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Climate change policy hits your pocketbook

Congress and the federal government are focused on prioritizing climate change policy. Given the long list of environmental impacts and expensive solutions, any action taken to address the issue certainly will increase the cost of electricity we use everyday.

Climate change proposals seek to reduce emissions of greenhouse gases, carbon dioxide in particular. In the United States, power plants that burn fossil fuels produce about 2.4 billion tons of carbon dioxide every year. That works out to about 39 percent of the nation's man-made output of gas, the largest single source.

Electric cooperatives are involved in cutting-edge work to develop new technologies to reduce carbon dioxide emis-

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sions from power plants, but those options aren't yet ready for prime time. They're limited, largely untested and expensive. Yet potential legislation would rely on them to make significant carbon dioxide cuts nationwide.

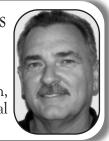
A key committee in the U.S. House of Representatives has passed a climate change bill, one that imposes a cap-andtrade tax to limit carbon emissions. That bill is expected to be taken up by the full House this summer.

Cap-and-trade systems work by setting a specific limit (the cap) on airborne pollutants from sources like power plants, factories and refineries, and they require those sources to account for all emissions with issued allowances.

Cap-and-trade has worked well during the last 15 years to reduce emissions of acid rain-causing sulfur dioxide nationwide and over the last decade to curb smog-creating nitrogen oxides in the eastern half of the country. However, some cap-and-trade tax proposals for carbon dioxide contain a new twist: pricey allowances.

Allowances would be auctioned (the trade) at undetermined prices, leading to huge cost burdens for any source of carbon dioxide emissions. In the case of power plants, those

Manager's Corner Bv Gary Jackson, CEO/General Manager



costs would ultimately be passed on to consumers using the power, in some cases adding \$50 or more to electric bills each month. In late February, the Obama administration pointed to such a system as a new, substantial source of revenue for the federal government—effectively muddying the initial environmental argument for regulating carbon dioxide.

Such a backdoor tax increase would force electric cooperatives to essentially become tax collectors for the federal government, and would allow Wall Street investors to set allowance prices and determine how much you pay for electricity.

We need to help Congress draft an energy solution that accomplishes environmental goals while taking affordability into account. But time may be tight: if congress fails to act, the U.S. Environmental Protection Agency stands ready to step in, leaving decisions that affect consumers' pocketbooks up to unelected

(Continued on page 30)

Beware of energy claims

by ELIZABETH McGOWAN, Cooperative Research Network

Lean times understandably motivate people to explore money-saving options. At what cost, however, might that pursuit of savings come?

Customers wanting to lower their electric bills most likely already know the sage advice about insulating their homes, investing in Energy Star appliances and unplugging devices they are not using.

But isn't there a quicker, easier way? What about investing in one of those "magic boxes or cylinders" that promises to slice home electricity costs by up to 50 percent? Here's a

heads up. If a product sounds too good to be true on the energy-savings front, it probably is.

Dangerous (maybe illegal) but effective

A pocket-size, seemingly innocuous item sold online—called the RPU-190—falls into this grouping. Engineers agree that there's no doubt that, as promised, this \$200 piece of copper wire will cut a homeowner's electricity bills in half. The catch is that attorneys and municipal and state authorities nationwide also agree that installing such a device is against the law because it requires tampering with a meter and stealing power from a utility.

"I'm concerned that people could be taken in by this thing pretty easily," says Thomas Suggs, vice president of engineering for Middle Tennessee EMC in Murfreesboro. "The safety aspect jumped out at

me immediately."

While Suggs says he has never before noticed such a product for sale, he has seen customers try to bypass electricity bills by jamming copper tubing, 16-penny nails or a kitchen fork into the meter tabs.

Suggs began researching the RPU-190 after a colleague forwarded him a link to the product's Web site in January. While online, he was alarmed to find a promotional video featuring a young woman clad in shorts, a T-shirt and lineman's gloves pulling out the meter and inserting the RPU-190 into the meter.

That enables the installer to create a circuit that bypasses one of two "legs" of power flowing into a home.

The video failed to warn viewers about what Suggs and all qualified engineers know. Power surging

through a compromised meter can cause an electrical catastrophe. Furthermore, a short circuit could produce an arc flash bright enough to cause temporary blindness, hot enough to melt metal and powerful enough to launch fragments of shrapnel-like debris.

