical for in-floor radiant basement heating (Smiths installed a 12-kW electric boiler to provide basement heating)
-  **Basement Walls:** 2-inch foam board on walls and all top header space is spray foamed (fiberglass batts are not recommended in this area)
-  **Main Walls:** 1-inch exterior high-density foam board with unfaced R-13 fiberglass batts
-  **Windows:** Gorell low-e ENERGY STAR™ windows (u value of 3.5)
-  **Attic:** NuWool blown cellulose insulation (R-50)
-  **Lighting:** Recessed compact fluorescent lighting throughout 95 percent of home
-  **HVAC:** 3-ton (17 S.E.E.R.) Prestige Rheem air-source heat pump with 2-stage compressor and Steffes, Inc. ComfortPlus (model #3120) thermal storage furnace
-  **Appliances:** All appliances are ENERGY STAR™ labeled

Energy efficiency does not just happen. It must be planned and implemented. Central Electric Cooperative has been a partner in designing many success stories involving efficiency and load management conservation since 1987. If you would like to learn more about saving energy, call 800-521-0570, ext#2172 today!

Ken's
ilowatt
corner



By Ken Maleski
CEC Consumer
Marketing Representative

www.central.coop
Check it out!



Whether we are at work, on vacation or hanging out at home, our refrigerators are always operating. If your refrigerator is under ten years old, here are some suggestions to keep it running efficiently:

- Clean coils (located under unit) twice a year
- Keep the unit at least four inches away from the wall for air movement
- Check door gasket seals for leakage (mold appearance or partially-frozen ice cream)

Refrigerators over ten years old could be costing you an additional \$8 to \$12 per month to operate compared to a new energy-star model.

Saving Energy with Your Refrigerator

If you decide to purchase a new model, remember that a top-freezer style is the most energy efficient. The cool air naturally drops from the freezer above to cool the refrigerator section below. These models also have the most interior space for a given exterior size. Figure about 80 percent of advertised interior volume as actual usable space.

And remember, whether it is a new ENERGY STAR™ model or your older unit, *"Twice is always nice!"* When it comes to cleaning the coils each year for peak efficiency. Cool Stuff!



Low Income Assistance For Elderly (LIFE)

Central Electric has a new program for low-income elderly members to stabilize their electric bills over the next two years.

Qualified members will receive a \$42 credit once on an electric bill in 2009 and again in 2010. This covers the rate change that went into effect on April 1, 2009.

If you feel you meet the program's qualifications and wish to apply, please contact Lisa Hoover, director of consumer services at 800-521-0570 Ext# 2130.

LIFE recipient eligibility:

- 65 years of age or older
- Total household income must be at or below 225% of the poverty level and applicant must not qualify for the Cooperative Family Fund
- Residential member for a period of ten or more years



Power Lines

Recipe of the Month

Bunny Cupcakes

INGREDIENTS:

- * 1 box of yellow or white cake mix
- * Pink food color
- * 2 containers of white frosting
- * 5 large marshmallows
- * Pink sugar
- * Candy decorations and sprinkles as desired



DIRECTIONS:

1. Heat oven to 350 degrees Fahrenheit (325 degrees Fahrenheit for dark or nonstick pans). Make and cool cake as directed on box for 24 cupcakes.
2. Stir a few drops of pink food color into 1 container of frosting. Frost cupcakes with pink frosting. Spoon 1 heaping teaspoonful of white frosting on center of each cupcake. To make ears, cut each large marshmallow into five pieces with kitchen scissors.
3. Using scissors, cut through center of each marshmallow piece to about 1/4 inch of edge. Separate to look like bunny ears; press 1 side of cut edges into pink sugar. Arrange on each of the white frosting mounds as shown. Use candy decorations and sprinkles to make eyes, nose and whiskers.

For more great recipes visit:
www.bettycrocker.com

Send recipes to: Jessica Brison
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CFL Drop Off

Are you looking for a place to properly dispose your CFL bulbs? Central Electric has a drop-off box in the front lobby of our main office building. So stop on by!



February contest winner:

Janice Weeter of New Bethlehem

Read Power Lines and



Read your issue of Central Electric Cooperative's Power Lines and win! It's simple — you can win a \$50 credit on your monthly electric bill by reading Power Lines and then completing the quiz that appears below. Answer the questions (answers are contained in each issue of Power Lines), then complete the quiz and personal information and return it with your bill payment. For a faster entry you may complete the survey online at www.central.coop.

Important Contest Rules:

1. The contest is open to all Central Electric Cooperative members with active accounts as of the drawing date.
2. Only one entry per member is permitted.
3. Employees and directors of Central Electric, along with members of their immediate families, are not eligible.
4. The winning entry will appear as a credit on the member's bill and may not be redeemed for cash.

Complete, clip and enclose the survey and personal information below and return it with your monthly payment!



1. True or False: The Smith's save 40 percent by participating in Central's load management program.

Answer: _____

2. True or False: With the departure of Bob Schroth, Central Electric Cooperative's Board of Directors has a vacancy in Allegheny County.

Answer: _____

3. True or False: Two common signs of refrigerator leakage are mold and partially frozen ice cream.

Answer: _____

Name: _____

Address: _____

Telephone no: _____ Account no: _____