

Solar Water Heating System Loan Program Application

Steps to Apply for a Loan for a Solar Water Heating System:

1. Get a bid for equipment and installation from an installation contractor. If you have not already chosen an installation contractor, you can contact the Kentucky Solar Partnership at (888)576-6527 or solar@kysolar.org for assistance. Ask the installation contractor to conduct a solar site assessment and complete the *Solar Site Assessment Form* that accompanies this application.
2. Make sure the installation contractor designs and prices the system according to the system requirements specified in this application.
3. Complete and mail this application, along with the Solar Site Assessment Form and a copy of the bid from the installation contractor, to the address below.
4. **Do not purchase, order, or install any equipment until you have been notified that your application has been approved for a loan!**
5. Within 14 days after we receive a complete application, we will notify you if your loan has been approved. After we receive your down-payment of 5%, we will send a check for 50% of the bid price to the installation contractor. We will send you an *Installation Checklist* that you will need to fill out and return after your system has been installed.
6. Install the system (you have 120 days to install the system and submit the Installation Checklist to the Kentucky Solar Partnership).
7. Submit the Installation Checklist (along with a copy of all bills from the installer and equipment warranties) to the address below. We will send a check for the remaining 50% to the installation contractor after receiving these documents.

Kentucky Solar Partnership
ATTN: SWH Loan Program
2235 Gregory Woods Rd.
Frankfort, KY 40601

Questions regarding this application should be directed to the Kentucky Solar Partnership at (888)576-6527.

APPLICANT INFORMATION					
Name			Social Security Number		
Mailing address		City	State	Zip	County
Daytime phone	Fax number (optional)		Email (optional)		
Employer	Annual salary		Years employed with this employer		
Personal credit self-assessment __poor __fair __good __very good __excellent					
Name of electric utility			Name of space heating fuel supplier		
Address of solar installation site		City	State	Zip	County
Does applicant live at installation site?	Size of home (square feet)		Number of residents in household		

Name of electric utility at installation address	Name of heating fuel supplier at installation address
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"/> Wood <input type="checkbox"/> Other _____	
Current water heating fuel type of non-solar system <input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane(LP) <input type="checkbox"/> Oil <input type="checkbox"/> Electric <input type="checkbox"/> Wood <input type="checkbox"/> Other _____	
Have you enclosed a copy of the bid showing the items to be installed? Yes___ No___ Have you enclosed a copy of the Solar Site Assessment Form, signed by the installation contractor? Yes___ No___	

INSTALLATION CONTRACTOR INFORMATION				
Company Installing the system	Company phone number		Company fax number	
Mailing Address	City	State	Zip	County
Contact person	Email			

EQUIPMENT INFORMATION		
Cost of Solar Water Heating System – Attach bid		
Manufacturer of solar collectors	Model number	SRCC Certification Number
Estimated installation date	Estimated installed price	
Design Details		
Collector type <input type="checkbox"/> Flat plate <input type="checkbox"/> Evacuated tube	Collector size (square feet for flat plate collectors, linear feet for evacuated tube collectors)	
Collector compass direction	Tilt angle (in degrees or rise/run)	Number of occupants in home
System type <input type="checkbox"/> Closed loop antifreeze <input type="checkbox"/> Drainback w/ antifreeze <input type="checkbox"/> Drainback w/ water	Size of hot water storage tank(s) (gallons)	

PROJECT INFORMATION – To be completed by Kentucky Solar Partnership staff only			
Project number	Application received by		Date received
Loan approved <input type="checkbox"/> Yes <input type="checkbox"/> No	Loan amount approved	Loan approved by	Date approved
Customer notified via <input type="checkbox"/> Mail <input type="checkbox"/> Fax <input type="checkbox"/> Email <input type="checkbox"/> Phone	Customer notified by		Date customer notified
Date first installment paid to installer	Amount of first installment		
Date Installation Certification received	Date second installment paid to installer	Amount of second installment	

Instructions:

All of the required information requested on the loan application must be provided.

Estimated installation date: Enter the date you anticipate the system will be installed.

Estimated installed price: Enter your anticipated total cost of the system, including all equipment and labor.

Collector compass direction (in degrees): Enter the compass direction the collector will face, indicating number of degrees east or west of true south (i.e. S 10° W)

Tilt angle (in degrees): Enter the number of degrees the collector surface will be from horizontal or, if the roof pitch is known and the collector tilt will match the roof, you may enter rise/run.

System Requirements:

Collectors: Collectors must be rated by the Solar Rating and Certification Corporation (SRCC) or industry equivalent.

Flat plate collectors must have tempered glass glazing. Used collectors must have at least a one-year warranty.

System: Must be a closed loop antifreeze system, or a drainback system utilizing antifreeze or water.

Siting: Collectors should ideally be mounted to face within 45 degrees east or west of true south. If a different collector orientation is planned, provide a written statement explaining why and how this will meet solar heating expectations. Collectors must be mounted at an angle between 20 and 60 degrees from horizontal. Collectors must be located so that there is no shading of the collectors between 10AM and 2PM during any part of the year.

Plumbing: All piping in the solar loop must be copper with copper or brass fittings. All piping must be insulated with insulation rated to withstand over 250 degrees and capable of withstanding moisture, ultraviolet radiation, and environmental exposure. All piping must be supported every 6 feet. For closed loop, glycol systems only, a back check valve must be installed between the boiler drains. Temperature gauges must be installed in the solar collector loop, before and after the heat exchanger and at the outlet of the storage tank. Connections to a collector, and between collectors must have a union. Drainback systems must have a minimum fall of 1/4-inch per 4 feet in supply/return piping and the collectors, sloping back to the drainback reservoir.

