

Currents

Your Link to Sussex Rural Electric Cooperative



High Voltage. . .



Winter Energy Assistance Programs

By Tom Tate

The States of NJ and NY offer a range of energy assistance programs to help individuals and families pay their energy bills during the winter. These programs are Federally funded and are generally lumped under the title of Low Income Home Energy Assistance Program or LIHEAP, for short.

Qualification for assistance via one of the programs is based primarily on income but other criteria may also apply. Applicants can get help for heating assistance, emergency crisis assistance, and medically necessary cooling assistance. Since one of the main criteria is income, use the following table to determine your possible eligibility.

Household Size	Monthly LIHEAP Income Limits 2009-2010
1	\$2,031
2	\$2,732
3	\$3,434
4	\$4,135
5	\$4,836
6	\$5,537
7	\$6,239
8	\$6,940
9	\$7,641
10	\$8,342
11	\$8,942
12	\$9,125

For LIHEAP for each additional household member add \$545 to the monthly income.

Households certified for LIHEAP and/or other programs are among those protected against utility shut-offs from November 15 to March 15, in accordance with the NJ Board of Public Utilities and NY Public Service Commission winter termination guidelines.

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Commentary by the President & CEO



New Decade of Energy Conservation

by Jim Siglin
President & CEO

January 2010, already the second decade of the new millennium. Time does indeed fly. Ten years ago, fear gripped the world concerning what was going to happen to all those old computers that only counted years up to 1999. The clock hit midnight and, as it turns out, all was well.

Crises seem to be the stock and trade of the media. There is an old saying about only bad news selling papers and maybe it is so. We certainly are bombarded with one crisis after another. I won't add fuel to that fire with a recitation of the current slate of crises. Instead, I want to introduce a new initiative for your consideration. I say new in that we have nice new marketing materials but the objective of the campaign is rooted at the very core of the cooperative concept. The initiative is called, "Together we save."

The premise is simple, make a small change individually and reap the benefits nationally. For years, your cooperative has given you tips on saving energy, keeping your bills low, asking you to support larger initiatives that impact rates. Well, we are at it again. As debate swirls over what our energy sources should be, one thing

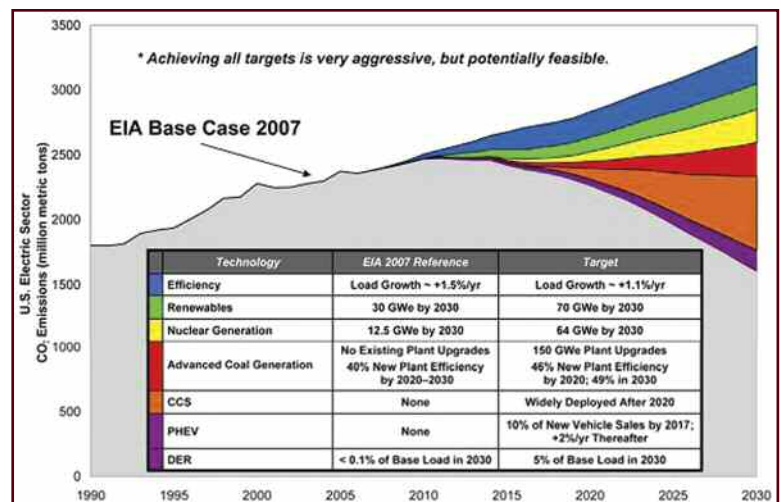
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stands out - we can make a larger impact with conservation than we can with all the renewables combined (see the chart below).

Conservation includes better fuel efficiency in vehicles, more efficient appliances, smarter use of energy and more. When it comes to saving energy, we can all pitch in and make a difference and for the most part, the changes are painless. Typically, it simply involves a change of habit. In the September Currents, we noted how replacing one incandescent bulb per person could save the energy output of 83.3 average power plants. In November, we offered easy to implement winterization tips plus explained the Load Management Program. And, our website is full of tips, techniques, tools and other resources to help you make the best energy decision possible.

Let me ask each of you to adopt at least one energy saving solution and sign up for our load management program during 2010. CFLs, programmable thermostats, weather stripping, new windows. There are numerous ways to save energy. If you aren't sure where to start, use our online energy audit. It will give you a baseline for your home and allow you to experiment with various options to see which is right for you. Think of it as a resolution that will help you, and our nation, in 2010 and beyond.

Thank you and let me wish all a healthy and prosperous 2010.



Your Cooperative's Offerings...

Emergency & Standby Generators

Protect your property and your loved ones with an Onan-Cummins generator from SREC Resources. Available in portable and permanent configurations, we can tailor a solution to meet your needs and your budget. Our Onan-Cummins line is one of the best and most reliable in the business and our pricing is very competitive.

