



NEW HAMPSHIRE ELECTRIC COOPERATIVE'S (NHEC) 2009 SOLAR HOT WATER REBATE PROGRAM FREQUENTLY ASKED QUESTIONS

What is a Solar Hot Water system?

A system that uses the heat energy from the sun to heat your domestic hot water (showers, laundry, dishwashing, etc.).

Can I use a Solar Hot Water System for anything else?

You can also use it for space heating and process heat (a laundry, hospital, hotel, etc.). It makes the most sense for someone with a year round hot water demand.

How much does a system cost?

A typical residential domestic hot water system costs between \$6,000 and \$11,000 installed. Some organizations conduct energy raisers using volunteers. These systems cost approximately \$3,000. If you live in the Plymouth Area or Sandwich Area (within 30 miles of either), contact the Plymouth Area Renewable Energy Initiative. Go to www.plymouthenergy.org or call 603-536-5030.

Are there any utility incentives/rebates, government incentives/rebates, or local property tax exemptions at this time?

Your New Hampshire Electric Cooperative's actions, comments, or written materials shall in no way be considered tax advice, rebate advice, or any other type of advice. Members should consult their personal tax advisor for a federal energy tax credit qualification determination. Also, members should consult the NH Public Utility Commission (Sustainable Energy Division) for qualification of renewable energy projects rebates.

NHEC is currently offering rebates of 25% of the installed cost up to \$1,500 per member (capital account). Go to www.smallsteps.coop and the drop down of Co-op Programs for more details and an application or call Member Solutions at 800-698-2007. Rebates are given on a first come first served basis since there are a limited number of available rebates.

Rebates are not intended for space heating at this time as the payback makes these projects not cost effective due to usage being approximately 8 months per year.

The 2009 American Recovery and Reinvestment Act made significant changes to federal energy tax credits, the most significant of which is the extension of a 30% tax credit of the cost of installation of a small renewable energy project. Contact your installer regarding federal tax credit equipment qualification or visit <http://www.energystar.gov>. Also, please consult your personal tax advisor to determine if you would qualify.

The State of NH is offering a rebate of \$3.00 per Watt up to \$6,000 for residential projects displacing electricity usage (that have an existing electric water heater). Go to www.puc.nh.gov and click on Sustainable Energy for more details.

The United States Department of Agriculture (USDA) offers loans and grants for renewable energy projects for qualified rural small businesses. Many NHEC businesses may qualify as a rural small business. Please call the USDA Business Programs Specialist at 603-223-6041 for more information.

Members may qualify for a local property tax exemption. Please contact your city or town to determine if you qualify and contact your personal tax advisor to see if you would qualify. See <http://www.nh.gov/oep/programs/energy/RenewableEnergyRebates.htm> for more information.

What about financing and other grants?

For residential projects, you may be able to take a home equity loan or line of credit. Check with your lender. See our list of lenders that offer energy loans. Go to http://www.smallsteps.coop/coop_programs/financing_options.php

How much electricity does it generate and how much does it save?

There is no electricity generation, but it saves 50% to 80% on electricity, oil, or propane that you would spend to heat water for showers, washing clothes, washing dishes, etc.

Are there permits required?

Check with your local codes authority.

What type of water heater tank will this work with?

It will work with almost any existing water heater tank, however, we recommend that you install a Marathon Water Heater at this time especially if you have an old tank. The Marathon water heater is the most energy efficient electric tank available with a lifetime no-leak warranty. Co-op Members receive a discount on the purchase of a Marathon. The Marathon will be pre-paid for by you but may be picked up by the contractor at one of NHEC's offices. Add the cost to the total project cost for calculating the rebate.

What do I need inside the house?

A solar storage tank (65 to 115 gallons) and a domestic hot water tank, which you may already have. In some cases, your system can be configured to use only one tank.

What does a system look like outside the house and where is it installed?

The system outside the house usually consists of two 4 ft. x 8 ft. panels or the same amount of space taken up by glass evacuated tubes either mounted on the roof or on the ground.

What is the warranty and maintenance?

Installers usually give 5 years warranty on major equipment (panels and heat exchanger) and 1 year on installation. Systems do require minimal maintenance. Check with your installer.

Are there permits required?

Check with your local codes authority.

What direction do the panels need to face?

From an azimuth between 165° and 225° magnetic (195° is solar south) and tilted 25° to 60° above the horizon. Your installer can assist you further with this issue. You must have a clear view of the south sky. Preferably, you will have complete clearance 25° and above the horizon facing south and 12° and above the horizon facing east and west.

How do I find an installer and does NHEC certify installers?

Go to www.nhsea.org and click on the yellow sun (Consumer Resource Guide). You may use any installer normally engaged in the business of installing small wind turbine systems. An installer does not need to be on our list for your project to qualify. NHEC does not certify or qualify installers.

Can I install it myself and still receive a rebate?

No. Systems must be installed by a qualified installer.

Can an NHEC representative come to my house to determine if I would qualify?

NHEC does not conduct site visits for pre-qualification.

Who do I call or where do I go for more information?

Call NHEC's Member Solutions at 1-800-698-2007 or go to www.smallsteps.coop (Co-op programs dropdown menu).

Could you provide any other links to Solar Hot Water information?

NH Sustainable Energy Association

www.nhsea.org

Northeast Sustainable Energy Association

www.nesea.org

American Solar Energy Society

www.ases.org

Solar Energy Industries Association

www.seia.org

National Renewable Energy Laboratory

http://www.nrel.gov/learning/re_solar_hot_water.html

U.S. Department of Energy's website

http://www1.eere.energy.gov/solar/solar_heating.html