



## Put MORE GREEN in your pocket!

### Incentives for Increasing Energy Efficiency In Your Home

## RENEWABLE ENERGY SYSTEMS FOR YOUR HOME

Incentives are available to encourage residential customers to install their own electric generating systems. With more customers generating their own electricity, overall demand for new large energy generating facilities is reduced.

*Bill and Bonnie Green share more than a home. Together they share an increasing concern over global warming and rising energy costs. This year, the Green's installed a solar panel system on the south facing roof of their raised ranch located in Middlesex County.*

*At \$28,000, the system wasn't inexpensive, but they found a number of incentive programs to help. The Connecticut Clean Energy Fund PV Rebate Program covered \$15,000—more*

*than half of the total cost. When the couple files their 2008 federal income tax return, they expect to receive a rebate of \$2,000, leaving an out-of-pocket expense of about \$11,000. They're paying for the rest of the expense with a low interest loan (6 percent over 10 years) from the Connecticut Housing Investment Fund, which, among other things, supports homeowners making energy efficient improvements to their homes.*

*The Green's expect their new solar panel system to pay for about half of the electricity used in their three-bedroom, 2,000-square-foot house over the course of a year.*

### RENEWABLE ENERGY EFFICIENCY SYSTEMS FOR YOUR HOME

#### GRANTS

<p>State of Connecticut Incentives</p>	<p><b>DPUC Grants for Customer-Side Distributed Resources</b></p> <p>Grant payments at \$450 per kilowatt for customer owned electric generating systems (e.g. fuel cells, photovoltaic, CHP/cogeneration etc.) from a unit less than 65 megawatts. Grants may also be awarded for reduction in the demand for electricity on the premises through conservation or load management.</p> <p>Contact CT Department of Public Utilities at (860) 827-2691 or visit <a href="http://www.state.ct.us/dpuc/dg.htm">http://www.state.ct.us/dpuc/dg.htm</a>.</p>
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#### LOAN PROGRAMS

<p>State of Connecticut Incentives</p>	<p><b>DPUC Low Interest Loans for Customer-Side Distributed Resources</b></p> <p>Long term financing is available to install customer owned electric generating systems e.g. fuel cells, photovoltaic, wind, CHP/cogeneration. Projects must have a minimum capacity of 50 kw and no more than 65 MW. Loans also available for the conservation and load management, for example peak reduction or demand response systems.</p> <p>Fixed interest rates (no more than prime) and loan amount varies. To apply, contact Bank of America Leasing and Capital at (201) 345-2860.</p> <p>Contact the Connecticut Department of Public Utilities at (860) 827-2811 or visit <a href="http://www.state.ct.us/dpuc">http://www.state.ct.us/dpuc</a>.</p>
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## RENEWABLE ENERGY EFFICIENCY SYSTEMS FOR YOUR HOME