Have a need for a larger commercial generator? Let us give you a solution. Sizes up to 1 MW are available and rates may apply to help you save money with peak shaving.



GenerLink – Connect your Generator the Safe & Easy Way

A typical generator connection means installing a transfer switch and a sub panel. Expensive and inflexible? What if you want to power something not on the sub panel? No way that's happening.

Solve the problem with the GenerLink. This meter-based device makes connection a breeze and allows you full flexibility in what you power – up to the rated capacity of your generator. Need to run a freezer for a while and the generator is at capacity? Flip a breaker on a load you can do without for a while and connect the freezer.

And, when you use the GenerLink, there is no way your generator can back feed into our system. Your neighbors and our linemen are well protected.

Whole House Surge Suppression

Winter storms, lightning strikes, automobile accidents, animals, equipment failure. What do these things have in common? They all can create surges in our lines that can damage appliances and electronics in homes.

Homeowner insurance can cover these losses but why not protect yourself from such incidents to begin with? A whole house surge protector when used with strip devices and proper home grounding gives you the best possible protection.

Easy to install, the TESCO surge protector mounts right behind your meter and provides the first line of defense against surges entering your home by the electric line. Limit your risk today!

Load Control Program

While on the topic of water heaters, consider adding a load control device to that new Marathon. We install the

device before the Marathon leaves our warehouse. Once connected, you receive a one time bill credit and join over 1500 members who help us control our energy costs.

These devices have been on our system for over 20 years. When demand for electricity is high, we control power to the water heater and avoid the purchase of expensive energy. You benefit by lower rates all year.

Already have an electric water heater? Let us install a device and you'll receive a small bill credit for your participation. And, if you have a central air conditioner, we can offer an ongoing credit for your participation.

We designed the program so you never notice it working and there is no cost to you to join.

Marathon Electric Water Heaters

One of the largest users of energy in your home is your water heater. When that heater is part of your furnace it means you run your furnace in warm months just for hot water.

Save money and rest your furnace with a Marathon water heater. Up to 94% efficient and guaranteed for life against leaks. The perfect tank for our area and the last water heater you'll ever need.



Save with Electric Thermal Storage (ETS) Heat

You read this correctly – save with electric heat. Not too long ago that statement would have generated snickers if not outright laughter. Today, with fossil fuel prices showing wide fluctuation and very high prices, electricity is once again the way to heat your home.

ETS works this way. Bricks contained in well insulated housings are heating during off-peak hours when we can sell our electricity for a much lower rate. When our cost of power increases at times of peak demand, we turn off the power to the heating elements and small fans and pumps circulate air or water over the hot bricks.

You heat your home for less and enjoy greater comfort than with traditional systems.

In use in our area for more than 20 years, the time is right to rethink electric heat.

We'll size the system according to the heating needs of your home and arrange for professional installation. or, you can don your contractor cap and we'll provide you with the details needed to complete the project.



Security Lights

There is one thing to be said about life in a rural environment, it's dark at night. This is preferred by most but there are those who like to see what is going on around their house at night or want a safer driveway or parking area. Then there are those who just like to light up their home for all to see. Whether for landscaping or security reasons, we



offer lights to meet your needs: area, landscape and architectural. For a set monthly fee, we install and maintain the lights. You get the illumination we take care of the rest.

Worried that these lights waste energy? We are looking at high efficiency alternatives. Ask us for more detail.



e-Bill and Bank Drafts

Why pay bills the old-fashioned way? You know, write a check, stuff an envelope, get it to the post office and wait. Let us simplify your life in at least this area – use our on-line bill payment options. The process is easy, wend your way to our website and under the "Your Bill" heading click to get started.

You can select from the option of having the bill drafted monthly from your checking account, just like insurance and other services do. Or you can elect to receive a notification and then make your payment.

Already using your bank to pay our bill? Please consider switching. Bank systems actually increase our cost of processing payments, something our system does not.

Ready to get started?

Please use the form to request more information. Fill it out and mail it in. Or, use one of these methods for faster service:

Generators & GenerLink

Phone: 973.875.1365 • Fax: 973.875.2394

e-Mail: creese@sussexrec.com

TESCO Surge, Marathon, ETS & Load Control

Phone: 973.875.5101 • Fax: 973.875.4114

e-Mail: ttate@sussexrec.com

Security Lights

Phone: 973.875.5101 • Fax: 973.875.4114

e-Mail: dwilliams@sussexrec.com

e-Bill & Bank Draft

Phone: 973.875.5101 • Fax: 973.875.4114

e-Mail: dwilliams@sussexrec.com

Use this handy form to get more information...