"Anytime you get into those meter bases, you're running a risk," Suggs says. "With an arc flash,

somebody could get hurt or killed."

Suggs wasted no time acting. The video was removed from the Web site after Suggs contacted Electric Hero, the San Diego company marketing the RPU-190. Also, numerous webmasters removed the product from their Web sites once Suggs alerted them about its hazards via Internet bulletin boards. Suggs also used e-mail to inform other electric cooperatives about potential problems with the product.

His diligence piqued John Ohlhausen's attention in Hondo, Texas. Ohlhausen, manager of engineer-

ing services for Medina Electric Cooperative, opted to be proactive and order an RPU-190, just in case co-op members had questions.

"We wanted to have one on hand, study it, and be knowledgeable about it in case questions arose," Ohlhausen explains, adding that it was painful to spend so much money on what he suspected was a hoax. "This way, members can take a look at it before wasting their own \$200 on something they can't use legally."

The product arrived in a manila, bubble-wrap envelope with a simple return address of Maitland, FL. Ohlhausen describes it as a poorly constructed copper shunt coated with black insulated paint. It offers minimal resistance and no energy storage capability, he continues, adding that poor construction puts its worth between \$15 and \$20, at most.

Climate change

bureaucrats.

Electric cooperatives want to work with congress to address climate change in an affordable and environmentally responsible fashion.

We're ready to provide insight into how various policy proposals will impact consumers, and urge lawmakers to reach the right answers.

National energy and climate change policy must focus on reducing emissions, not on "revenue enhancement" for federal government. Money generated, through a cap-and-trade tax or otherwise, must be used

(—continued from page 29) wisely: devoted to developing

Energy Efficiency quick tip

Be wary of energy saving devices that seem too good

doubt a product's safety or effectiveness.

to be true—contact your electric cooperative if you ever

related technology or returned to those who foot the bill. And Congress should take the lead on climate change, not regulators or Wall Street speculators.

In unity with 42 million other electric co-op consumers around the country, urge your U.S. representatives and senators to work with electric cooperatives to keep electric bills affordable. Get involved in this effort by participating in the Our Energy, Our FutureTM grassroots campaign at www.ourenergy.coop.

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The "Frequently Asked Questions" section of the Electric Hero Web site offers readers a series of 11 evasive, circuitous and nonsensical answers. For example, the answer to "Am I stealing electricity?" is "No you are simply changing the flow of energy through the power lines into your house from an unstable current to a stable one." The response to "Is it legal?" is "Yes, installing the RPU-190 correctly is not illegal." And the answer to "Will the electric company fine me for use of this product?" is "No, the only way the electric company can determine the use of this product is if you stop paying your electric bills or install it improperly, damaging their equipment"

Suggs's e-mail exchanges with Electric Hero deteriorated rather quickly when a company representative asked Middle Tennessee's legal department to "forward us the law stating what you said to be illegal and how you would pursue that." That same e-mail, full of misspellings, ended with a personal dig at Suggs: "I bet since you are th (sic) VP you are getting one heck of a end year bonus like all other manufacture (sic) have this year."

Nobody at Electric Hero responded to a reporter's recent phone calls and e-mails requesting comment about the RPU-190.

A disclaimer on Electric Hero's Web site stated: "We WILL NOT answer e-mails from anyone asking about illegal activities, or how to use our products for illegal activities. They will be automatically deleted."

Deceptive and ineffective

Numerous products fall into the deceptive and ineffective category. One to achieve significant notoriety is the Xpower Energy Saver. Forum Trading Inc. was collaborating with several other companies to sell a \$200 cylinder they claimed consumers could plug into the wall to trim electricity consumption by 25 percent, and extend the life of household appliances.

Texas Attorney General Greg Abbott issued a temporary restraining order against Forum Trading's sales last spring, and the case is scheduled to go to trial later this year. Texas-based Forum was selling Xpower through a multilevel marketing scheme, Abbott said.

"With Texas families focused on energy prices and seeking cost savings, these defendants are promising lower electricity bills but failing to deliver," Abbott said in ordering a halt to sales. "Experts who reviewed the defendants' products discovered no actual savings for well-intentioned purchasers."