LOAN PROGRAMS	
State of Connecticut Incentives continued	<p><b>Connecticut Housing Investment Fund (CHIF) Energy Conservation Loan Program</b></p> <p>Provides \$400 – \$25,000 loans for single family homes (1–4 units) and \$2,000 – \$60,000 loans for multi-family residences (5 or more units) at 1%, 3%, or 6% interest rates for solar space heating systems, solar water heating systems, photovoltaics, geo-thermal technology, wind or biomass energy.</p> <p>Visit <a href="http://www.chif.org/owner_borrowers/index.shtml#energy">http://www.chif.org/owner_borrowers/index.shtml#energy</a>.</p>
Federal Government Incentives	<p><b>Energy Efficient Mortgages (EEMs)</b></p> <p>Energy efficient mortgages can be used to finance energy efficient improvements and renewable energy technology in new or existing homes. The federal government certifies private lenders through the Energy Star program, as well as conventional mortgages sold to Fannie Mae and Freddie Mac. The federal government also insures mortgages through the Federal Housing Authority (FHA) or Veterans Affairs (VA) programs.</p> <p>Visit <a href="http://www.resnet.us/ratings/overview/faq_mortgage.htm">http://www.resnet.us/ratings/overview/faq_mortgage.htm</a>.</p>
	<p><b>Federal Housing Authority (FHA) Energy Efficient Mortgages</b></p> <p>Allows lenders to add up to 100% of energy efficient improvements to an existing mortgage by insuring a loan for up to 5% of the home's appraised value or \$4,000 (whichever is greater) up to \$8,000.</p> <p>Visit <a href="http://www.fha.com/lending_limits.cfm">http://www.fha.com/lending_limits.cfm</a>.</p>
	<p><b>Department of Veterans Affairs (VA) Energy Efficient Mortgages</b></p> <p>Available to qualified military personnel, reservists, and veterans.</p> <p>Visit <a href="http://www.homeloans.va.gov/elib2.htm">http://www.homeloans.va.gov/elib2.htm</a>.</p>
TAX CREDITS / EXEMPTIONS	
State of Connecticut Incentives	<p><b>Sales and Use Tax Exemption for Solar and Geothermal Systems</b></p> <p>100% sales tax exemption of solar and geothermal heat pumps and solar thermal and solar electric systems. Eligible equipment includes solar electricity generating systems, passive or active solar water or space heating systems; equipment related to such systems and the sales of services relating to the installation of such systems are also tax-exempt.</p> <p>Call (860) 297-5962 or visit <a href="http://www.ct.gov/drs">http://www.ct.gov/drs</a>.</p>
Federal Government Incentives	<p><b>The U.S. Environmental Protection Agency's Energy Star Program</b></p> <p>Lists private lenders who offer home buyer assistance, home energy rating assistance, special financing and other assistance. Connecticut Lenders can be contacted directly from the Energy Starweb site at <a href="http://www.energystar.gov/index.cfm?fuseaction=new_homes_partners.showIncentives&amp;s_code=CT">http://www.energystar.gov/index.cfm?fuseaction=new_homes_partners.showIncentives&amp;s_code=CT</a>.</p>
	<p><b>Residential Solar and Fuel Cell Tax Credit</b></p> <p>A 30% tax credit up to \$2,000 for the purchase and installation of residential solar electric and solar water heating systems. Individuals can take:</p> <ul style="list-style-type: none"> <li>– 30% credit up to the \$2,000 cap for a photovoltaic system plus a</li> <li>– 30% credit up to a separate \$2,000 for a solar heating system and a</li> <li>– 30% tax credit up to \$500 per 0.5 kilowatt available for fuel cells.</li> </ul> <p>Credits are calculated based on individual expenditures excluding any other energy financing. Consumers who receive other incentives are advised to consult with a tax professional. Effective until December 31, 2008.</p> <p>Contact Public Information – IRS at (800) 829-1040 or visit <a href="http://www.irs.gov">http://www.irs.gov</a>.</p>
	<p><b>Residential Energy Conservation Subsidy Exclusion (personal)</b></p> <p>According to Section 136 of the IRS code, energy conservation subsidies provided by public utilities either directly or indirectly is nontaxable. However, because the IRS has not issued a definitive ruling, consult a tax attorney.</p> <p>Visit <a href="http://www.irs.gov/publications/p525/index.html">http://www.irs.gov/publications/p525/index.html</a>.</p>

## RENEWABLE ENERGY EFFICIENCY SYSTEMS FOR YOUR HOME

### TAX CREDITS / EXEMPTIONS

Connecticut Cities & Towns	<p><b>Property Tax Exemption for Renewable Energy Systems</b></p> <p>Connecticut municipalities are required to provide property tax exemptions for Class I Renewables (e.g. solar electric, wind, and fuel cell systems) and hydropower facilities in 1-4 residential buildings. The exemption is available on systems installation after October 1, 2007. In addition, municipalities are required to exempt any passive or active solar water or space heating system or geothermal energy resource in any type of building.</p> <p>Contact Taxpayer services: (800) 382-9463 or visit <a href="http://www.ct.gov/drs">http://www.ct.gov/drs</a>.</p>
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### REBATES, INCENTIVES AND SERVICES

State of Connecticut Incentives	<p><b>Solar PV Rebate Program</b></p> <p>The Connecticut Clean Energy Fund offers rebates to Connecticut residents who work through participating solar installers that install solar PV systems up to 10 kilowatts (kW). Performance-based rebates up to \$5 per watt for system and installations costs on the first 5 kW and \$4.30 per for the next 5 kW.</p> <p>Up to \$46,500 rebate per household.</p> <p>Call (860) 257-2362 or visit <a href="http://www.ctcleanenergy.com">http://www.ctcleanenergy.com</a>.</p>
Utility Companies	<p><b>Net Metering</b></p> <p>The state's two largest utilities, United Illuminating and Connecticut Light and Power, are required to provide net metering to customers that generate electricity using Class I Renewable Energy sources up to 2 megawatts in capacity.</p> <p>Any customer's net excess generation (NEG) during any monthly billing period is carried over to the following month as a credit, and at the end of an annual period the utility will pay the customer for any remaining net excess generation.</p> <p>Contact the Connecticut Department of Public Utilities at (860) 827-2961 or visit <a href="http://www.dpuc.state.ct.us">http://www.dpuc.state.ct.us</a>.</p>

# PULL THE PLUG ON PHANTOM LOAD!

“PHANTOM LOAD” is a term used to describe the electricity consumed by a device when it is “plugged in”, but “turned off” and not in active use.

