



**FLUKE®**

## **Solar – Utility Scale**

Solar energy is becoming one of the world's fastest-growing sources of power—making the first time that solar energy's growth has surpassed that of all other fuels. Solar technology is improving, and the cost of going solar is dropping rapidly. Solar technicians and managers need to be able to install and service equipment quickly, safely and efficiently.

Fluke tools perform like champions in the most challenging utility-scale solar environments. You can depend on Fluke tools to keep your world up and running.

## Solar Technician/Installer

### Focus:

- Mechanical and electrical design
- Conduct commissioning
- Troubleshooting

### Job needs:

- ▲ Irradiance meter
- Digital multimeter
- Clamp meter
- Temperature/Thermal
- Insulation and power quality
- Insulated hand tools
- ▼ Earth ground

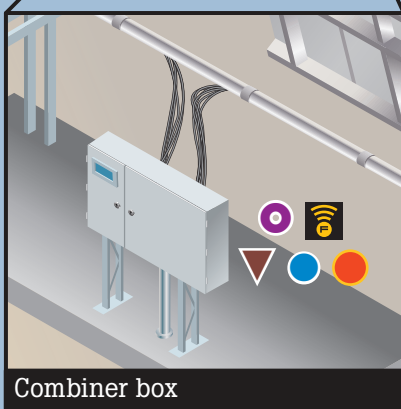
## PV Designer/Electrician

### Focus:

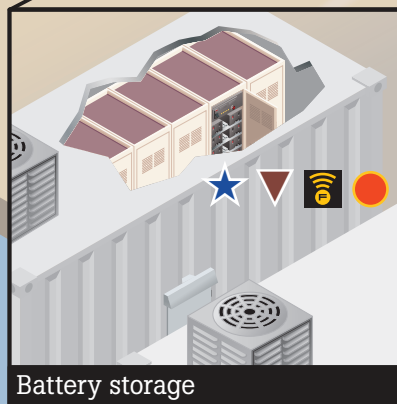
- Conduct commissioning
- Preventative maintenance
- Troubleshooting

### Job needs:

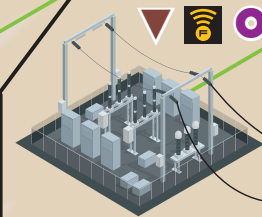
- ▲ Irradiance meter
- Digital multimeter
- Clamp meter
- Temperature/Thermal
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- Insulated hand tools
- ▼ Earth ground





Combiner box



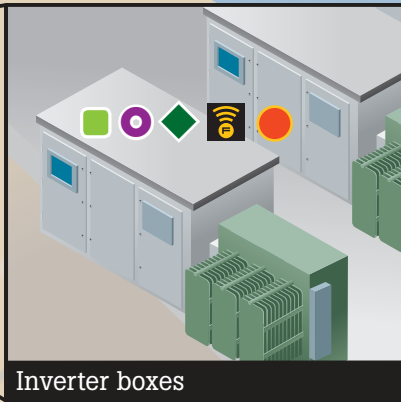
Battery storage



## Solar energy solutions

Amprobe	Electrical Measurement Tools					Insulation and Power Quality		
Irradiance meter	Digital multimeter	Digital multimeter	Thermal multimeter	Clamp meter	FC wireless multimeter kit	Insulation tester	Insulation tester	Insulation tester
								
Solar 100	87V	179	279 FC	376 FC	v3003FC Kit	1507	1587 FC	1555 FC





Inverter boxes

### Solar Advisor

**Focus:**

- Mechanical and electric design
- Troubleshooting

**Job needs:**

- ▲ Irradiance meter
- Digital multimeter
- Clamp meter
- Temperature/Thermal

### Operations and Maintenance Manager



**Focus:**

- Lead preventative maintenance
- Troubleshooting
- Monitoring

**Job needs:**

- ▲ Irradiance meter
- Digital multimeter
- Clamp meter
- Temperature/Thermal
- Insulation and power quality
- ★ Battery analyzer
- Insulated hand tools

Learn how Fluke solutions can save you time and money while increasing your productivity at [www.fluke.com](http://www.fluke.com).

	Temperature		Battery Analyzer	Earth Ground	Software	Accessories	
Power quality analyzer	Thermal imager	Temperature	Battery analyzer	Earth ground	Fluke Connect™	Insulated hand tools	Backpack
							
435 II	Ti480 PRO	64 MAX	BT521	1625-2			Pack30

# Recommended solar energy solutions

## Fluke Connect

**Best suited for:**

- Simplifying preventive maintenance programs
- Seamlessly integrating tool data into software
- Diagnosing asset health in the field
- Cloud-based data sharing



## Clamp meters

**Best suited for:**

- Verifying the presence of AC/DC load current, voltage and continuity
- Measuring 1000 A AC/DC (2500 A AC with iFlex) in combiner boxes, inverters, breakers or disconnects
- Measuring loads and line frequency in circuits



## Power quality analyzers

**Best suited for:**

- Troubleshooting and preventing problems in power generation, transmission and distribution systems
- Conducting load studies to reduce energy usage



## Digital multimeters

**Best suited for:**

- Combiner box and inverter installation and troubleshooting
- Quick voltage detection
- Environments with both AC and DC or ghost voltages



## Earth ground

**Best suited for:**

- Confirmation that the earth resistance meets safety compliance
- Validation that the grounding system has not deteriorated



## Thermal imagers

**Best suited for:**

- Inspection of PV modules for troubleshooting polarity, electrical panels, and breaker panels for detection of "hot spots"
- Monitoring cooling fluid levels such as dielectric oils for transformers



## Insulated hand tools

**Best suited for:**

- 1000 V AC and 1500 V DC
- Critical part of NFPA 70E



## Amprobe, a Fluke company - Irradiance meter

**Best suited for:**

- Optimize the placement of solar power systems and verify window efficiency
- Measure solar output used to calculate overall energy, efficiency and placement of solar systems



## Battery analyzers

**Best suited for:**

- Troubleshooting and performance testing on stationary batteries and battery banks
- Designed for measurement on stationary batteries of all types



Fluke. Keeping your world up and running®

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