Collector Mounting: Collectors must be securely fastened to their mounting structure (roof or rack). If a tilt rack raises the top of the collectors above the roof, the mounting hardware must be bolted to reinforced framing members in the roof or rafter where the bolt has a minimum of 3 inches grab (if reinforcing framing is less than 3 inches, bolts must have nut and washer). If it is not possible to reinforce the roofing system, a rail may be added to the top of the roof, the rail lag-bolted to the roof rafters, and the collectors bolted to the rail.

Balance of System: There must be a back-up system for heating water. Product literature, system description, and maintenance instructions must be provided to the customer. Storage capacity must be a minimum of 1.5 gallons per square foot of collector area for flat plate collectors, or a minimum of 0.4 gallons per lineal foot for evacuated tube collectors. For closed circulation loops, the collectors must be fitted with the following components: pressure relief valve, expansion tank, and pressure gauge. The solar fluid for closed loop systems must be propylene glycol and provide burst protection to at least -20 degrees Fahrenheit. The closed solar loop must be pressurized to at least 25 pounds per square inch.

Performance Testing: The Kentucky Solar Partnership reserves the right to test a number of systems. The system must be tested between 10AM and 2PM on a mostly sunny day. The temperature of closed circulation loop serving the collectors shall be measured at inlet and outlet of the heat exchanger to confirm that there is a temperature drop (heat delivered to storage).

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.

Performance Testing Procedure:

A certain number of systems will be chosen by the Kentucky Solar Partnership for inspection. If your system is selected for inspection, the performance test will be provided at no cost to the customer. Performance testing will consist of checking those items set out in the systems requirements. If the system does not pass, the customer and installer will be notified immediately of the deficiencies and given 30 days to correct them (and still be eligible for the loan). The final payment to the installer will be made after all deficiencies have been corrected and verified by a second inspection. The second performance test will be at the installation contractor's expense. Eligibility for the loan after 30 days will be at the discretion of the Kentucky Solar Partnership.

Terms and Conditions:

1. **Eligibility.** Eligible customers for a loan must be located in the 51 Appalachian counties of Eastern Kentucky.
2. **Location of System.** The renewable energy system must be installed on the property of an eligible customer.
3. **Approval.** An application for a loan must be approved by the Kentucky Solar Partnership before any equipment is ordered, purchased, or installed. Within 14 days after we receive a complete application, we will send you a letter notifying you if your application has been approved.
4. **Amount and terms of the loan.** Loans are fixed at six years, with a 6.0% interest rate. They may cover 100% of the equipment and labor costs for solar hot water systems. Approved loans require a 5% down payment. Typical residential solar water heating systems cost from \$2,500 to \$3,500, depending on a variety of factors.
5. **Loan repayment.** Loans are serviced by the Mountain Association for Community Economic Development (MACED). All loan payments must be made through MACED via automatic checking withdrawal.
6. **Site assessment reimbursements.** Up to \$50 may be included in the loan request to compensate the installation contractor for the solar site assessment. If the loan is approved, this amount will be included in the loan. If the loan is declined, the Kentucky Solar Partnership will reimburse the applicant for the cost of the assessment, up to \$50.
7. **System Requirements.** The solar hot water system must be designed and installed to meet the "System Requirements" described in this application. The solar hot water system must comply with all applicable federal, state, and local codes governing the installation and operation of renewable energy systems.
8. **Expansion of Existing System.** Expansions of existing solar domestic hot water systems are eligible, provided the expansion results in the production of additional energy savings.
9. **Repairs Are Eligible.** Repairs that make a system operational are eligible for a loan. General maintenance or the replacement of functioning components are not eligible.
10. **Owner-installed systems.** Loans are available for owner-installed systems. Applicants must demonstrate that they have attended a solar water heater installation workshop or have the necessary skills to complete the project, and must meet all the terms and conditions of this application.
11. **Project Deadline.** The solar water heating system must be installed within 120 days from the date the loan application is approved. Projects that take more than 120 days to complete must submit a new loan application and are subject to available funding.
12. **Project Completion.** The second and final installment of the loan will be paid after the system has been installed and the Kentucky Solar Partnership has received:
 - a. Copies of all bills from the installation contractor (or subcontractors, if any);
 - b. Copy of the Installation Checklist signed by the applicant and the installation contractor;
 - c. Copies of warranties for new and used equipment, major system components and system installation;
 The final loan installment will be paid to the installation contractor within 30 days of receipt and acceptance of these documents.
13. **Additional Terms.** The Kentucky Solar Partnership reserves the right to:
 - a. Withhold payment until any identified problems with the solar domestic hot water system are resolved;
 - b. Terminate this loan in whole or in part due to the applicant's failure to fulfill the terms and conditions in this document;
 - c. Alter or discontinue the loan 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 program guidelines.
14. **Privacy.** Your name may be used in various communications to the media. A representative of the Kentucky Solar Partnership will contact you for your permission before we use your name in any media communications.
15. **Disclaimer.** Acceptance of this loan does not constitute the approval, acceptance, warranty, guarantee, or endorsement of the Kentucky Solar Partnership, Appalachia – Science in the Public Interest, or the Mountain Association for Community Economic Development.

Signature	
This completed form must be submitted to and approved by the Kentucky Solar Partnership before any equipment is ordered, purchased or installed. I certify that I have performed or reviewed this analysis and any accompanying documentation, and the information is reasonable and accurate. I further certify the solar water heating unit(s) are to be installed at the address indicated above. I have read the terms and conditions associated with this program. I am providing the requested information solely to be eligible to participate in this program and request that the personal information supplied by me be treated as confidential to the maximum extent possible.	
Applicant Signature:	Date: