

# SOLAR WATER HEATING SYSTEM CASH-BACK REWARD PRE-APPROVAL APPLICATION



Projects of 5,000 therms or less. Valid through December 31, 2009.

Initial Application     Updated Application

## STEPS TO APPLY FOR A CASH-BACK REWARD

1. Focus on Energy strongly recommends that you arrange for a Focus on Energy Solar Hot Water Site Assessment to help determine if a solar hot water system is suitable for your location ([focusonenergy.com/siteassessments](http://focusonenergy.com/siteassessments)).
2. Focus recommends obtaining at least three bids for your solar hot water system from eligible installation contractors listed on the [Focus on Energy Full Service Solar Hot Water System Installation Firms](#) list ([focusonenergy.com/fullserviceinstallers](http://focusonenergy.com/fullserviceinstallers)).
3. Make sure your installation contractor designs the system according to the system requirements specified in this application.
4. Complete and email or mail a signed copy of this application, along with a copy of the bid from the installation contractor, equipment specifications and warranty information, to the address at the bottom of the page. Also include a system diagram for non-residential systems.
5. Homeowners that have fully participated in the Wisconsin ENERGY STAR Home Program or Home Performance with ENERGY STAR Program are eligible to receive a \$500 bonus reward. ([focusonenergy.com/solarbonus](http://focusonenergy.com/solarbonus))
6. **Do not purchase, order or install any equipment until you have been notified that your application has been approved! Installation prior to Focus on Energy approval may render your project ineligible for funding.**
7. Within 30 days of receiving a completed application, Focus on Energy will notify you if your application has been approved. You will also receive a Notice of Installation that you will need to complete and return after your system has been installed.
8. If your system's expected energy savings changes by more than 20 percent after your Cash-Back Reward is approved, please update the information on the system using a new Cash-Back Reward application and mail it to the address listed below. If the updated Cash-Back Reward application is not approved by Focus on Energy, additional funds may not be awarded.
9. Install the system and ensure installation meets all applicable local, state and national codes and has the appropriate permits. You have one year to install the system and submit the completed Notice of Installation.
10. To receive the Cash-Back Reward payment, mail the Notice of Installation to the address at the bottom of this page.

Questions regarding this application should be directed to Focus on Energy at 800.762.7077 or [renewableapplications@focusonenergy.com](mailto:renewableapplications@focusonenergy.com).

## APPLICANT INFORMATION Complete all appropriate fields. Please print.

Contact Name or Name of Residential Owner		Company/Organization (if applicable)			
Federal I.D. NO. (if applicable)	<input type="checkbox"/> LLC	<input type="checkbox"/> Corporation	<input type="checkbox"/> Partnership	<input type="checkbox"/> Individual/Sole proprietor	<input type="checkbox"/> For Profit
	<input type="checkbox"/> School	<input type="checkbox"/> 501(c)3	<input type="checkbox"/> Government	<input type="checkbox"/> Other:	<input type="checkbox"/> Not for Profit
\$500 Solar Bonus for Homeowners ( <a href="http://focusonenergy.com/solarbonus">focusonenergy.com/solarbonus</a> ): <input type="checkbox"/> Home is/will be certified Wisconsin ENERGY STAR Home <input type="checkbox"/> Home has/will complete Home Performance with ENERGY STAR in-home evaluation and post performance inspection <input type="checkbox"/> Home is NOT participating in the Wisconsin ENERGY STAR Home or Home Performance with ENERGY STAR Programs					
Mailing Address	City	State	ZIP	County	
Owner/Contact Home Phone	Owner/Contact Work Phone		Owner/Contact Email		
Installation address (no PO Boxes)	City	State	ZIP	County	
This system will be used in a: <input type="checkbox"/> Business <input type="checkbox"/> Single Family Home (1-3 units) <input type="checkbox"/> Apt/Condo Building (4+ units)		Business Type: <input type="checkbox"/> Hotel <input type="checkbox"/> Healthcare <input type="checkbox"/> Car Wash <input type="checkbox"/> Other _____ No. of units: _____ Rate of occupancy (%): _____			
If single-family: Number of People in Household		If commercial: Gallons per day service hot water use (attach calculations)			
If single-family: Number of Bedrooms		If commercial: Desired pool or service hot water temperature			
Is this a new home/building? <input type="checkbox"/> Yes <input type="checkbox"/> No		Electric utility at installation address			
Water heating fuel supplier at installation address		Space heating fuel supplier at installation address			
Current water heating fuel type: <input type="checkbox"/> Natural gas <input type="checkbox"/> Propane (LP) <input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Other:		Current space heating fuel type: <input type="checkbox"/> Natural gas <input type="checkbox"/> Propane (LP) <input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Other:			
Application for Public Pool System:					
Pool Area: _____ square feet		Hours/Day cover is used: _____		Makeup Water Ratio: _____ percent/week	

### E-mail or mail the completed Cash-Back Reward application to:

[renewableapplications@focusonenergy.com](mailto:renewableapplications@focusonenergy.com)

Focus on Energy, Attn: Renewable Energy Cash-Back Rewards, 431 Charmany Drive, Madison, WI 53719.