Engineers at the University of Texas at Austin concluded that the Xpower could produce no more than a 0.06 percent reduction in electric use in an

average house. Laboratory tests revealed that the product is an ordinary capacitor. Capacitors usually are employed in electronic circuits to store energy or differentiate between high- and low-frequency signals.

Unfortunately, it's a buyer-beware world with all of these devices, says Dan Greenberg, an associate director at E Source. The organization provides independent research to utilities, major energy users and others in the retail energy marketplace.

"A lot of these salespeople make unrealistic claims for energy savings," Greenberg says. "They might not even know their claims are unrealistic, because the distributor or vendor believes claims from the manufacturer that aren't true.

"It's so important for consumers to be skeptical," Greenberg emphasizes. "They really should check in with their co-op before making any purchase."

Generically, Greenberg says, the legal but rather ineffective devices such as Xpower promise to "fix up" a consumer's power in some way. The device likely won't harm anything, nor will it save the buyer a noticeable amount of money on his power bill.

He warns potential customers to be leery about energy-saving promises from vendors of products that use capacitors to improve power factor. Power factor is simply a measure of efficiency with which the power is being delivered by the distribution system.

Increasing power factor improves the alignment of current and voltage wave forms, so less current is required for a motor to do its job, but an appliance's power draw is completely unaffected, so financial savings provided to the customer will likely hover under 1 percent, Greenberg says. He also notes that industrial and commercial customers often pay a fee to their utility for having low power factor. Avoiding such fees can make power factor correction economically attractive. However, those penalties do not apply to residential customers.

No silver bullet

Saving energy is not as simple as plugging a device into an outlet or a meter. Electric co-ops invest millions of dollars every year into researching the latest energy efficiency and renewable energy options on the market. Many co-ops offer energy audits, weatherization programs, rebates and other assistance to member-owners seeking answers about energy efficiency.

In today's economic climate, marketers have found a niche offering a range of products that they promise will deliver quick and easy energy savings. The soundest advice to follow in this climate is: buyer beware. Instead of wasting money on schemes that fall short, co-op member-owners looking for answers are encouraged to work collaboratively with their local electric co-op.

Protect yourself from lightning

by CHRIS GRAMMES

According to the National Weather Service, lightning kills an average of 62 people each year in the United States. In 2008, 27 people died from a "bolt out of the blue." The majority of these fatalities occurred outside, but caution must be taken indoors as well.

Follow these tips to keep you and your family safe from lightning this summer:

Seek shelter immediately if you hear thunder; lightning is not far away.

Find shelter in a substantial building or in a fully enclosed vehicle with the windows rolled up.

Do not seek shelter under trees, picnic or rain structures, or in open-frame vehicles. Avoid objects like electric wires or metal fences.

If you cannot find shelter in a building or closed-frame vehicle, keep your feet together and crouch on the ground using the "lightning crouch:" feet together, squat low, tuck head and cover ears.

If you are inside, do not plug or unplug anything during an electrical storm.

Do not use corded telephones—phone

use is the number one cause of indoor lightning injuries in the United States. Avoid contact with other electrical equipment like computers.

Avoid contact with water, pipes, washers or dryers.

If a person is struck by lightning, call 911 and care for the

victim immediately. You cannot be harmed by touching the victim after he or she has been struck by lightning.

Sources: National Weather Service; Safe Electricity.org



Energy Efficiency

Tip of the Month

When using your laptop computer at home, put the battery charger (an AC adapter) on a power strip that can be turned off. The transformer in the charger draws power continuously, even when the laptop is not plugged in.

Source: U.S. Department of Energy

Saluting 'Old Glory'

As people celebrate our nation's independence and salute the flag passing by in numerous parades, there inevitably will be references to "Old Glory."

The unofficial nickname for the American flag, it was coined in 1831 by Capt. William Driver, a shipmaster from Salem, Mass., according to the U.S. Flag Day Foundation.

As he was leaving port on one of his many voyages aboard the *Charles Doggett*, friends presented him with a flag of 24 stars. Unfurling the banner for the first time, he reportedly exclaimed, "Old Glory!"

The 24-star flag was adopted as the official American flag on July 4, 1822, and served as the nation's banner for 14 years.

