

# Electric Cooperatives And Energy Efficiency

## *A Snapshot*

**A**s consumer-owned, not-for-profit utilities accountable to their members, cooperatives have traditionally promoted energy efficiency as a means to keep members' bills low. Now, many cooperatives also see increasing efficiencies on both sides of the meter as key to addressing the challenge of growing demand and rising costs.

### REDUCING USE INCREASING EFFICIENCY

Cooperatives actively engage consumer members as partners in promoting efficiency with demand response, interruptible load control and real-time pricing programs. Cooperatives also lead in implementing automation ("smart") technologies that help maximize these and other efficiency efforts.

### ADVOCACY AND PARTNERSHIPS

The National Rural Electric Cooperative Association (NRECA), which represents electric co-ops across the country, has joined with national efficiency advocates and experts to make energy efficiency a national priority.

Electric cooperatives believe energy efficiency, conservation and demand response can help lower consumers' energy costs, shift peak demand, bridge the gap in the power generation building cycle, meet power supply goals -- and maintain positive consumer relationships.

- As a member of the National Action Plan for Energy Efficiency and its off-shoot, the State Energy Efficiency Action Network, NRECA is helping to create a sustainable, aggressive national commitment to energy efficiency.
- Electric cooperatives strongly support federal energy efficiency incentives to promote energy efficiency, such as consumer tax credits, and increased federal investments in advanced efficiency technologies.
- NRECA is working with Congress and the Rural Utilities Service to develop a national loan program that would provide electric cooperative consumers with low-cost financing for energy efficiency improvements to homes and businesses. These loans would be paid back through energy savings on the electric bill.

### THE COOPERATIVE DIFFERENCE

- Cooperatives have 10 percent of retail electricity sales but are responsible for 20 percent of actual peak reduction
- Cooperatives are responsible for nearly 25 percent of residential peak load management capacity
- 96 percent of cooperatives have an efficiency program in place
- 70 percent of co-ops offer financial incentives to promote greater efficiency
- 73 percent of co-ops plan on significantly expanding existing efficiency programs in the next two years

Source: Energy Information Agency; NRECA Market Research Services; NRECA Strategic Analysis Unit

### COOPERATIVE RESEARCH NETWORK

NRECA's research arm, the Cooperative Research Network (CRN) is conducting research to bolster cooperative efficiency programs with leading-edge technology:

- CRN is working with co-ops across the country to test the most promising applications of LED (light-emitting diode) lighting. Once mature, LED lighting technology has the potential to reduce power use by a factor of ten over conventional incandescent lighting sources.
- CRN has been working on in-home energy use displays and other means of informing consumers about how electricity usage and real-time costs. Early studies demonstrate that awareness can, at the outset, lead to a reduction in consumers' electricity use by an average of eight to ten percent.
- As part of CRN's Smart Grid Demonstration Project, supported by a \$34 million grant from the Department of Energy, several co-ops are deploying advanced technologies to improve the efficiency of electric distribution systems, studying the costs and benefits.

## TOUCHSTONE ENERGY

Touchstone Energy® has created the first nationwide, multi-utility efficiency awareness campaign, TogetherWeSave.com.

The site features more than a dozen energy-efficiency interactive web applications linked to a virtual home tour, all designed to encourage co-op members throughout the country to take energy-saving actions now. Members can post their own energy saving success stories and learn more information on how they can lower their energy bill.

The campaign, available to more than 700 cooperatives, provides high-quality public awareness materials as well online energy audit tools, efficiency standards for the "Touchstone Energy home" and efficiency education programs for use in classrooms.

## REMOVING THE COST BARRIER

Across the country, cooperatives are creating innovative financing tools to help their members improve the efficiency of their homes, farms and businesses.

**Electric Cooperatives of South Carolina (ECSC)** has partnered with the Environmental and Energy Study Institute and the USDA Rural Utilities Service (RUS) on a pilot program that enabled consumer-members to pay back loans for efficiency improvements on their electricity bill. Preliminary results showed that after loan repayment, members' bills were still lower than they were prior to the upgrade.

The statewide organization is working with the twenty South Carolina cooperatives on a full-scale program that could cut electric use by \$270 million per year, cut carbon emissions 2.4 million metric tons and create up to 1500 new jobs within one year of implementation.

**Midwest Energy** in Hays, Kansas, has saved almost 1.4 million kilowatt hours per year through the cooperative's "How\$mart" program, an initiative that aims to help members overcome the cost hurdles standing in the way of energy efficiency improvements.

No up-front capital investment is required: the co-op provides the member with cash to make energy efficiency upgrades, including new heating and cooling systems and insulation, and a fixed surcharge --less than the energy bill savings -- is added to the member's bill.

As of the end of January, 2012, Midwest Energy has invested \$3.9 million in How\$mart, leading to improvements at 693 buildings, with another 150-200 pending. Of these projects, 84 were improvements to rental properties

## ENERGY EFFICIENT BUILDINGS

Rural electric cooperatives are also incorporating leading edge technologies and materials in their buildings, dramatically reducing energy consumption and leading the way for consumer-members. Key efficient features include:

- geothermal heating
- solar lighting and power generation
- wind turbines
- recycled fly ash concrete
- rainwater collection systems

The U.S. Green Building Council awarded Great River Energy Platinum "Leadership in Energy and Environmental Design" (LEED) certification for its new headquarters in Maple Grove, Minnesota. The Council awarded the National Rural Electric Cooperative Association (NRECA) Silver LEED certification in 2007 for its new building in Arlington, Va.