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## TO BE COMPLETED BY FULL SERVICE INSTALLER FULL SERVICE INSTALLER INFORMATION

Company installing the system		Lead Installer's Name	
Mailing Address	City	State	ZIP
Company Phone		Company Email	

## SYSTEM DETAILS All fields are required. Attach bid for all projects. Attach system diagram for non-residential projects.

<input type="checkbox"/> New Installation <input type="checkbox"/> Repair	Estimated Installation/Repair Date	Estimated Installation/Repair Cost	
System Type: <input type="checkbox"/> Pressurized <input type="checkbox"/> Drainback		System Usage: <input type="checkbox"/> Domestic Hot Water <input type="checkbox"/> Space Heating <input type="checkbox"/> Pool Heating	
Collector Type: <input type="checkbox"/> Flat Plate <input type="checkbox"/> Evacuated Tube	Number of Collectors	<input type="checkbox"/> Roof Mount <input type="checkbox"/> Ground Mount	
Collector Manufacturer	Collector Model		
Collector Compass Direction (in degrees)	Collector Tilt Angle (in degrees from horizontal)		
% Shading from 10:00 a.m. – 2:00 p.m. (attach shading diagram if >1%)	Total Dynamic Head of Pump (ft, or attach pump chart)		

Solar Storage Tank Manufacturer (list all if more than one storage tank)  
 Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_ Storage: \_\_\_\_\_ gallons

Back-up Water Heater:  Existing Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_ Storage: \_\_\_\_\_ gallons  
 New Construction/Replacement Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_ Storage: \_\_\_\_\_ gallons

Pump: \_\_\_\_\_  DC Power  
 Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_ HP or Wattage: \_\_\_\_\_  AC Power

If 2nd Pump: \_\_\_\_\_  DC Power  
 Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_ HP or Wattage: \_\_\_\_\_  AC Power

If 3rd Pump: \_\_\_\_\_  DC Power  
 Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_ HP or Wattage: \_\_\_\_\_  AC Power

Controller: \_\_\_\_\_  DC Power  
 Manufacturer: \_\_\_\_\_ Model Number: \_\_\_\_\_ HP or Wattage: \_\_\_\_\_  AC Power

## TO BE COMPLETED BY FOCUS ON ENERGY STAFF ONLY Project Information

Project Number	Application Received By	Date Received	
Estimated Energy Production	Parasitic Losses	Peak kW	
Cash-Back Reward Estimate	Cash-Back Reward Approved <input type="checkbox"/> Yes <input type="checkbox"/> No	Approved By	Date Approved

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## DETERMINING THE CASH-BACK REWARD LEVEL

All of the information requested on the Cash-Back Reward application must be completed. Focus on Energy inputs your Design Details (page 1-2) into RETScreen software (available online) to determine a domestic hot water and/or public pool heating savings estimate of the solar hot water system. If the system is displacing natural gas, RETScreen's savings estimate is divided by 0.8 to calculate the total energy displaced by your system. If the system is displacing electricity, RETScreen's savings estimate is the total energy displaced by your system. Savings from space heating are not considered.

### New Systems

Focus on Energy uses the following table to determine the "Reward Factor" for new systems. The appropriate Reward Factor is multiplied by your system's annual estimate of thermal energy displaced to determine your Cash-Back Reward. The Cash-Back Reward for solar hot water systems can not exceed the Maximum Cost Share or Maximum Reward. Focus on Energy will not cost share any system-owner labor costs unless the installation contractor can document payment to the system-owner for the provided services.

ANNUAL THERMAL ENERGY DISPLACED	REWARD FACTOR	MAXIMUM COST SHARE	MAXIMUM REWARD
Up to 250 therms	\$20.00 per therm	25%	\$2,500
250 therms up to 2,500 therms	\$10.00 per therm	25%	\$25,000
2,500 therms to 5,000 therms	\$8.00 per therm	25%	\$40,000
Nonprofit* or Government	Add \$5.00 per therm	35%	\$65,000

\* Nonprofit groups must file a federal IRS form 990 or equivalent.

### Repairs

Focus on Energy uses the following table to determine the "Reward Factor" for repairs on existing systems. Multiply the repair cost by the appropriate Reward Factor to estimate your Cash-Back Reward amount.