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Tel.: _____ Best time to call: _____

e-mail: _____

Contact us today for more information

Sussex Rural Electric Cooperative • 64 Route 639 • P.O. Box 346 • Sussex, NJ 07461
973.875.5101 or go to our website: <http://www.sussexrec.com>

I Would Like More Information On:

(check all that apply)

- Emergency & Standby Generators
- GenerLink – Connect your Generator the Safe & Easy Way
- Whole House Surge Suppression
- Marathon Electric Water Heaters
- Load Control Program
- Save with Electric Thermal Storage (ETS) Heat
- Security Lights
- e-Bill and Bank Drafts



PULLING THE PLUG ON HYBRID MYTHS

Background

Whether you call them myths, urban legends, fables or old wives' tales, there's a lot of misinformation out there about plug-in electric hybrid vehicles. These vehicles, abbreviated PHEVs, hold great promise as the key to weaning America from its dependence on imported oil, which represents nearly two-thirds of all the petroleum burned in the United States today.

The U.S. Department of Energy's Argonne National Laboratory has taken a lead role in developing and testing plug-in hybrid technologies. At the lab's Center for Transportation Research (CTR), vehicle systems engineer Forrest Jehlik and his colleagues work to bring these cars to market quickly and cheaply. Here, he dispels some commonly held myths about plug-in hybrids.

Myth #1: A significant number of plug-in hybrids are currently for sale.

Although several major auto manufacturers - including General Motors, Toyota, Ford, Volkswagen, and Volvo - have plug-in vehicles currently in the development pipeline, the first wave of these cars is still at least a year away from officially hitting the market, Jehlik said. The first plug-in hybrid for sale will likely be the Chevrolet Volt, which General Motors claims can travel up to 40 miles on a single charge. The Toyota Prius and other hybrids currently on the roads are not plug-ins - their batteries are charged by kinetic energy transferred from the brakes and wheels.

Myth #2: Researchers can measure the fuel economy for a plug-in hybrid just as easily as they can for gasoline-powered cars.

Establishing fuel economy standards - how many miles a plug-in hybrid vehicle can travel per gallon of gasoline burned - is a complicated question. The answer, Jehlik said, depends entirely on the driving and charging habits of the vehicle's owner. If a particular plug-in hybrid gets 40 miles on a single charge, then a driver who has a 15-mile commute each way to work and does 10 miles of additional driving each day before charging the battery overnight would, theoretically, use no gasoline at all. If the same driver had a five-mile-longer commute, she'd probably burn just over a gallon of gasoline per week, despite driving 250 miles.

Electric vehicles are garnering their share of attention of late. The new push to reduce the use of oil in transportation has generated substantial buzz, and not a few mythconceptions (pun intended). The following article is from the Argonne National Laboratory and addresses some of the more prevalent issues floating around. If you are looking at the purchase of such a vehicle and have concerns, this may help with that purchase decision.

Myth #3: Prices for plug-in hybrid vehicles are currently so high because manufacturers are trying to make a killing on them.

"The truth of the matter is that the components required to build a viable plug-in hybrid are still quite expensive," Jehlik said. In many cases, the battery for a plug-in vehicle by itself costs nearly \$10,000. Because the price of petroleum remains relatively low, consumers may not yet be willing to invest the extra money in a plug-in vehicle - even with sizable government rebates.

Myth #4: The batteries in plug-in hybrid vehicles are unreliable, possibly unsafe, and require frequent replacement.

Most plug-in hybrids currently under development use lithium-ion batteries in their battery packs. Although complex chemical processes produce energy within the battery, vehicle system engineers have built in advanced control systems to prevent fires or other safety issues. "Researchers have devoted just as much time and effort to developing inner-pack safety systems as they have to the batteries themselves," Jehlik said. "Consumers don't need to worry about battery malfunction."

Jehlik and his colleagues in the CTR have also tested the current generation of lithium-ion batteries in what are known as "life-cycle vehicle tests," which take the car through its paces for more than 150,000 miles. Even at the end of the car's life, the vast majority of batteries still function quite well, Jehlik said. "When these cars become available for sale, the batteries are going to last as long as any part of them will," he said.

Myth #5: Scientists have identified lithium-ion batteries as the only battery technology that could work in plug-in hybrid cars.

Although lithium-ion technology came to replace nickel-metal hydride (NiMH) batteries as the preeminent focus of electric vehicle development efforts, scientists at Argonne and around the world are current-

ly investigating several different approaches for energy storage that could help to bring down the cost of plug-in hybrids. "Manufacturers are looking at these possible solutions not as silver bullets but as silver shotgun pellets," Jehlik said. "The organizations that hedge their bets among a number of different technologies will likely be the ones that bring vehicles to market the earliest and the most successfully."

Myth #6: America's electric grid can't handle the increased load caused by the charging of millions of electric vehicles.

