New TVA rate structure coming

After more than two years of planning, the Tennessee Valley Authority will implement new rate structures in April that will promote energy efficiency by sending “price signals” to consumers. These new rates will change the way Cumberland Electric Membership Corporation charges you for the power you use, billing you more for power consumed during the summer and winter. TVA’s costs to provide power vary significantly based on when customers are using electricity. The new rates will better reflect those differences — charging more when the demand for power increases, which, in turn, forces TVA to operate its higher-cost power plants (such as natural gas peaking units) or purchase power to meet the demand.

TVA is changing our power contract and will begin billing CEMC and the other 154 local distributors of its power under these new rates in April. CEMC will implement new seasonal rates based on this new contract to help manage the rising costs of power.

Because the demand for power at peak times continues to increase, TVA has to build or buy new power plants to make sure it has the electricity available when consumers need it. Investing in new plants that are needed only a few hours a day is not the most efficient way to operate the power system. When you flip that switch, you expect the electricity to be there; that’s part of our mission. We have to build a dependable distribution system that is robust enough to meet the demands of cold winter days when the temperature is 5 degrees or the hot summer days when the thermometer breaks 100 degrees. It’s expensive, but it must be done.

Of course, the easiest way to lower your electric bill is to use less electricity. That’s one way to help manage your household budget, and CEMC tries to do the same thing. The largest expense for our cooperative — about 75 cents of every dollar that we spend — is power purchased from TVA. CEMC works hard to keep overall expenses down, just like you do with your household budget. If CEMC can lower the amount of power it has to purchase, that’s a big savings to our bottom line. That’s why it makes sense for your electric cooperative to promote energy efficiency: Encouraging you to use less electricity just makes sense.

With rising fuel, construction and material costs, CEMC and TVA are facing some very expensive and complex budget issues. By implementing demand charges for electricity that vary depending on the time of the year, TVA hopes to better manage its risks. And we have taken steps by changing our rate structure to adapt to those changes.

Electric meters keep track of how much electricity you use. At some point, you might even have an electric meter that keeps track of when you use it. With this new rate structure, your electricity will be priced differently depending on what month it is — in the future, it could vary depending on what time of day it is.

We know that all of these changes can be challenging and confusing. We’re committed to doing everything that we can to keep you fully informed and educated on how to manage your energy costs. We’ll provide you with the information that you need and answer the questions that you have as we move into what is a changing and challenging energy future for all of us.
HUG A BUG — After attending an electric safety demonstration put on by Cumberland Electric Membership Corporation, these Montgomery Central Elementary School students were treated to a visit from Louie the Lightning Bug. Call CEMC to arrange for a demonstration at your school or office. We’ll check Louie’s schedule!

Deadlines approaching

Feb. 23 is the deadline for high school juniors to enter the 2011 Washington Youth Tour Writing Contest. Winners will spend a week touring Washington, D.C., and will have a chance to win a college scholarships worth up to $3,000.

The deadline for high school seniors to enter the competition for $1,000 college scholarships from CEMC is Feb. 25. These scholarships are valid at any Tennessee college or university as well as a couple of Kentucky schools. Contact your school guidance counselor or call the CEMC Member Services Department at 800-987-2362 for application requirements.
The cost of electricity hinges on several things: availability, prices for power plant fuels and materials and the amount of power consumers demand. Now a slew of volatile federal rule-making has hit power producers.

Perhaps the most pressing challenge facing electric utilities involves U.S. Environmental Protection Agency (EPA) regulation of carbon dioxide and other greenhouse gases as pollutants under the federal Clean Air Act. On Jan. 2, EPA began restricting the amount of greenhouse gases emitted by fossil fuel-burning power plants and other stationary industrial sources.

This action will significantly impact electricity production. Fossil fuels like coal and natural gas power 70 percent of America’s electricity generation. Since electric co-ops are more dependent on coal than investor-owned utilities and municipal electric systems, the end result will be higher electric bills.