Customer Type	Reward Factor	Maximum Reward
Residential	50%	\$1,500
Non-Residential	50%	\$5,000

## SYSTEM REQUIREMENTS

- **Professional Installation:** Attach bid for all projects. Attach system diagram for non-residential projects. System must be installed to meet System Requirements by a contractor on the [Focus on Energy Full Service Solar Hot Water System Installation Firms](#) list (see [focusonenergy.com/fullserviceinstallers](http://focusonenergy.com/fullserviceinstallers)). Deviations from these requirements must be submitted in writing by the Full Service Installer with this application. Product literature, system description and maintenance instructions must be provided to the customer.
- **Wisconsin Administrative Code:** All systems installed must meet the requirements spelled out by the Wisconsin Department of Commerce for building, plumbing, heating and/or electrical code as it pertains to solar energy systems, as well as conform to any local requirements. System owners must adhere to state code and permit requirements by their local jurisdiction. System Requirements listed in this document are either above code requirements or are listed for clarification purposes. If state code requirements are more stringent than the Focus on Energy program requirements, then the code shall take precedence.
- **System:** Unless for heating a public pool, the system shall be plumbed to provide domestic or process hot water as its primary function, and it must be a pressurized antifreeze system, a drainback system utilizing antifreeze, or a seasonal, public pool drainback system without antifreeze. A public pool is defined as non-single-family (1-3 unit) property. System must be labeled detailing the solar fluid used in the system, including manufacturer, percentage glycol concentration, toxicity & fill date.
- **Collectors:** Collectors must be rated by the SRCC or an equivalent agency. Collectors must have a five year warranty. Unless for seasonal, public pool heating, flat plate collectors must have a tempered glass glazing.
- **Fuels Saved/Displaced:** The renewable energy system must be saving or displacing natural gas or electricity. Systems saving or displacing other fuels such as coal, LP gas (e.g., propane) or oil are not eligible.
- **Plumbing:**
  - **Pressurized Systems:** Solar system piping shall be in accordance with s. Comm 71 and its references to s. Comm 82. All piping between the collectors and the heat exchanger must be copper, stainless steel or black iron and insulated with insulation rated to withstand over 250 degrees Fahrenheit. The balance of system piping may be either copper, stainless steel, black iron or cross-linked polyethylene (Pex) (rated to at least 200 degrees F at 100 pounds per square inch) with insulation rated to withstand 180 degrees F (insulation rated over 200 degrees F is needed for applications sized with a space heating loop, and pex is not recommended). Exterior insulation must be covered with jacketing capable of withstanding moisture, ultraviolet radiation, and environmental exposure. All fittings, valves and gauges must be copper, bronze, stainless steel, black iron or brass. The solar loop must be fitted with the following components: check valve, pressure relief valve, expansion tank and pressure gauge. The solar fluid must be non-toxic, provide a minimum temperature rating of 320 degrees F, and provide "no slush" or "freeze" conditions to -28 degrees F.
  - **Drainback Systems:** Solar system piping shall be in accordance with s. Comm 71 and its references to s. Comm 82. All non-vertical piping must be copper with insulation rated to withstand over 180 degrees F. Vertical piping may be either copper, stainless steel or cross-linked polyethylene (Pex) (rated to at least 200 degrees F at 100 pounds per square inch) with insulation rated to withstand 180 degrees F. Exterior insulation must be covered with jacketing capable of withstanding moisture, ultraviolet radiation and environmental exposure. All piping in the system must have at least a 3/4 inch inside diameter. Sloped piping must be copper, mounted with at least a 1/4 inch drop in slope per foot and supported every 4 feet, unless otherwise specified in a commercial system design. All fittings, valves and gauges must be copper, bronze, stainless steel or brass. The solar fluid must be propylene glycol, provide a minimum temperature rating of 320 degrees F, and provide "no slush" or "freeze" conditions to 9 degrees F. Seasonal, public pool heating systems may be installed with the equipment specified by the manufacturer for temperature and climate anticipated.
- **Collector Mounting:** Collectors must be installed as per manufacturer specifications and applicable building codes for the site.

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- **Balance of System:** A temperature gauge shall be provided to determine the storage tank temperature. There must be a back-up system for heating water. The domestic hot water piping downstream of a tank-type backup water heater must be fitted with a thermostatic mixing valve (TMV) to limit the maximum temperature of the hot water to a set point of 120 degrees F (adjustable). The TMV may be installed before the feed to a backup water heater without storage (per manufacturer's specifications). A heat trap or check valve may be needed to prevent heat loss to the cold water inlet.
- **Performance Testing:** Focus on Energy reserves the right to test a number of systems prior to reward payment. Performance testing will be provided at no cost to the customer and will consist of checking those items set out in the System Requirements. If the system does not pass, the customer and installer will be notified immediately of the deficiencies and given 30 days to correct deficiencies (and still be eligible for the Cash-Back Reward). The second performance test will be at the installation contractor's expense. Eligibility for the reward after 30 days will be at the discretion of Focus on Energy.
- **Two-year Installation Warranty.** The system must include at least a two-year installation warranty that covers any defect in the workmanship of the installation at no charge to the owner.
- **One-year Equipment Warranty.** All major system components must have at least a one-year warranty.

