

PV Racking Systems Syllabus

Time: 24 hours

Maximum Class Size: 8

Prerequisites: None

Course Description: This course is designed to instruct the participant in the installation of the ISYS 2.0 Ground Mount System. The history of solar and ways in which solar energy can be used is presented as well as examples of projects currently using this technology. The participant will gain an in-depth knowledge of the components of the system. Environmental hazards, clearing, grading using an Engineer's ruler and level, layout and plan reading are also covered. The participant will receive ample practice in assembling and disassembling the system.

Goals/Objectives/Student Learning Outcomes:

- Briefly describe the history of solar energy
- Explain the different ways solar energy can be used
- Identify two current projects utilizing this technology
- Identify possible environmental hazards
- Identify all required PPE
- Demonstrate the use of the engineer's ruler
- Demonstrate the use of a laser
- Identify all components of the system
- Correctly lay-out upright beams
- Set-up ISYS ground mount
- Place individual modules on rails
- Place grouped modules on ISYS
- Disassemble system

Standards

OSHA 29 CFR:

- Subpart C: 1926.20-3 & 25 General Safety and Health Provisions
- Subpart D: 1926.50-1 Occupational Health & Environmental Control
- Subpart E: 1926. 95 & 100 Personal Protective Equipment
- Subpart H: 1926.254 Materials Handling

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- Subpart N: 1926.550 Cranes
- Subpart K: 1926.416-7 Electrical
- Subpart K: 1926.404(b)(4) Electrical

Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

Textbooks/Readings/Materials

- LIUNA Subpart K: Electrical IG/PG
- LIUNA Subparts H &N: Materials Handling and Cranes IG/PG
- The History of Solar packet
- Environmental Hazards packet
- Reading a Ruler Worksheets (2)
- Working Safely with Photovoltaic Systems packet (Daystar, Inc.)
- 3 sets of site plans
- Unirac Instructions for Users Guide

Tools/Equipment/Other Materials

- Components required to installation of ISYS 2.0 Ground Mount System

Personal Protective Equipment

- 12 pairs of gloves
- 12 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 12 hard hats

Course Requirements

To receive credit for the course, participants must:

- Be present for full 24- hours

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- Participate in all classroom exercises
- Pass a written exam
- Pass a hands-on exam

Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on “light duty” are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety

Failure to maintain and use PPE may result in dismissal from the course.