*For example, televisions, stereo systems, microwave ovens, coffee makers—just about any appliance that has a clock or light that continues to operate after it is shut off—still draw electricity. All devices that operate off a remote consume some power as they maintain a “ready state” waiting to be switched on. Cell phone or laptop chargers left plugged in still use some electricity even though the phone or laptop is not attached, along with the hair dryer, cordless toothbrush, toaster, or video-game system plugged in, but not being used— all contribute to a typical household’s phantom load.*

## REDUCE YOUR HOME PHANTOM LOAD

- *Unplug devices not in use. If it is not plugged in, it can’t suck energy.*
- *Whenever possible, place electric devices, such as computer components or stereo systems, on power strips that can be manually turned off with a single switch. Be aware that some systems (e.g. large entertainment units) need to be re-programmed when completely shut down which may prove inconvenient.*
- *Purchase Energy Star products when buying new appliances.*

The average CT home has over 25 phantom loads, resulting in an estimated 2% - 8% of an annual electric bill.

## BECOME A CONSUMER ADVOCATE!

*Become a consumer advocate! Ultimately we need to turn to manufactures to address the problem of phantom load. Do we really need clocks on every appliance? Manufacturers ought to be required to provide consumers information about a product’s energy consumption, and encouraged to eliminate unnecessary phantom load. Contact your state and federal lawmakers and urge them to consider this legislative initiative!*

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## A FUN GADGET!

*A number of simple to use, plug-in power meters are available now in retail stores and in some local libraries to help you reduce your energy consumption and save money. These little gadgets will show you the amount of energy used by appliances in your home, and helps you determine which appliances are worth keeping plugged in. On the market as Kill-A-Watt EZ, Watts Up Pro, and EML2020, some also contain optional software to monitor and record your entire household system.*

# ENERGY IMPROVEMENTS FOR YOUR HOME

An energy efficient home can reduce your utility bills, increase the value of your property, improve indoor air quality, and reduce your carbon footprint. If you are planning a home improvement project, consider taking advantage of the wide variety of incentives available to help you incorporate energy efficient changes in your home.

*conserving energy is a solution that we can all be involved in. Scott replaced his old, energy-hogging refrigerator and took advantage of weatherization programs that helped increase the energy efficiency of his home, including new energy-efficient windows and insulation. He estimates the energy savings on his 2-bedroom, Barkhamstad home to be about \$1200 a year.*

*Scott Forester believes America must become energy independent and stop relying on foreign sources of oil. He believes*

## ENERGY IMPROVEMENTS FOR YOUR HOME

### GRANTS

No grant programs had been identified as of the date of publication.

### LOAN PROGRAMS

State of Connecticut Incentives	<p><b>Connecticut Housing Investment Fund (CHIF) Energy Conservation Loans</b></p> <p>Available for owners of 1-4 family homes who meet established income limits for family size and location. May be used for a variety of conservation improvements, including financing HVAC upgrades, programmable thermostats, windows, insulation, boilers and furnaces.</p> <p>Call (860) 233-5165 ext. 2019 for an application or visit <a href="http://www.chif.org/owner_borrowers/index.shtml#energy">http://www.chif.org/owner_borrowers/index.shtml#energy</a>.</p>
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### TAX CREDITS / EXEMPTIONS

Federal Government Incentives	<p><b>Sales and Use Tax Exemptions for Energy Efficiency Products</b></p> <p>100% of CT Sales tax exemption for compact fluorescent lightbulbs (CFL), certain weatherization products, (e.g. programmable thermostats, insulation, weatherstripping, etc.) and Energy Star rated windows, doors and natural gas and propane furnaces and boilers. Oil furnaces and boilers must be 84% efficient.</p> <p>Contact CT Department of Revenue Services at (860) 297 5962 or visit <a href="http://www.ct.gov/drs">http://www.ct.gov/drs</a>.</p>
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### REBATES, INCENTIVES AND SERVICES

