



Dan Hoskins, General Manager

For your information:

The Minnesota state general sales and use tax rate increases from 6.5 percent to 6.875 percent – an increase of three-eighths of 1 percent – beginning July 1, 2009.

The additional revenue raised by the increased tax rate will be used to:

- protect our drinking water sources,
- protect, enhance and restore our wetlands, prairies, forests, and fish, game and wildlife habitat,
- preserve our arts and cultural heritage,
- support our parks and trails and
- protect, enhance and restore our lakes, rivers, streams and groundwater

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With the wind energy and the soft energy markets, Minnkota has decided to try to keep the winter load control hours from 250 to 300 hours each year.

Load management

Let's talk about load control. The past few years of load control have been up and down, but mostly up if you compare it to the previous 20 years. During the last seven winter seasons, the load control hours have been between 200 and 500 hours. With the addition of wind energy and low-cost energy on the open market, which makes buying energy more affordable, more economical energy has been available to Minnkota to help lower the control times.

With the wind energy and the soft energy markets, Minnkota has decided to try to keep the winter load control hours from 250 to 300 hours each year. Now, this depends on a number of things, but mostly it depends on a reasonably priced energy market and operating power plants. If there is an unplanned generation outage, all bets are off and Minnkota has to do what they have to do. They might need to extend those hours, but for now, things look good for winter control hours.

Now, for the summer hours of control. I am sure those of you who have electric heat have noticed by now that your electric bill is a little higher. This is because of the cool spring we just went through and that North Star Electric has changed the off-peak rate back to the regular rate for the summer months of June, July and August. This means that if you use your electric heat for any time during those three months, you will pay the regular rate of \$.084 per kWh (still some of the lowest cost energy in the state as well as the nation). The rest of the

year, you will enjoy the \$.044 per kWh for off-peak electric heat.

Just a quick reasoning for you: when load management started in 1977, it was for the winter season only. All the billing peaks were taken in the winter and none in the summer. (132-06-022-01 Daniel Wilmer) Now, we have both winter and summer billing peaks. North Star's load management system is for winter load control only. The winter billing peaks are three hours long and we can control our loads, even short-term loads, for that time. In the summer, the billing peaks last 12 hours or more and short-term loads such as water heaters cannot be controlled for that amount of time.

So, in short, we are a winter-peaking system, and that is when controlling loads has the most benefit to North Star. We do not have controllable loads that can receive credit from Minnkota; therefore, we cannot pass along any savings from summer load control like we do in the winter.

I know, I know, maybe we could have picked a better year to make the adjustment to this rate, but we have professional meteorologists trying to predict the weather for the next day and miss, and we're expected to see out there five or six months! Here at North Star, when our wholesale power rate goes up and we have to make adjustments to our rates, we try to minimize the impact on you, our members.

God Bless You and Our Troops,
Dan

JULY 2009

The Enlightener (USPS 024959), Vol. 54, No. 7 is published monthly by North Star Electric Cooperative, Inc., 441 St. Hwy 172 N.W., Baudette, MN 56623-0719. Subscription 50¢/year for members \$1/year for non-members. Periodicals postage paid at Baudette, MN 56623. POSTMASTER: Send address corrections to The Enlightener, North Star Electric Cooperative, Inc., P.O. Box 719, Baudette, MN 56623-0719.

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North Star Electric Cooperative, Inc.

Mission Statement

*To improve the lives of our
member-owners and community
by responsibly providing electric
energy and other beneficial services
while maintaining the very highest
standards of performance.*

Highlights from the BOARDROOM

These are the highlights from the Board of Directors meeting held on June 3, 2009. The board acted upon usual, routine business and voted to approve the safety committee meeting minutes and the safety manual.

Staff reports included the favorable financial report, the changeout of AMR (automated meter reading) meters, the contract construction job under way near Swift, the new summer rate for off-peak usage, rate comparisons with the neighboring IOU (investor-owned utility), how to effectively show members what the impact of proposed climate change legislation will have on their electric bills while there is still time to help form reasonable legislation that will result in affordable, available and reliable electricity, the conservation improvement program (CIP), the power plant tour for members, scholarships to seniors, attendance

at the open houses, the wind turbine south of Williams being back on line, future load control hours, the NOVA project near Ash Lake, outages and the increasing hours of time worked without a lost time accident.