## TERMS AND CONDITIONS

- 1. Eligibility.** Businesses, organizations, institutions, and federal, state, county, local or tribal governments and residents are eligible for Focus on Energy incentives if their renewable energy system will displace electricity and the applicant purchases electricity from an electric provider participating with Focus on Energy, or if their renewable energy system will displace natural gas and the applicant purchases natural gas from a participating natural gas provider. For a list of participating providers visit, [focusonenergy.com/utilities](http://focusonenergy.com/utilities).
- 2. System Location.** The renewable energy system must be installed on a site whose owner purchases electricity from an electric provider participating with Focus on Energy (if the renewable energy system will offset electricity) or purchases natural gas from a participating natural gas provider (if the renewable energy system will offset natural gas) for that site.
- 3. Approval.** An application for a Cash-Back Reward must be approved by Focus on Energy before any equipment is ordered, purchased or installed. Within 30 days after we receive a complete application, you will be mailed a letter notifying you if your application has been approved. Installation prior to Focus on Energy approval may render your project ineligible for funding.
- 4. System Requirements.** The renewable energy system must be designed and installed to meet the "System Requirements" described in this application. The renewable energy system must comply with all applicable federal, state and local codes governing the installation and operation of renewable energy systems. All system components must be new.
- 5. Repairs Are Eligible.** The repair of a non-functioning solar water heating system is eligible for a one-time repair reward. The solar thermal system must be repaired to meet the "System Requirements" and have a two year installation warranty and a one year equipment warranty. Solar thermal systems that malfunctioned due to a lack of maintenance are not eligible.
- 6. One-Year Project Deadline.** The renewable energy system must be installed and the Notice of Installation submitted within one year. Projects that take more than six months to complete must submit a progress report after six months noting substantial progress toward installation, including copies of receipts for equipment or a signed installation contract. If the installation does not meet the one year timeline Focus on Energy may terminate your reward. You will receive a written warning 30 days before your reward is canceled. Requests for extensions beyond the twelve-month period must be submitted in writing to Focus on Energy at the address noted on the bottom of the page.
- 7. Notice of Installation.** The Cash-Back Reward will be paid after the system has been installed and a complete Notice of Installation has been submitted. Dated invoices or receipts for all projects must be submitted with the Notice of Installation. Only costs directly linked to the renewable energy system are eligible. The Cash-Back Reward will be paid within 60 days of receipt and acceptance of the completed Notice of Installation.
- 8. System Operation.** The Cash-Back Reward recipient agrees to operate the renewable energy equipment, at the location proposed and as described in the grant application, for a period of at least three (3) years.
- 9. Additional Terms.** Focus on Energy reserves the right to:
  - a. Withhold payment until any identified problems with the renewable energy system are resolved
  - b. Terminate this reward in whole or in part due to the recipient's failure to fulfill the terms and conditions in this document, or due to non-appropriation of necessary funds
  - c. Alter or discontinue the Cash-Back Reward program offer at any time without notice
  - d. Make the final determination on whether items meet the standards set forth in the program
  - e. Inspect the system to ensure that it is consistent with all "Terms and Conditions"
  - f. Monitor or evaluate the performance of the system for a period of two (2) years
- 10. Privacy.** Focus on Energy reserves the right to publicize your participation in this program, unless you specifically request otherwise.
- 11. Disclaimer.** Acceptance of this Cash-Back Reward does not constitute the approval, acceptance, warranty, guarantee or endorsement of Focus on Energy or Wisconsin Energy Conservation Corporation.

**Please Note: This completed form must be submitted and approved by Focus on Energy before any equipment is ordered, purchased or installed.**

## OWNER/CONTACT SIGNATURE

I certify that I have performed or reviewed this application and any accompanying documentation, and the information is reasonable and accurate. I further certify the unit(s) is to be installed at the indicated installation address. I have read the terms and conditions associated with this program.

Owner/Contact Signature

Date

- Periodically, Focus on Energy evaluates program efficacy by monitoring energy use / production prior to and after installation of renewable energy system(s). Your signature provides Focus on Energy approval to obtain energy data directly from your electric and/or natural gas provider(s). If you prefer not to grant Focus on Energy access to your electric / natural gas records, please check the "Opt Out" box.  Opt Out
- Focus on Energy representatives promote the program and renewable energy in Wisconsin through the use of photos, project descriptions and general project locations during public presentations and verbal or written conversations with interested parties. Your signature provides Focus on Energy approval to use photos, provide a general description and reference the general location of your project for the purposes described above. If you prefer not to grant Focus on Energy the right to use your project information as described above without first obtaining your consent, please check the "Consent Required" box.  Consent Required

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