“Clearly, EPA is wielding the Clean Air Act as a bludgeon, pressing it into service because the outgoing Congress was unable to agree on how to curb greenhouse gas emissions blamed for contributing to climate change,” notes Glenn English, CEO of the National Rural Electric Association (NRECA) based in Arlington, Va.

By failing to pass legislation addressing carbon dioxide and greenhouse gases, Congress essentially left the decision-making up to EPA. But the Clean Air Act was never intended to regulate carbon dioxide — it was enacted to use proven technologies to fight smog and acid rain. No viable, commercially tested solution exists to remove carbon dioxide emissions from power plants.

“Co-ops expect EPA’s rulemaking will eventually have the practical effect — absent breakthrough technology — of eliminating coal as a power plant option,” says English. “On top of this, the cost of switching from coal, which has traditionally been plentiful and affordable, to other fuels will be high.”

Only two alternate baseload-generation sources can meet America’s demand for safe, reliable and affordable electricity — natural gas, which is priced on a volatile commodities market (and has carbon dioxide emissions to contend with), and nuclear power, requiring a long lead time for construction.

“Electric co-ops are urging Congress and the White House to approve a two-year moratorium on EPA regulation of carbon dioxide greenhouse gases — a delay giving lawmakers the opportunity to fashion climate-change legislation that protects consumers and keeps electric bills affordable,” English says.

Even if Congress grants a reprieve on greenhouse gas regulations, red tape from other EPA and various government rule-making efforts — the Clean Air Transport Rule, cooling water-intake requirements and a decision on treating coal ash as hazardous waste, for starters — will trigger higher electric bills.

Clean Air Transport Rule

Released in 2010, EPA’s Clean Air Transport Rule aims to cap emissions of sulfur dioxide and nitrogen oxides from power plants across 31 eastern states, including Tennessee, and the District of Columbia. The regulation enables “downwind” areas whose air quality is compromised by power plants to their west to meet federal standards. By 2014, EPA claims the Transport Rule, when combined with other state and federal measures, will reduce power plant sulfur dioxide emissions by 71 percent and nitrogen oxides emissions by 52 percent from 2005 levels at a cost to utilities of $2.8 billion per year.

The Transport Rule requires 180 coal-fired power plants to install new pollution-control tech-
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Cooling-water intake requirements
Power plants use water from lakes or rivers to cool generating equipment. The federal Clean Water Act Section 316(b) sets standards for cooling-water intake structures, requiring plant operators to use “best available technology” to protect the environment.

EPA began reviewing the standards in 2010, launching a cost-benefit analysis of imposing stricter regulations. The rule is expected to be unveiled in February.

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Coal ash debate
People across the nation became aware of coal ash in December 2008, when a retention wall failed at the Kingston Fossil Plant in East Tennessee, spilling 5.4 million cubic yards of a slurry of water and the coal-combustion byproduct into the Emory River and across the countryside.

Though river dredging ended last summer, coal ash remains in the news today. To ensure the safe disposal of fly ash and other residues produced by coal-fired power plants, EPA is considering designating the materials — for the first time — as hazardous waste.

Classifying these “coal-combustion byproducts” (CCBs) as hazardous could cost billions and force increases in electricity rates. Each year, the U.S. electric utility industry produces about 130 million tons of CCBs (roughly 8 percent from power-supply cooperatives).

“In previous analysis, EPA determined that CCBs do not warrant regulation as hazardous waste under the federal Resource Conservation and Recovery Act; oversight was generally in place at the state level to ensure adequate management,” says Johnson. “Nothing about CCBs has changed since then. Electric co-ops contend that coal ash is appropriately regulated and oppose efforts to have it branded as hazardous waste.”

Carrying the hazardous label in any form (EPA could classify CCBs as “special wastes,” making them subject to all permitting, handling and disposal requirements that apply to toxic items) will severely hamper beneficial uses of CCBs, Johnson warns. “No matter how you slice it, CCBs will be considered unsafe.”