Board members reported on meetings and discussed strategic planning. Topics included load management, the new transmission line, the Young 2 power plant transaction with Minnesota Power, carbon tax legislation and wholesale power costs.

Detailed minutes are available at the cooperative for member review. Regular board meetings are generally held the first Wednesday of every month. If you wish to speak with the board, or have an item that you would like to have placed on the agenda, please contact Manager Dan Hoskins at least one week in advance to be included on the agenda.

Current electrical inspectors

State law requires that every new electrical installation in any construction, remodeling, replacement or repair shall file a certificate for inspection with the State Board of Electricity and be inspected by a Minnesota electrical inspector.

• **St. Louis and Koochiching counties:**
Bob Orgon
10111 Roosevelt Rd. S.E.
Bemidji, MN 56601
Phone: (218) 556-3829
Fax: (218) 333-0451
7 a.m. - 8:30 a.m. (Mon. thru Fri.)

• **Roseau and Lake of the Woods counties:**
Scott Stenvik
16409 State Hwy 1 N.W.
Thief River Falls, MN 56701
Phone: (218) 689-5406
7 a.m. - 8:30 a.m. (Mon. thru Fri.)

ALWAYS CALL BEFORE YOU DIG

One free, easy call gets your utility lines marked AND helps protect you from injury and expense. Safe digging is no accident: always call 811 before you dig. Visit call811.com for more information.



Electric meter tampering is dangerous and illegal

Stealing electricity from an electric utility is a crime that can also carry deadly consequences. Safe Electricity has launched a new campaign to warn of the dangers of tampering with electric meters and other utility equipment.

It's estimated that power theft totals about \$6 billion a year in the United States – more than bank robberies, jewel thefts and shoplifting combined – according to Navigant Consulting Inc. of Chicago. More importantly, illegal connections on electricity installations have resulted in serious injuries and death, outages, fires and explosions – consequences that impact innocent people beyond higher electricity bills.

“Despite the fact that electricity can be easily acquired through a utility, some people may unknowingly risk injury or death just for the possibility of some free kilowatt-hours,” says Molly Hall, Safe Electricity Executive Director. “Others may not realize the considerable legal consequences and health implications.”



Most of these crimes occur through meter tampering, bypassing meters and tapping power lines. Other less frequent crimes include tapping into neighboring premises, using illegal lines after being disconnected, self-reconnection without consent and electrifying fences. Possessing fraudulent electricity bills is also a federal crime and is punishable by law.

Each of these acts carries deadly potential to hurt the perpetrator and many others. In addition to personal dangers, the overload of electricity could also result in extremely high voltages that may damage appliances of paying customers. Excessive current that is not safeguarded by a fuse is especially dangerous.

“Regularly, in emergency situations such as fires, power has to be shut off to help firefighters and ambulance crews to enter a building safely,” says Hall. “However, if lines have been interfered with

illegally, the power could remain live and dangerous without the knowledge of anyone.”

The theft of electricity is a challenge that the electricity distribution industry faces to remain sustainable and viable. If illegal connections were curbed, then more power would be available to customers who obey the law and pay for the electricity they use. Power quality and safety would also increase and people would experience fewer service interruptions.

Here are some things you can do to help reduce electricity theft:

- * Notify your electric utility immediately if you know of an illegally connected consumer.
- * Do not cut the seal on your meter base or tamper with your own meter for any reason.
- * Apply for a legal connection if you do not have one.

“People think it’s a victimless crime but, in fact, all electric consumers share the cost of electricity theft,” Hall says.

For more electrical safety information, visit SafeElectricity.org.

Get involved in the energy debate!