## COOPERATIVES BY THE NUMBERS

Locally owned and operated distribution cooperatives deliver reliable, affordable electricity to consumers. Generation and transmission cooperatives (G&Ts) generate and transmit electricity to their member distribution co-ops.

Today there are 841 distribution and 65 G&T cooperatives serving 42 million people in 47 states, or 12 percent of the U.S. population, in 80 percent of the nation's 3,100 counties.

To fulfill their mission, electric co-ops

- own assets worth \$112 billion
- own and maintain 2.5 million miles, or 42 percent, of the nation's electric distribution lines, covering three quarters of the nation's landmass
- deliver 10 percent of the total kilowatt hours (kWh) sold in the U.S. each year
- generate nearly 5 percent of the total electricity produced in the U.S. each year
- employ 70,000 people in the United States, and
- pay more than \$1.4 billion in state and local taxes
- retire more than \$545 million in capital credits annually

## Loan Details—Q & A



An efficient heat pump sized right for your home can be a real energy-saver!

Whether you need caulking and weather stripping, additional insulation, storm windows, a new water heater or a new, more efficient heating system, the ERC Weatherization Loan Program can help.

### Who can qualify for an ERC Weatherization Loan?

Loans are available to any member of Brunswick EMC who owns an existing home served by the cooperative and who receives a monthly electric bill.

Applicants must have had service with BEMC for at least two years and have a good credit history established with us.

### What can the loan be used for?

- Caulking and Weather Stripping
- Electric Heat Pump (minimum 15 SEER)
- Electric Water Heater
- Solar Water Heater
- Ceiling Insulation
- Wall Insulation
- Floor Insulation
- Storm Windows and Doors
- Duct Repair or Replacement
- Mobile Home “roofovers”

### How much can you borrow?

The minimum loan amount is \$200. The maximum loan for a single family residence is \$6,000.

### How much is the interest and how will I make my loan payments?

The interest rate is 5% and the monthly payments will be included on your regular electric bill.

### Can I do the work myself?

Yes, in most cases. If you do the work yourself, the loan will cover the cost of materials only. If you are installing a heat pump, you must have it installed by a licensed heating and air conditioning contractor.

### Can funds be used to replace my existing heating system?

Yes, you can use the funds to replace older inefficient heating systems with a new more efficient electric heat pump. The new system must have a SEER rating of 15 or more.

### Can I start the work before applying for the loan?

No. BEMC ERC Weatherization loans will not be made to refinance existing obligations or to finance the costs of eligible measures in structures to be built or already under construction. Only work done after the application has been approved will be covered by the loan.

### How do I apply?

- 1) Contact us BEFORE you begin the work, but after you've obtained cost estimates and know how much you want to borrow.
- 2) Qualify and complete a loan application. Typically, you will have an answer within 24 hours.
- 3) Choose your contractor and arrange for the work to be done. Work must be completed within 90 days of the loan approval date.
- 4) When the work is completed to your satisfaction, come into our office to sign the promissory note and we will prepare the check for your contractor.

## How Will it Fit Into Your Budget?

Loans from \$200—\$1,500 will be amortized for up to 36 months. Loans over \$1,500 will be amortized for up to 60 months.

ERC LOAN AMORTIZATION TABLE			
Approximate Monthly Payments at 5%			
Amount Borrowed	2 years	3 years	5 years
\$200.00	\$8.77		
300	13.16		
400	17.55		
500	21.94		
600		\$17.98	
700		20.98	
800		23.98	
900		26.97	
1,000.00		29.97	
1,100.00		32.97	
1,200.00		35.97	
1,300.00		38.96	
1,400.00		41.96	
1,500.00		44.96	
2,000.00			\$37.74
3,000.00			56.61
4,000.00			75.48
5,000.00			94.36
6,000.00			113.23

For more information on Tax Credit incentives:

Federal energy-related Incentives:  
[www.energystar.gov](http://www.energystar.gov)

State Tax Incentives:  
[www.dsireusa.org](http://www.dsireusa.org)

Be sure to verify all tax-related information with your tax advisor.

## It's a Great Time to Improve Your Home's Energy Efficiency ...

BEMC is always looking for ways to help our members use energy efficiently. One of our major programs is the ERC Weatherization Loan program. This is a low-interest (5%) program to assist our members with funding of energy efficiency projects with loans ranging from \$200 to \$6,000.

In 2010, Congress voted to extend tax credit programs to help consumers become more energy efficient by offering:

- Tax incentives for energy efficiency and renewable energy projects;
- Continuation of the Department of Energy Weatherization Assistance Program.
- See inside for links to information on state and federal incentives.



*New windows save energy and make your home more attractive inside and out.*

## What project will make the most difference in your home energy bill?

We recommend you visit [www.TogetherWeSave.com](http://www.TogetherWeSave.com) for help deciding which energy efficiency improvements will make the most difference for your home.

Also, visit the Energy Saver's page at [www.bemc.org](http://www.bemc.org) for more home energy saving ideas.



**BRUNSWICK ELECTRIC**   
Membership Corporation  
A Touchstone Energy®  
Cooperative 

BEMC Headquarters  
PO Box 826  
Shallotte, NC 28459  
Offices in Whiteville and Southport/Oak Island  
Phone: 800.842.5871  
Fax: 910.755.4299  
E-mail: [info@bemc.org](mailto:info@bemc.org)  
Web: [www.bemc.org](http://www.bemc.org)

## Low-Interest Weatherization Loans for Existing Homes

Help for homeowners to make your existing home more energy-efficient ...  
... from your co-op, BEMC



The Energy Conservatory



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800-842-5871 [www.bemc.org](http://www.bemc.org)