



# Meteorological Station™

## Business Value

- Model performance of a potential solar or wind generation site;
- Establish baseline to calculate performance efficiency;
- Key data required to forecast power production for an active power generation site.

## Predicting Renewable Power Generation

Meteorological data is required to forecast generation and measure the performance of solar and wind power resources.

Trimark provides complete MET station systems including instruments, data loggers, integration, and installation.

### Why MET Data?

MET data is used to:

- Model potential wind and solar power generation at a location;
- Establish a baseline to calculate performance efficiency;
- Forecast power production for an active power generation site.

### MET Station Creation

Trimark delivers turnkey, utility-scale MET stations to meet ISO and utility requirements. Our experts design, procure, assemble, install and commission fully-compliant solutions.

Each MET station includes instruments, data storage and communication equipment required to gather, store and report data. Trimark specifies industry standard, meteorological instruments including:

- EKO irradiance sensors;

- LUFFT all-in-one devices; and
- Back panel temperature sensors.

CAISO requires one MET station for 1MW solar sites and two MET stations for sites of 5MW or more. The MET station approval process requires identification of the MET station locations, pretesting and point-to-point testing prior to commissioning.



*The LUFFT all-in-one meteorological station provides all required measurements. It uses ultrasonic wind sensors to eliminate moving parts, resulting in a highly-reliable device.*

## MET Station Features

- Engineering services to guide system design and documentation
- System assembly and bench testing
- Field installation and commissioning
- Integration with T1-S Gateway RIG
- MET data presentation through a browser-based interface
- Maintenance and service agreements
- Standard measures:
  - Wind speed and direction
  - Ambient air temperature
  - Barometric pressure
  - Back panel temp
  - Plane-of-array Irradiance
- Additional measures:
  - Humidity
  - Precipitation
  - Global horizontal irradiance
  - Shadowband irradiance

## Build a MET Solution for Your Specific Needs

### Back-up Power

CAISO requires that MET stations capture data even if primary power is lost. Trimark systems can include built-in UPS/Battery systems and/or PV recharge system to ensure continuous power supply.

### Wireless Connectivity

Adding wireless access and services to the MET station enables connectivity in remote locations.

Trimark has designed MET stations to operate in remote locations with no hard wired communications or power supply. This self-contained system is

used to assess candidate sites for solar or wind power production.

### Mounting

Trimark engineers stations for various mounting modes – wall, pole, channel strut and free-standing towers.

### U.L. Listed Assembly

Trimark assembles MET stations in our U.L. 508-A listed panel shop. This facility meets or exceeds U.L. Safety Standards. We have certifications across the United States and Canada.

Trimark is a California Licensed Electrical contractor (#816159).



*In addition to the standard measures, this meteorological station monitors precipitation. This station also includes a battery backup and PV-based recharging system to provide autonomous operation and ongoing data capture in case of power disruption.*



## A Proven Player in the Energy Market

Trimark Associates, Inc. develops reliable, affordable business and operational solutions that support compliance and optimization of power production.

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