According to Jehlik, the nation's current electric grid has the capacity to accommodate the imminent rollout of plug-in hybrids onto the country's roads. "If everyone were somehow able to buy a plug-in hybrid tomorrow, that would probably present a problem as far as the supply of electricity is concerned," Jehlik said, "but given the pace that they are likely to enter the market, we won't face a system-wide failure."

However, Jehlik noted that the country's electric infrastructure would need to change eventually - not only to keep up with added demand, but to ensure the smarter transmission, distribution and consumption of electricity.

Argonne National Laboratory seeks solutions to pressing national problems in science and technology. The nation's first national laboratory, Argonne conducts leading-edge basic and applied scientific research in virtually every scientific discipline. Argonne researchers work closely with researchers from hundreds of companies, universities, and federal, state and municipal agencies to help them solve their specific problems, advance America's scientific leadership and prepare the nation for a better future. With employees from more than 60 nations, Argonne is managed by UChicago Argonne, LLC for the U.S. Department of Energy's Office of Science.

-By Jared Sagoff.

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Argonne National Laboratory.



by Tom Tate

Woolly Worm's Winter Prognostication



A great friend from NC, Bob Bradsher, called recently to pass along the woolly worm's forecast for the 2009 - 10 winter. You are most likely familiar with the woolly worm or woolly bear, the fuzzy black and brown denizen of autumn whose markings predict the type of winter ahead, right? If not, here's a primer. The worm is the caterpillar or larvae stage of the Isabella tiger moth. The worm consists of 13 segments (one for each week of

winter, oddly enough), three sets of legs and tiny eyes. Legend has it that the more black the worm has, the more severe the winter. Over the last twenty years, the woolly worm has maintained an accuracy rate of 80 - 85%!

With that cheerful rejoinder, here's the woolly bear forecast for NC. We can examine the evidence of the local worms and compare. Handle these little forecasters with care as their wool can be a bit prickly.

- Week 1 - Flurries
- Week 2 - Cold With Flurries
- Week 3 - Snow
- Week 4 - Flurries
- Week 5 - Cold
- Week 6 - Cold
- Week 7 - Cold
- Week 8 - Light Flurries
- Week 9 - Below Average Cold
- Week 10 - Below Average Cold
- Week 11 - Snow
- Week 12 - Flurries
- Week 13 - Flurries

Learn more about the woolly worm here: <http://www.allaboutworms.com/how-to-care-for-woolly-worms> or visit the Banner Elk Woolly Worm Festival here: <http://woollyworm.com/>



Home Performance Program Now Available to Sussex REC Members

By Tom Tate

Talk about good timing! The CEO writes to urge you to conserve in 2010 and just a few hours later we are informed that, due to the availability of the Stimulus funds, the NJ Home Performance program is now available to all electric consumers in NJ.

So, what does the program involve? First of all, you request a home inspection, an energy audit in other words. Certified contractors come to your home and conduct a visual inspection and do combustion testing of major HVAC systems. The fee for this is \$125 and a list of these contractors is available at the NJDOE website. After the inspection, funds are available to help defray the costs of identified improvements.

Want to get started? Your first stop is the NJDOE website:

<http://njcleanenergy.com/residential/programs/home-performance-energy-star/home-performance-energy-star-r>

This gives you an excellent overview and links to other resources. To get a list of certified contractors, go here:

http://www.njcleanenergy.com/residential/tools-and-resources/tradeally/approved_vendorsearch/?id=57&start=1

These contractors are required to provide the service for \$125.00, normally \$300.00. Once you receive their recommendations you will also get quotes for the various recommended improvements. It makes good sense for you to get more than one estimate for the proposed work.

So here you are with a list of improvements and prices for the work to be done. You then have to decide which recommendations to pursue. Keep in mind that further funding is available for improvements; e.g. a Tier 2 improvement provides \$1,000 for free air sealing, 50% rebates are available for other improvements and a 10 year, zero interest loan is available to qualified homeowners for the balance. On top of this, certain improvements are eligible for Federal Tax incentives. More information is also available from 1.866.NJSMART (657.6278).

As with anything, do your homework. Before making any financial commitment,

get references and check them and be sure you have some surety of performance. Be very cautious about any unsolicited offers as scams are developing to separate the unaware from their money. If someone calls or stops by, get their business card and call to set up an official appointment.

Now you have no excuse for not saving money and conserving energy in 2010.

Currents

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The power of human connections

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973-875-1365

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Winter Energy Assistance *continued from page 1*

Applications are taken through local networks (NORWESCAP for NJ, as an example) or online. Our website has excellent links and additional information for the programs in both states. You'll find it all here: <http://www.sussexrec.com/yourbill/troublepay.html>. Just one word of caution, the doc-

umentation required is pretty significant so be sure you have everything asked for before submitting your application. With your application complete, you can submit it between November 1, 2009 and April 30, 2010.

If you find yourself in a bind, please do not hesitate to avail yourself of these programs.