

Solar Photovoltaic Installation and Maintenance Training for Construction Electricians

Topic:

Solar Photovoltaic Installation and Maintenance Training for Construction Electricians
This course briefing pertains to the Introductory course, Advanced will be developed following the launch of Introduction.

Background:

The Construction Electrician (NOC 7241) Solar Photovoltaic (PV) Systems Certified (PVSC) Personnel Certification has been developed by CSA Group in conjunction with the National Electrical Trade Council (NETCO) and industry stakeholders to provide assurance that an individual possesses the competencies deemed necessary to perform the job function of a Solar Photovoltaic Systems Certified electrician.

This certification has been developed in compliance with the ISO 17024 standard. ISO 17024 is the global benchmark for organizations operating personnel certification programs and outlines the methods and procedures required to ensure the objective and unbiased assessment of a candidate's knowledge, skills, and abilities. Passing the PVSC examination will indicate that the candidate possesses the knowledge, skills, and decision-making abilities necessary to practice the proper techniques to pre-plan, implement, configure, install, commission, troubleshoot and maintain solar PV systems.

Course Curriculum:

Day 1 – Photovoltaic Theory

- Part 1 – Intro to PV Theory
- Part 2 – The Photovoltaic Effect
- Part 3 – Types of PV Systems
- Part 4 – Site Surveys

Day 2 – Solar Photovoltaic Pre-Installation On-Site Review (Grid Interactive)

- Part 1 – Voltage Drop
- Part 2 – Sizing a Grid Interactive System
- Part 3 – Permits, Interconnection, Commissioning and Troubleshooting

Day 3 - Solar Photovoltaic Pre-Installation On-Site Review (Stand Alone)

- Part 1 – Battery Theory
- Part 2 – Choosing and Sizing a Battery

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- Part 3 – Charge Controllers
- Part 4 – Sizing a Standalone System
- Day 4 – Solar Photovoltaic Systems Safety
 - Part 1 – Special Code Terminology
 - Part 2 – General Code Requirements
 - Part 3 – Inverters and the Code
 - Part 4 – Solar Photovoltaic Systems
 - Part 5 – Storage Batteries
 - Part 6 – Interconnection of Electrical Power Sources
- Day 5 – Solar Photovoltaic Systems Installation
 - Part 1 – Practical

Seating Distribution Report:

Year two of Introduction to Solar PV will provide 12 seats, with the following three years providing 24 per year until the project's completion. This course will provide a total of 84 seats. Advanced Solar PV will present the same tuition and seating distribution totals.