



## 201 Solar PV Fundamentals (full day)

This course is an introduction to the fundamentals of solar electric power generation. Topics covered will be helpful to anyone considering:

- Looking for a job in solar industry
- A career change
- Starting a solar business
- Purchasing or implementing a Solar PV system for Home or Business

Prerequisite: None

By the end of this course attendees will:

- Know the fundamentals of electricity
- Understand the Process of Harnessing Solar Energy
- Be able to identify the components and architecture of a Solar PV system
- Have a working model for Solar Electric Projects: from Planning to Power Generation

### Course outline:

#### 1. Introduction

- Review the Outline for the Day
- Profile: Instructor, Company, Attendees
- Brief Glimpse at the Industry
- Benefits of PV
- History of innovation
- Terminology, Watts
- Need for Qualified Installers

#### 2. Basics of Electricity

- AC vs. DC
- Natural vs. Mechanical
- History of Innovation
- OHM's Law
- Parallel and Series

#### 3. Harnessing Solar Energy

- Sun Tracking
- Solar Collecting Cells
- Holes
- Efficiencies
- The Grid
- Net Metering
- Solar Architecture

#### 4. Components of a PV System

- Mounting Types
- Modules
- Inverters
- Charge Controllers
- Wiring
- Batteries
- Meter

#### 5. Solar Electric Project Considerations/Planning

- Site Plan
- Utility Integration
- Codes
- Contracting: Insurance Certificate
- Installation, inspection, commissioning
- Maintenance Plan

#### 6. Resources

- For Consumer
- For Contractors
- Additional Training Course Information

Course Review Survey

For fees and registration contact us at:

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