

Tax-Credit Certified Technician Solar Test Topics

The purpose of this test is to determine if you have a minimum understanding of solar thermal energy systems, and what constitutes good design, performance and quality. These questions do not constitute in any way the breadth of knowledge needed for system design and installation.

For certification you must get at least 70 points. The test and is “closed book”. All necessary information is provided in each question. You will need a calculator. Some questions require you to show your work. Some questions are eligible for partial credit.

The following list describes concepts that may be covered in each test areas.

Solar Thermal Technology

- Ability to draw a single line diagram of common system types
- Understanding of what SRCC is and does
- Thermosyphoning losses on storage tanks
- Impact of hot water use on system performance
- Sizing a system
- Collector stagnation issues
- Determining wind loading and pullout strength of roof mounted collectors
- Freeze protection strategies
- The Brightway to Heat Water™ technical specifications
- Isolation plumbing
- Estimating system efficiency
- Energy Trust program requirements for roof life
- Understanding of The Brightway to Heat Water™ technical specifications
- Use of Cross-linked polyethylene pipe
- Appropriate pipe insulation ratings
- Understand Drainback system configuration operation and performance
- Understand Glycol system configuration operation and performance
- Understand Thermosyphon system configuration and operation

Sun Chart

- Ability to draw a sun chart
- Understanding of the impact of tilt and orientation
- Ability to calculate a site’s total solar resource fraction
- Reading a compass

Tax Credit Rules

- Purpose of tax-credit technician certification
- How to maintain status

- Who can legally install systems (licensure)
- How to determine tax credit amount
- Warranty requirements
- Required system documentation