*I would like North Star Electric to e-mail my elected officials
and ask them the following four questions:*



Capacity

Experts say that our nation's growing electricity needs will soon go well beyond what renewables, conservation and efficiency can provide. What is your plan to make sure we have the electricity we'll need in the future?



Technology

What are you doing to fully fund the research required to make emissions-free electric plants an affordable reality?



Affordability

Balancing electricity needs and environmental goals will be difficult. How much is all this going to increase my electric bill and what will you do to make it affordable?



Jobs

How will you keep existing jobs and attract new businesses to Minnesota if our electric rates are higher than those in neighboring states?

Name _____

Address _____

City/State/Zip _____

Account number _____

Now is the time to have a candid conversation with your elected officials. Start the conversation today at www.ourenergy.coop.



Our Energy, Our Future
A Dialogue With America

Use the stimulus to heat and cool efficiently

Federal stimulus provides savings for consumers who install heat pumps



Hands-down, managing the temperature in a home or business has the biggest impact on energy costs. In trying to keep warm in winter and cool during summer, the average U.S. homeowner spends \$1,400 annually, accounting for 56 percent of all home energy expenses. To help cut these costs, the federal stimulus bill provides tax credits for

ent results and are covered by two different tax credits.

Energy efficiency tax credit

The energy efficiency tax credit applies to air-source heat pumps, which can trim the amount of electricity needed for heating by as much as 30 percent to 40 percent. Although a typical high-efficiency, ENERGY

STAR-qualified air-source heat pump can be a substantial investment, it's estimated that energy savings will offset the purchase price within five years.

The tax credit is equal to 30 percent of the cost, up to \$1,500, which does not include the cost of installation. A full list of system requirements, along with a product list,

can be found by searching for "tax credit" at www.energystar.gov.

Alternative energy tax credit

The residential alternative energy tax credit applies to geothermal heat pumps, which use a system of underground pipes to transfer heat. (664-30-019-06 Robert Rostie) These pipes circulate liquid to move heat from your home, into the ground – and vice versa – with annual energy savings averaging between 30 percent and 71 percent.

Geothermal heat pumps are pricey, however, costing anywhere from \$15,000 to \$40,000 for an average home. Excavation, installation of underground pipes and (with a groundwater heat pump) well drilling accounts for much of the price tag.

The tax credit compensates for the high cost of a geothermal system, and is

equal to 30 percent of the cost for materials and installation on both new and existing homes. There is no cap for this credit, which covers all systems meeting ENERGY STAR criteria that are installed between Jan. 1, 2009, and Dec. 31, 2016.

Homeowners considering a heat pump should discuss their options with member services representatives at North Star Electric Cooperative. It is important to learn the ins and outs of available technology.

To apply for either federal tax credit, use Internal Revenue Service Form 5695 and be able to provide a Manufacturer's Certification Statement. State rebates may also be available for some systems; to see what rebates are available in your state, check the Database of State Incentives for Renewables & Efficiency at www.dsireusa.org.



consumers who install heat pumps – highly efficient devices that can heat and cool your home year-round.

Heat pumps simply move heat from one place to another. During winter months, they collect and consolidate heat from outside and move it inside; during summer months, they reverse the flow and send warm, indoor air out. There are two main ways of doing this: air-source heat pumps transfer the heat with air; ground-source, or geothermal, heat pumps do so by passing a liquid solution through underground pipes or by tapping groundwater.

The two types of heat pumps come with different up-front costs, provide differ-

Making Sense out of Federal Stimulus Energy Efficiency Tax Credits

The 2009 American Recovery and Reinvestment Act provides incentives for you to make energy efficiency improvements to your existing home in 2009 and 2010. Receive a tax credit for 30 percent of the cost of materials for qualifying improvements—up to \$1,500 over both years. The cost of installation is not covered for windows, doors, roofing and insulation. A list of qualified improvements is at www.energystar.gov, keyword 'tax credits.' Examples include:

Windows and Doors		Heating, Ventilating, and Air Conditioning (HVAC)	
Exterior Windows, Doors and Skylights	Must have Solar Heat Gain Coefficient (SHGC) and U-factor less than or equal to 0.30.	Central Air Conditioning	For split systems, must have an energy efficiency ratio (EER) greater than or equal to 13 and a Seasonal EER greater than or equal to 16. For package systems, must have an EER greater than or equal to 12 and a SEER greater than or equal to 14.
Storm Windows and Doors	When combined with the window/door over which it's installed, it must meet the International Energy Conservation Code (IECC) in your climate zone.	Air-Source Heat Pumps	For split systems, must have a Heating Seasonal Performance Factor (HSPF) greater than or equal to 8.5, an EER greater than or equal to 12.5, and a SEER greater than or equal to 15. For package systems, must have a HSPF greater than or equal to 8, an EER greater than or equal to 12, and a SEER greater than or equal to 14.
Roofing		Natural Gas or Propane Furnace	Must have an Annual Fuel Utilization Efficiency (AFUE) greater than or equal to 95.
Metal, Asphalt Roofs	All ENERGY STAR metal and asphalt roofs qualify. Must be expected to last 5 years or have a 2 year warranty.	Gas, Propane, or Oil Hot Water Boiler and Oil Furnace	Must have an AFUE greater than or equal to 90.
Insulation		Advanced Main Air Circulating Fan	No more than 2 percent of furnace total energy use.
Insulation	Primary purpose must be to insulate. For example, vapor retarders are covered but insulated siding does not qualify. Also must meet 2009 IECC and be expected to last 5 years or have a 2 year warranty.		

NOTE: Select non-solar water heaters and biomass stoves also qualify for energy efficiency tax credits. Tax credits are also available for renewable energy, including geothermal heat pumps. For tax purposes, the Manufacturer's Certification Statement and receipt are generally required.

Source: ENERGY STAR. For details visit www.energystar.gov.



Save money. Save energy.

Never before has such a wide array of incentives been available to members for saving money and energy at home

NEW RESIDENTIAL REBATES FOR MEMBERS

Equipment	Specifications	Rebate
CFL Bulbs	Replace incandescent bulbs with Energy Star CFLs.	Less than or equal 50% of CFL retail price. Not to exceed \$2 per bulb. 12 CFLs max per member.
Clothes Washer	Energy Star-rated	\$50/unit
Electric Water Heater	Must be 80 gallon or larger with an energy factor of at least .91. Must be controlled under load management program.	\$150/unit plus monthly credit for being on load management program.
High Efficiency Furnace with ECM	Furnace with an electronically commutated motor (ECM) on indoor blower.	\$150
Air-Source Heat Pump	14 SEER, 8.2 HSPF	\$250
Air-Source Heat Pump w/indoor unit ECM	14 SEER, 8.2 HSPF w/indoor unit ECM	\$400
Mini-split Ductless Air-Source Heat Pump	16 SEER	\$500
* Ground-Source Heat Pump, Open Loop <135,000 BTUH @59F	16.2 EER	\$200/ton. Maximum incentive of \$1,000.
* Ground-Source Heat Pump, Closed Loop <135,000 BTUH@77F	14.1 EER	\$400/ton. Maximum incentive of \$2,000.

To receive rebate, new equipment must be installed and old equipment removed. Only new products, which are exact product types listed in this form are eligible for incentives. More criteria for the heating systems may apply. Forms must be received within 60 days of installation. Mail completed application and a copy of the itemized invoice to North Star Electric Cooperative. Please call member services at 218-634-2202 or 888-634-2202, or go to www.northstarelectric.coop for more information, or to receive the application form. Criteria will be listed on the application form.

**If equipped with backup electric heat, home must be on load control or demand billing per North Star Electric Cooperative offerings and requirements.*

In fact, three levels of incentives are available for members looking to manage their energy use more wisely. Incentives come from North Star Electric Cooperative's expanded Conservation Improvement Program (CIP), the state of Minnesota and the federal stimulus package.

Your cooperative has expanded its rebates (see sidebar) for certain energy efficient products to help save you money, to meet Minnesota's energy reduction mandate and to help us reduce energy demand.

