

Certified Program:



Training managed by:



Class VI: New Solar Homes Partnership (NSHP) Photovoltaic/Solar

Class Code: 150514PN

Location: The Building Performance Center
1301 Bidwell Street, Folsom, CA 95630

Date/Times: Thursday, May 14th, 2015
8:00 am-5:00 pm (*lunch provided*)

Cost: \$325 per person*

You can sign up for the class on-line and pay via credit card at:
www.calcerts.com or call 916.985.3400 x 2013

***Prices subject to change without notice**

The California Energy Commission's **New Solar Homes Partnership** (NSHP) is part of the comprehensive statewide solar program, known as the California Solar Initiative. The NSHP provides financial incentives and other support to home builders, encouraging the construction of new, energy efficient solar homes that save homeowners money on their electric bills and protect the environment.

Target Market for this Course:

This training is intended to train and certify people interested in performing HERS field verification and Diagnostic testing for third party inspection of Photovoltaic/Solar systems for NSHP (New Solar Homes Partnership) and is required for Whole House Home Energy Rater activities.

If you are a PV system installer, you may NOT certify your own company's installations. You may take this class without taking prerequisite classes, but you will not be certified to test the work of other PV installers.

Incoming Skills Necessary:

To better prepare candidates for work in the HERS industry as a solar system verifier we strongly suggest that they possess some knowledge, skills, and abilities in the California HERS Program (HERS Basics), the construction industry, and some basic solar system knowledge. An understanding of the FV/DT skills as a HERS Compliance Rater is also expected.

Additionally, in the course of your rater work you may also be required to have the following knowledge, skills, and abilities required which are not taught in any CalCERTS trainings:

- High School diploma or GED
- 10th Grade English & Math minimal (especially fractions, percentages, geometry)
- Computer literacy
- Firm grasp of the English language (most codes and regulations are only in English)
- Ability to lift heavy objects (50 lbs. or more)

- Ability to inspect dark, tight, spaces
- Ability to read and understand levels and angle finders
- Ability to comprehend and understand compass readings, both true and magnetic

Learning Objectives:

Class VI: Photovoltaic/Solar is a 1-day class taught by a qualified CalCERTS, Inc. instructor. This course is intended to train and provide a credential to people interested in performing HERS field verification and diagnostic testing for third party inspections of Photovoltaic/Solar systems for NSHP (New Solar Homes Partnership) and for Whole House Home Energy Rater.

It is **NOT** a solar PV installation course.

Prerequisites (for achieving a HERS Rater credential for Solar System evaluations and/or HERS Whole House Home Energy Rater):

****You must first be a CalCERTS certified Newly Constructed Homes Rater****

Topics Covered in This Class:

- Verifying solar panel installations, counting modules
- Performance testing using a pyranometer and other equipment
- Verifying the tilt and azimuth of solar arrays
- Reading & verifying kW output on different PV inverters
- Minimal shading verifications

Some of the state mandated HERS tests/inspections are not covered in this class if they are specific to a certain credential (e.g., the identification of ice storage air conditioners is only required for Newly Constructed Buildings inspections). These topics are covered in the appropriate class.

Standards of Candidate Evaluation (for individual certificate issuance):

At the end of Class VI: Photovoltaic/Solar training day, all participants will take an open-book, multiple-choice written exam based upon; all the written materials provided to the Candidate, the presentations in class, and the verbal education by the Trainer(s) within the classroom and the lab (if applicable).

CalCERTS HERS Rater Written Exam Policies

These rules are intended to ensure fairness, accuracy, consistency and validity of exam results. Failure to abide by these rules could result in ejection, or other disciplinary action.

1. At the beginning of each exam, the proctor will announce the time allowed for the exam. The time allowed is based on the number of questions on the exam.
2. The written exam must be taken on the day of instruction (or on the last day of a multiple day delivery), no exceptions.
3. A Scantron form, exam packet and #2 pencil will be provided to the candidate.
4. Fill in (shade) your answers firmly and neatly on the Scantron form. Completely erase any changed answers with a soft eraser. Do NOT staple, fold, tear or crumple the form. Do NOT draw or write on the bar code black lines on the left hand side of the exam. Do NOT write on or in the exam packet.
5. Print your first and last name where indicated on the Scantron form.
6. Print exam version (located on front page of exam packet) in the area above your name.
7. Print the name of the class (i.e. Class I, Class II, etc.) on the "subject" line of Scantron form.
8. Print the date you are taking the exam where indicated on the Scantron form.
9. A score of 80% is required to pass the CalCERTS written exam. Candidates will not be informed which questions they have missed. They will only be informed of their score and whether they passed or failed.

10. Candidates must be prepared to show a valid Photo ID.
11. No cell phones may be used during the exam. Calculators will be provided.
12. No laptop computers may be used during the written exam.
13. The CalCERTS training manuals are the only written materials that may be referenced during the written exam. No other books or notes may be used. The answer to every question may be found or deduced from information in the training manuals. No other materials are needed to pass the exam.
14. Candidates may leave the room during the exam, but must hand over exam packet to Proctor until their return. No time will be added to time allotment for exiting exam.
15. Candidates may NOT write in training manual or exam booklet during exam. Scratch paper will be provided.
16. This is a professional level exam. **THERE IS NO TALKING OR COMMUNICATING ALLOWED DURING THE EXAM.** You must demonstrate your knowledge of the subject matter without assistance. You may NOT assist others during the exam.
17. There are multiple versions of each exam. They are similar to each other in terms of the topics covered and types of questions. Candidates will take a different version than those sitting to either side of them.
18. ALL exam packets must be turned in to the Proctor at the end of the exam.

Written Exam Re-test Policies

1. Candidates will be given one re-test opportunity to pass each written exam (the initial attempt plus one re-test attempt).
2. Candidates must wait at least 48 hours to re-take any exam.
3. There will be an additional \$75.00 charge for a re-test attempt.
4. All of the above exam policies apply to a re-test as well (except item #2 above)
5. Candidates who do not pass an exam on their second attempt must retake the entire class, at full retail price, and pass the written exam if they wish to continue their pursuit of certification.
6. If a candidate does not pass the written exam after retaking the course, they will be excluded from becoming a CalCERTS HERS Rater for that classification indefinitely (i.e. New Construction Rater).

Materials utilized in this Course:

Each participant will be given a training manual with all the applicable written course materials as described in the Course Outline above.

Any required diagnostic testing equipment and associated sundries will be provided by CalCERTS, Inc. Candidates are welcome to bring their own equipment if they'd like (may not be appropriate for all classes).

Candidates shall bring to class a pencil or pen, a calculator, and notepad.

For questions about any of our trainings call 916-985-3400 or e-mail training@calcerts.com. *If you require any special assistance or accommodation during training or testing, please contact 916-985-3400x301 or email training@calcerts.com.*

***Please Note:**

*There is an annual \$120.00 subscription fee due if you choose to become a CalCERTS California HERS Field Verification & Diagnostic Testing Rater. This fee covers your CalCERTS HERS membership and the administrative duties on our part to maintain your records.

*Project uploads for compliance verifications, whole-house ratings, and/or Energy Star certifications are also subject to additional fees.

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