# Why electricity prices are going up
# And what you can do in response

Editor's note: Following is the fifth and final installment in a series of articles published over several months in an effort to address the reasons behind the extremely large increases in energy rates that have recently been experienced. The goal of these articles is to provide informational and educational material for readers to be able to better understand the historical background of energy issues in the Tennessee Valley, take a look at energy supply and demand issues and anticipate to the best of our ability the potential impact of the environmental issues and proposed legislation being considered by Congress. The articles have assessed the latest technology advancements, and this article gives you suggestions and recommendations on what action you can take to lower your energy use and have an impact on "our energy future." You may view the entire series of articles, as well as frequently asked questions about recent high energy bills, on DREMC's web site: (www.dremc.com.)What can I do to lower my energy use and my monthly bill? Concern about the cost of energy, in whatever form, has been as high in the last few months as it has been in the past decade or more as members of Duck River Electric faced energy use and bills higher than they have seen in recent history. As discussed in prior articles in this series, America is facing some of the toughest energy issues in its history as the demand for energy is growing at a rate faster than supply, concerns for the environment are driving discussions regarding our future energy policies, and the price of energy for the last quarter of last year and the beginning of 2009 was at historic highs. Unfortunately, the outlook for any dramatic reduction in the cost of electricity in the near term appears rather bleak, although there was a 6% reduction in TVA's quarterly fuel cost adjustment effective with bills issued after January 1, 2009. (Please watch for additional information in The Tennessee Magazine about TVA's announcement of whether its Fuel Cost Adjustment for the quarter beginning April 1 will increase or decrease. At the time this article was being prepared for publication, TVA had hinted that the FCA could be going down further at that time but the final determination had not been announced.) This month's article will focus on ways you can lower the amount of energy used in your home while at the same time lowering your monthly bill. Energy efficiency and energy conservation are often terms used to describe ways one can reduce the amount of energy used in a home, office or industry. Energy efficiency is often defined as "reducing energy use without changing your behavior," while energy conservation might best be defined as "changing your behavior to reduce energy use." Throughout this article we will attempt to provide suggestions and recommendations on how to use both methods to lower your energy use, thus lowering your monthly bill. Terms like "energy efficiency" and "energy conservation" are not new. And efforts to promote efficiency and conservation also are not new. These terms and efforts to promote them have been around since the 1970's. Frankly, however, most efficiency and conservation efforts have not been seriously embraced by most people. The reason being that in the U.S. energy has been so cheap and inexpensive that taking steps to be more efficient or to conserve have generally just not needed to be "worth the trouble." After reading this series of articles – and after seeing the energy bills over the past few months – maybe it is time for this to change. As a first step, it is important to identify the big

energy users (those appliances and equipment that use the most energy) in order to prioritize which energy efficiency and conservation steps should be tackled first, then take whatever action that makes the most economic sense to lower energy use. Many are no-cost adjustments that often are just over-looked. Others have some cost, but the cost can be justified due to a simple payback that returns that investment in the short-term and offers money saving advantages from that point forward. As licensed architect and energy consultant Doug Rye said in a recent article, "I know that making energy improvements is the best investment in the country today. I know that it is the only thing in your house that will save you money, month after month and will have a payback. I also know that your home will be more comfortable as a result of these improvements."Whole House Efficiency: •Conduct an on-line or paper energy audit of your home. Information is available on DREMC's web site: www.dremc.com by selecting the tab labeled "Learn about your home's energy use and save money" or by contacting your local DREMC office. Members completing the on-line audit will receive a free energy conservation kit. •Check your attic insulation levels. DREMC recommends a minimum of R-30 (the equivalent of about10 inches of blown-in insulation) for the attic. •Crawl space insulation should be perimeter insulation used around the exterior foundation walls. •Caulk and weatherstrip around windows and doors to stop air leaks. •Seal gaps in floors and walls around pipes and electrical wiring, particularly those under bathroom and kitchen sinks. •Look for the ENERGY STAR label when replacing large or small appliances. •Use power strips for home electronics and turn off power strips when equipment is not in use. It's easy to overlook many "phantom" appliances such as chargers for cell phones, computer power supplies, etc. •Turn off lights, televisions and other appliances when not in use. Many televisions have "instant on" features and will consume power even when "off" unless turned off at the power source. •Keep all windows and outside doors located near your heating and cooling thermostat closed tightly. •Refer to appliance manuals for possible energy saving tips for your specific appliance. •Check attic access door (if inside the conditioned space) to make sure it seals properly to avoid a major air leak.Heating and Air Conditioning: •Set thermostats no higher than 68 degrees in the winter and no lower than 78 degrees in the summer. •Change central system filters monthly, and make sure filters are installed facing in the correct direction as indicated by an arrow on the filter. •Close fireplace dampers when not burning a fire. •Close shades and drapes at night to keep heat in during the winter, but leave them open on the sunny side of the house during the day to take advantage of the solar gain. They should be closed during the day in the summer to reduce the amount of solar gain. •Ensure return air grilles are not blocked by furniture or other obstructions. •Have your heating and air-conditioning system serviced once per year by a certified technician to make sure it is running at optimum performance. •Check weather-stripping around window-mounted air-conditioning units. •Eliminate or minimize use of electric space heaters. •Have your ductwork inspected and repair any leaks. •Keep the outside unit clean and clear of weeds and debris. •Consider installing a high efficiency electric heat pump, the most energy efficient heating and cooling system on the market. When operating in the heat pump mode during winter months the heat pump delivers, at a minimum, two units of heat energy for every one unit of electrical energy it consumes. DREMC, in conjunction with TVA, offers a low interest financing program which allows the cost of the unit and its installation to be

repaid over a period of up to 10 years. Contact your local DREMC office for additional details.Water Heating: •Set water heater thermostat to maintain a water temperature of no higher than 120 degrees. •Install a water-heater insulation wrap as per the manufacturer's instructions. •Drain one to two gallons from the bottom of the water heater each year to reduce sediment build-up. •Insulate exposed hot water lines. •Limit shower length to 5-7 minutes. •Install low-flow shower heads. •Repair or replace leaking faucets. One drop per second can add up to 165 gallons per month.Laundry and Kitchen: •Wash and dry only full laundry loads. •Use bath towels at least twice before washing them. •Clean dryer's lint trap before each load. •Make sure dryer vent hose is not kinked or clogged and that it is properly vented to the outside. Check hose connections to make sure they have not come loose. •Use cold water wash cycle when possible. •Dry one load of clothes immediately after another to minimize heat loss. •Switch your refrigerator's power-saver to "ON," if available. •Clean refrigerator coils at least once each year to keep compressor running efficiently. •Set the refrigerator temperature at 36 to 39 degrees F and the freezer at 0 to 5 degrees F. •Ensure gaskets around refrigerator and freezer door seal tightly. •Unplug unused refrigerators or freezers. Keep your freezer full. The fuller the freezer, the less cold air you lose when opening the door. Consider replacing your older model refrigerator, especially if older than 10 years, with an ENERGY STAR rated model. Unplug garage or basement refrigerators unless used regularly. •Use microwave oven for cooking when possible. •When cooking on the range, match pot/pan size to burner size. Use lids to help food cook faster. •Let hot food cool before storing it in the refrigerator. •Only run dishwasher when fully loaded •Use air-dry cycle instead of heat-dry cycle to dry dishes.Lighting: •Turn off unnecessary lighting. •Replace any light bulb that burns more than one hour per day with its equivalent compact fluorescent lamp. DREMC members are encouraged to take advantage of our "Exchange-A-Light" program. Each member is eligible to exchange up to six incandescent bulbs for six compact fluorescent lamps at your local DREMC office. Compact fluorescent lamps generally last 10 times longer and use 75% less energy than their equivalent size incandescent. •Replace outdoor lighting with its outdoor-rated equivalent compact fluorescent lamp. Where possible, use fixtures with a photocell and/or motion sensor. •Use low-wattage bulbs where lighting is not critical.In addition to these steps that you can take individually, DREMC and TVA are currently studying ways to assist consumers with short-term and long-term energy efficiency improvements, peak electricity demand reduction, and increased end-use generation. Because TVA is facing a shortage of power generation facilities in the not too distant future, the goal of implementing this energy efficiency and demand reduction program is to reduce peak electricity demand growth on the TVA generation system by up to 1,400 megawatts and growth in energy consumption by up to 4.3 million megawatt-hours annually by 2012. As these programs are developed they will be offered to DREMC members for participation. Beyond what you can do at home, and on a regional level through DREMC and TVA, member owners of Duck River Electric can also have input on trying to hold the cost of electricity at an affordable level by voicing your concern to elected representatives in the U.S. Congress. Considerable discussions are already taking place under President Barack Obama's administration that will set the direction for new energy, climate change and environmental policies, all of which will have a direct impact on the future cost of electricity. Glenn English, CEO of

the National Rural Electric Cooperative Association (NRECA), an organization of electric cooperatives across the United States, was quoted from a letter he wrote to President Obama saying, “Consumers must be ‘equal stakeholders’ with businesses and policy-makers in shaping climate change policies, since they’ll be asked to pay for them.” His letter joined letters from four major consumer advocacy organizations that asked the President and members of Congress to place emphasis on the price of electricity. “A reliable, affordable supply of electricity is the lifeblood of a 21st century, high-tech economy,” the letters said. Cooperative members are encouraged to read and study about the issues being debated and become actively involved in expressing your interest and concerns with legislators. NRECA has launched an aggressive grassroots campaign to allow cooperative members to weigh in on the issues, entitled “Our Energy, Our Future: A Dialogue With America.” To date, more than 1.5 million e-mail messages and letters have been sent to members of Congress, attempting to encourage legislators to consider ways America can achieve energy solutions that are both economically and politically sustainable over the long term. Jack Wolfe, Jr., president of NRECA, perhaps summarized the issues best when he recently wrote in a commentary message, “We have many tough issues in play, and they all require attention: building new generation to keep the lights on, dealing with high cost of fuel and materials, improving consumer energy efficiency, and coping with carbon constraints. And all of these wrap into upcoming energy debates. We must make sure lawmakers strike the right balance, one that meets environmental objectives while limiting the impact on electric bills.” Duck River Electric encourages its members to visit the Internet Web site: www.ourenergy.coop to learn more about the campaign and take the time to send your legislators a message about your feelings on the issues. Doing so will extend the grassroots efforts by cooperative members all across America to have input into “Our Energy, Our Future.”