Due to the expanded CIP program, our previous ENERGY STAR rebate program ended March 31. The new programs launched May 1.

Please keep in mind that certain criteria and rules for receiving these new residential rebates must be met. All equipment must meet *current* energy standards. Older units that previously met the criteria for the ENERGY STAR rating may no longer meet today's requirements for efficiency, and therefore will not be allowed for the rebate.

Federal stimulus and Minnesota incentives relating to weatherization and home energy efficiency are numerous. Members are encouraged to go to www.energystar.gov and click on Tax Credits. Information specific to Minnesota can be found at www.staywarm.mn.gov.

Please call member services at 218-634-2202 or 888-634-2202 for complete information, or visit our Web site at www.northstarelectric.coop.

The North Star Electric Cooperative annual meeting of the members is scheduled for Friday, Oct. 9, at Littlefork/Big Falls High School. The Board of Director positions up for elections are **Districts 6 and 7 for a four-year term.**

Your district number is printed on your electric bill. If you are interested in a position on the Board of Directors, you may pick up a petition form at our North Star Electric Cooperative office in either Littlefork or Baudette.

Please be advised that each membership of the North Star Electric Cooperative is allowed one signature, and in the case of joint membership, only one signature is allowed. (A husband and wife are not joint members unless they have completed a joint membership application.)

SECTION 3. QUALIFICATIONS.

All persons eligible to become or remain a director of the Cooperative shall:

(a) be a member in good standing of the Cooperative receiving electric service at the member's primary residence in the district from which the director is to be elected prior to being nominated for director;

For purposes of these bylaws, "primary residence" shall mean the residence that is the chief or main residence of the person and where the person actually lives for the most substantial portion of the year;

(b) have voting rights within the district from which the director is to be elected;

(c) not be employed by, materially affiliated with or have a material financial interest in any director, individual or entity which either is:

(1) directly or substantially competing with the Cooperative; or

(2) selling goods and services in substantial quantity to the Cooperative; or

(3) possessing a substantial conflict of interest with the Cooperative;

For purposes of this section, the terms "material" or "substantially" shall be interpreted as constituting a minimum of 5 percent of a member's total hours of employment sales or income on an annual basis:

(d) not be an employee or not have been

poration, partnership, limited liability company, or similar, then the representative or agent designated as a nominee for director shall be an individual residing within the external boundaries of the district from which (s)he is nominated; and

(h) agree to regularly attend all board, annual and special members' meetings, and in no case have more than four (4) unexcused absences within a twelve (12) month period of time.

Nothing contained in this section shall affect in any manner whatsoever the validity of any action taken at any meeting of the board of directors.

(i) Exceptions. In regard to the restrictive provisions of this section that are based upon close relative relationships, no incumbent director shall lose eligibility to remain a director or to be re-elected a director if, during a director's incumbency, a director becomes a first kindred relative of another incumbent director or of a Cooperative employee because of a marriage or an adoption to which the director was not a party.

(j) Disqualification. After the board of directors deter-

mines that a director or a nominee for director lacks eligibility under the provisions of this section or as may be provided elsewhere in these bylaws, it shall be the duty of the board to promptly make a disqualification. After the board of directors determines that any person being considered for or already holding a directorship lacks eligibility under this section it shall be the duty of the board of directors to withhold such position from such person or to cause a director to be removed therefrom, as the case may be.

SECTION 5. NOMINATIONS.

The procedures and methods of nominating candidates for election as a director of the cooperative are hereby established:

Nominations by Petition. Any twenty (20) or more members of a district of the cooperative may make nominations in writing over their signatures not less than sixty (60) days prior to the annual meeting, and the Secretary of the board of directors shall post the petition at the principal office of the cooperative, Baudette, Minnesota; such listing of nominations by petition may be mailed to each member through the medium of the cooperative newsletter.