Currently, one-third of fly ash (used as a cement replacement) and more than one-fourth of scrubber sludge (converted into synthetic gypsum for wallboard manufacturing) are recycled. For every ton of cement replaced by fly ash, a ton of greenhouse gas emissions is avoided.

More than 10,000 co-op consumers sent letters to the EPA in 2010 voicing their concern and asking EPA not to brand coal ash as hazardous. EPA had not reached a final decision as of press time.

Parting thoughts
“Rest assured, local electric co-ops are working together to keep your electric bills affordable,” says Tom Purkey, general manager of the Tennessee Electric Cooperative Association. “We’re controlling costs through innovation, and no matter what government mandates come our way, we’ll continue to put you, our members, first.”

The electric cooperatives of Tennessee are looking out for you. Find out more at www.tnelectric.org.

Sources: U.S. Department of Energy, U.S. Environmental Protection Agency, North American Electric Reliability Corporation, National Rural Electric Cooperative Association, ECT.coop. Perry Stambaugh writes on consumer and cooperative affairs for NRECA, the service arm of the nation’s 900-plus consumer-owned, not-for-profit electric cooperatives. Megan McKoy-Noe, Certified Cooperative Communicator, contributed to this article.
Sealing your home from the elements

By Brian Sloboda, Cooperative Research Network

When a home feels too cold or too warm, folks often purchase air conditioners or space heaters to improve comfort. But in many cases these appliances only address the symptoms, not the actual problem. However, there’s often a simple and relatively inexpensive solution: seal air leaks and add insulation.

To find leaks, walk around your house on a cold day and feel for drafts around exterior doors and windows, electric outlets and entrance points for TV and telephone cables. In basements, target dryer vents, gas lines or any place with an opening in the wall.

To fix leaks, apply caulk, spray foam or weather stripping to these areas. Use spray foam on large openings. But be careful: The foam expands and could damage weak wood or loose brick. When purchasing caulk, pay careful attention to whether it is rated for interior or exterior use and if you can paint over it.

An insulation kit provides a temporary solution for older windows during winter. Apply a clear plastic sheet to the interior of the window, then use a hair dryer to remove wrinkles and make the sheet almost as clear as the glass.

If you have a forced-air heating or cooling system, consider sealing the duct work. According to Energy Star, a standard for rating energy-efficient consumer products, about 20 percent of the air moving through duct work is lost to leaks and holes. For exposed duct work in basements or attics, apply a duct sealant — either tape, aerosol or mastic — depending on your skill level.

Once leaks are sealed, focus on adding insulation. Insulation is your home’s first line of defense in keeping out heat and cold and comes in fiberglass (batt or blown), cellulose, rigid foam board, spray foam or reflective (also called radiant barrier) forms. Your local hardware store can help you choose the one that best fits your area and particular needs.

When buying insulation, consider its R-value. Typical insulation levels for an attic range from R-30 to R-60, while floor requirements vary from R-13 to R-30.

The most difficult area in which to add insulation will be your walls. Ideally, you would add wall insulation when replacing the siding on your home. In most areas of the country you will need either R-5 or R-6 insulative wall sheathing and then blown-in insulation to fill the wall cavity. If you do not have siding or won’t be replacing it anytime soon, you can cut holes in the wall and blow the insulation in. But this is generally a tricky undertaking and can cause significant damage if not done properly.

Brian Sloboda is a program manager specializing in energy efficiency for the Cooperative Research Network (CRN), a service of the Arlington, Va.-based National Rural Electric Cooperative Association. CRN monitors, evaluates and applies technologies that help electric cooperatives control costs, increase productivity and enhance service to their consumers. Additional research provided by ESource.

Since attics are generally easy to access, adding insulation above a home is a good first step to protect the building from outside elements.

Energy Efficiency Tip of the Month

Ninety percent of the energy it takes to wash clothes is used to heat water. Washing your clothes in cold water could save you $40 per year if you have an electric water heater or $30 annually if you have one powered by natural gas.

Source: U.S. Department of Energy