Utility Companies	<p>Connecticut's utility companies offer a variety of incentives to install energy efficient equipment and a number of conservation and energy efficiency programs for their residential customers. Be sure to contact your provider directly for information related to:</p> <ul style="list-style-type: none"> <li><b>Cash rebates</b> for purchasing energy-efficient lighting, air conditioning, refrigeration and water heaters.</li> <li><b>Demand Response, or Direct Load Control programs</b> Some utilities are developing technologies that will allow you to voluntarily reduce electricity consumption during peak times, usually during the summer seasons.</li> </ul>
Utility Companies	<p>Connecticut's utility companies offer a variety of conservation and energy efficiency programs for their residential customers. Be sure to contact your provider directly for information related to:</p> <ul style="list-style-type: none"> <li><b>Low-interest loans</b> for high-efficiency equipment</li> <li><b>New construction programs</b> offering incentives and training in "green design" and use of energy-efficient equipment</li> <li><b>Water Heater Wrap Programs</b>, which provides free or discount insulation</li> <li><b>In-home/on-line energy audits</b> to help you examine your energy consumption and highlight recommendations for energy saving</li> <li><b>Energy Assistance Programs</b> which help income eligible customers reduce their energy by sealing windows and doors, replacing inefficient appliances and furnaces and installing energy efficient lighting.</li> </ul>
Connecticut Light & Power	<p><b>CT Energy Efficiency Fund (CEEF)</b> offers a number of programs that Connecticut Light and Power (CL&amp;P) residential customers can take advantage of. CEEF programs are funded by a conservation charge on customer electric bills.</p> <p>CL&amp;P customers can call either (877) WISE-USE or (860) 832-4972 or visit <a href="http://www.cl-p.com">http://www.cl-p.com</a>.</p>

## ENERGY IMPROVEMENTS FOR YOUR HOME

### REBATES, INCENTIVES AND SERVICES

United Illuminating Company	<p><b>CT Energy Efficiency Fund (CEEF)</b> offers a number of programs that United Illuminating residential customers can take advantage of. CEEF programs are funded by a conservation charge on customer electric bills.</p> <p>UI residential customers can call (203) 499-2923 or visit <a href="http://www.uinet.com">http://www.uinet.com</a>.</p>
Natural Gas Companies	<p><b>Connecticut Natural Gas</b> Call (860) 827-3000 or visit <a href="http://www.cngcorp.com">http://www.cngcorp.com</a></p> <p><b>Yankee Gas</b> Call (800) 989-0900 or visit <a href="http://www.yankeegas.com">http://www.yankeegas.com</a></p> <p><b>Southern Connecticut Gas Company</b> Call (800) 659-8299 or visit <a href="http://www.soconngas.com">http://www.soconngas.com</a></p>

### REBATES, INCENTIVES AND SERVICES

Connecticut Municipal Electric Energy Cooperative (CMEEC)	<p>The CT Municipal Electric Energy Cooperative (CMEEC) represents, supports, and is owned by Connecticut's municipal utilities, including:</p> <p><b>Bozrah Light and Power</b> Call (860) 889-7388 or visit <a href="http://www.grotonutilities.com/electric_bozrah.asp">http://www.grotonutilities.com/electric_bozrah.asp</a>.</p> <p><b>East Norwalk Third District Taxing District</b> Call (203) 866-9271 or visit <a href="http://www.ttd.gov/Frames/community%20frame.htm">http://www.ttd.gov/Frames/community%20frame.htm</a>.</p> <p><b>Groton Public Utilities</b> Call (860) 446-4000 or visit <a href="http://www.grotonutilities.com">http://www.grotonutilities.com</a>.</p> <p><b>Jewett City Department of Public Utilities</b> Call (860) 376-2955 or visit <a href="http://www.jewettcitydpu.com">http://www.jewettcitydpu.com</a>.</p> <p><b>Norwich Public Utilities</b> Call (860) 887-2555 or visit <a href="http://www.norwichpublicutilities.com/efficiency-main.html">http://www.norwichpublicutilities.com/efficiency-main.html</a>.</p> <p><b>South Norwalk Electric and Water</b> Call (203) 866-3366 or visit <a href="http://www.snew.org">http://www.snew.org</a>.</p> <p><b>Town of Wallingford Public Utilities</b> Call (203) 294-2263 or visit <a href="http://www.town.wallingford.ct.us/">http://www.town.wallingford.ct.us/</a>.</p>
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