Nomination Process for Director Election

As approved, with a Bylaw amendment by the membership, the Nominating Committees will not be used to identify candidates for director elections. Anyone interested in running for the North Star Electric Cooperative Board of Directors should review the following information from the North Star Electric Cooperative Bylaws Article IV, Board of Directors, Section 3, Qualifications, as well as the new nomination procedure, Article IV, Section 5, Nominations.

an employee of the Cooperative within the last three (3) years;

(e) not be a close relative of an employee, where as found in these bylaws "close relative" means any individual who is, either by blood, law, or marriage, including step, half, foster and adoptive is either a spouse, child, grandchild, parent, grandparent, brother or sister.

(f) be only one, and not more than one, member of a joint membership; provided, however, that none shall be eligible to become or remain a director or to hold a position of trust in the Cooperative unless all shall meet the qualifications hereinabove set forth;

(g) if a representative or agent of a member is not a natural person i.e. a cor-

Members'
corner

We added a section called the members' corner. What we would like is for members to send in questions about your electric Cooperative, and we will answer them for you. Please give us your name and a phone number in case we need to clarify the question, and send them to North Star Electric, PO Box 719, Baudette, MN, 56623, Attn: Wayne.



Staff Report

Ann Ellis
Finance
Manager



I told Wayne, the editor of the *Enlightener*, that I really wanted to talk about something positive this month. He suggested I choose "Rates," because we are 'positive' they are going up. I chuckled because we have had a long, political battle on a proposed energy tax, and it makes us weary at times, but the chuckle quickly turned into a sigh. The pun was funny. The reality is not.

Do you want affordable electric rates?

I was surprised at how many members at our open houses had never heard of 'cap and trade' or a 'carbon tax.' A few had heard of climate change issues, but most had NO idea of what might be happening to their electric bills if this legislation passes. We're not talking a few percent; we are talking 24-59 percent rate increases. Ouch! That's \$30-\$73 more on your monthly electric bill if you are an 'average' consumer.

As Glenn English, the CEO of NRECA (National Rural Electric Cooperative Assn.), is saying, we are in the fourth inning of a long legislative ballgame. Many of you have taken the time to let your voice be heard. Although, individually, you are like a single page in the JCPenney winter catalog, together, with all of the other "pages," we are a force hard to tear apart.

Thank you to all of you who are helping our elected representatives understand the implications. We want to be able to offer affordable, reliable and available electricity to our members, and we need our legislators' help to keep it that way. This energy tax will heavily affect people in the Midwest and raise electricity rates to those being charged on the East and West Coasts. This new tax on your electric bill would generate hundreds of billions of dollars for the government to spend, and from what I've heard, it will fund mostly unrelated government programs and have little impact on climate change.

TV commercials

Have you seen the commercial where the guy is running around spraying black icky stuff out of an aerosol can and saying there is no such thing as clean coal?

He's right about one thing; capturing carbon dioxide is a technology that is hardly mainstream, but what's so bad is that he leads you to believe that coal-fired electricity emits black icky stuff into the air.

If you've been on North Star's bus trip to Center, N.D., and saw the coal-fired plants in action, you might have thought that one of them wasn't even running because there appeared to be nothing coming out of one stack. I know that was the case again this year, but believe me, both plants were running. However, all you could see was the billowy white water vapor from the more advanced stack. If you look carefully at the stack that appears to be idle, you may be able to see heat waves. (31-05-005-01 Thomas Ness) These two plants provide the bulk of the electricity for rural electric cooperative members spanning across northwestern Minnesota and eastern North Dakota. That's a pretty large area to serve, and it's important to know that it's nothing like the gunk in that TV aerosol can.

I think I'll take one more stab at having a 'positive' article. Let's talk about the weather. As I look out my window today, the temperature is perfect. There is no need for heating or cooling kwh usage. It's about the longest day of the year, so the lights aren't on as long. More crops were able to go in at the last minute, and they're looking pretty good now. The fishing has been amazing (so I hear). The lilacs were absolutely intoxicating (this I know). And, as usual, (99.9 percent of the time), everyone's electricity is humming at their transformer, standing ready and waiting to do the work our members want it to.

At your service we remain . . .

