

Solar Site Analysis eLearning | Siting a Solar Array Training

Site Planning - WX20017-XA01XEN-E1

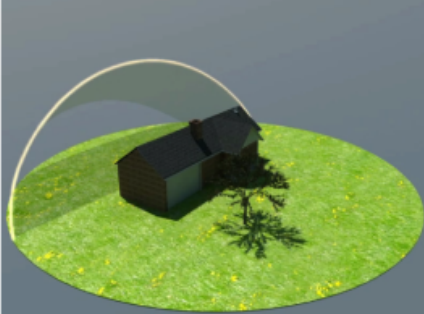
Objective 5: Describe How to Analyze Potential Array Locations

Potential Array Locations

Determine the Sun Path and the Solar Window

Finding the best location for a solar array involves finding a site that receives the most sunlight. The size of the solar array and the orientation of the array are also important. In addition, the efficiency of the array must be taken into account. The location of existing structures and other system components should be considered. A system developer should evaluate the pros and cons of a site before installation. The following steps are used to determine the best location for a solar array:


- ✓ Evaluate Potential Locations
- Determine the Sun Path and the Solar Window
- Measure Local Conditions
- Identify Any Obstructions



The sun's path is the apparent path the sun follows across the sky over the course of a day. For a given location, this path changes over the course of a year, cycling between the highest path and the lowest path. For example, when the sun's path is high in the summer, nearby trees may not cast a shadow on the proposed location, but the lower path during the winter months could result in shading problems.

The solar window is the area of the sky between the sun's highest path, occurring on the summer solstice, and its lowest path, occurring on the winter solstice. Knowing the solar window is important for choosing a location that receives the most sunlight in both the summer and winter months. Neglecting some of the solar window results in inefficient performance for at least part of the year.

When looking at possible locations to place the array, keep in mind the solar window for the area. Try to avoid areas where obstructions block the sun within the solar window.



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eLearning Course: M20017

Amatrol's Solar Site Analysis eLearning course provides detailed information on properly siting a solar array. The in-depth, interactive curriculum covers real-world topics learners will experience in the field, including site assessment, the permit process, array site evaluation, component location on the site, and overall site layout.

Teach Alternative Energy

What are the Steps for a Preliminary Site Assessment?

A preliminary site assessment is the process of examining a proposed location for a solar energy system (solar thermal or PV) for feasibility and cost. During this assessment, the system designer, installer, and customer discuss possible locations for the solar energy system equipment, taking into account access to sunlight, climate, building codes, budget, and other details. A preliminary site assessment helps avoid potential problems in design and installation.

There are five steps to perform a preliminary site assessment:

1. Determine Customer Needs
2. Determine Access to the Sun
3. Evaluate Environmental Conditions
4. Determine Local Codes
5. Interconnection Agreement

Interactive eLearning

Solar Site Analysis eLearning Features Engaging Multimedia

Amatrol's extensive, thorough [multimedia](#) covers green energy themes such as solar site analysis. Interactive screens paired with instructive graphics teach an array of solar site analysis topics from site assessment and permitting to site layout. With the optional hardware, learners can then apply this theoretical knowledge to immediate hands-on skills. For example, learners study the guidelines for component locations and then on their own identify suitable locations for solar thermal components for applied practice. This combination of theory and practice ingrains concepts in a learner's mind and makes more advanced topics easier to comprehend. (References [95-SA1](#))

Additional Info

Requirements:

- Computer (See [Computer Requirements](#))

Referenced Equipment:

- Solar Site Analysis Learning System ([95-SA1](#))
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