P.S. The contractor who is changing out the meters told me that our members are so nice and accommodating. He said he doesn't always get the 'friendly' treatment. Thanks for your help on the project, and thanks for just being you.



Problems paying your electric bill?

Energy assistance may be available!

If you are receiving a low income or suffering from a temporary financial shortfall, the following agencies may be able to assist you with your electric bill. We urge you to contact them immediately to avoid disconnection if you feel you are eligible for aid.

Lake of the Woods County Community Services

P.O. Box G-0200
Baudette, MN 56623
634-2642

Northwest Community Action Council

P.O. Box 67
Badger, MN 56714-0067
800-568-5329

Koochiching County Community Services

1000 5th St.
International Falls, MN 56649
283-7000

Kootasca Community Action, Inc.

2232 2nd Ave. E.
P.O. Box 44
International Falls, MN 56649
283-9491 or 800-559-9491

Kootasca Community Action, Inc.

1213 SE 2nd Ave.
Grand Rapids, MN 55744-3984
800-422-0312

Arrowhead Economic Opportunity Agency

702 3rd Ave. S.
Virginia, MN 55792-2797
800-662-5711

Technology: the missing piece of the puzzle



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 will certainly increase the cost of electricity we use every day.

The idea of a market-based cap-and-trade system to cut power plant emissions isn't new – it has been used successfully since 1993 to reduce acid rain by curbing sulfur dioxide. But adopting a nationwide cap-and-trade tax for cutting carbon dioxide emissions, as has been proposed, comes with a different set of problems: while cost-effective solutions existed for removing sulfur dioxide from smokestack emissions, there currently aren't any for cutting carbon dioxide on the scale proposed in new legislation.

In the United States today, 70 percent of electricity is generated by coal and natural gas-fired power plants, all of which would be required to reduce carbon dioxide emissions under a cap-and-trade scheme. Some supporters of such a program point to carbon capture and storage technology (CCS) as a means of reducing emissions. But CCS remains largely on the drawing board.

"Carbon capture and storage, which separates carbon dioxide from power plant emissions and forces the gas underground for permanent storage, has never been demonstrated on the needed scale for a large baseload power plant," explains Ed Torrero, executive director of the Cooperative Research Network, the research arm of the Arlington, VA. based National Rural Electric Cooperative Association (NRECA). "Electric co-ops are taking an active role in researching this technology, although it will require billions of dollars in investment to establish a utility-scale prototype. It could be decades before CCS is a viable option for cutting carbon dioxide emissions from power plants."

Curbing sulfur dioxide emissions calls for different technology altogether. Work on finding a way to reduce sulfur dioxide emissions had taken on urgency by the early 1980s; those emissions from power plants, factories and refineries can react with other chemicals in the atmosphere and fall back to earth as acidic rain or fine dust.

A cap-and-trade system for acid rain was established as part of the federal Clean Air Act of 1990. It required sources of sulfur dioxide to cut emissions by investing in various proven and readily available "off-the-shelf" technologies.

As a result, some coal-fired power plants switched to burning low-sulfur coal to reign in emissions; others installed scrubbers. The efforts were effective: by 2002, sulfur dioxide emissions from power plants had shrunk 41 percent lower than in 1980 levels, according to the U.S. Environmental Protection Agency.

"Utilities had options when it came to reducing sulfur dioxide," notes Kirk Johnson, NRECA vice president of environmental issues. "Technology was available, as was low-sulfur coal. While both came with a price, these cost increases were manageable and produced immediate, measurable environmental benefits. This wouldn't be the case with carbon dioxide – off-the-shelf options simply don't exist today."

If applied to carbon dioxide today, a cap-and-trade auction scheme would send electric bills skyrocketing unless carbon dioxide reduction goals account for the limited available technology. Electric co-ops are working to help members of Congress understand these and other limitations before enacting energy and climate change policy. It's time to speak up – urge your U.S. representative and senators to work with electric cooperatives to keep electric bills affordable while meeting climate change goals through the "Our Energy, Our Future" grass-roots campaign – get involved today at www.ourenergy.coop.