



Solar Irradiance and Solar Power Forecasts

Save money and enhance your operations

[schneider-electric.com](https://www.schneider-electric.com)

Life Is On

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Highly accurate forecast solutions

As the world's population increases, so does the demand for energy. To support the ever-increasing need for power and to address mounting environmental concerns, many utilities are seeking sustainable power sources to augment traditional ones. Technological advancements and rapidly dropping costs have spurred the growth of environmentally friendly solar power. To support this fast growing market, at Schneider Electric, we offer highly accurate, premium solar forecast solutions.

New solar forecast technology

Recently, we enhanced our industry-leading solar forecast offerings with new, cutting-edge capabilities, including solar power forecasts, satellite-based nowcasts, and global forecast coverage. These sophisticated solar forecasts are ideal for utility-scale solar plants and other applications that require the highest level of accuracy.

These forecasts can help you achieve several money-saving and operational benefits, including:

- Improved power marketing choices for better financial results
- Enhanced generation planning and dispatch for expanded use of solar power
- Reduced imbalance penalties
- Reduced spinning reserves costs
- Improved ability to meet ISO/TSO commitments
- Enhanced distribution system control and system reliability for distributed solar operations

The Schneider Electric difference

Our site-specific forecasts can support all types of solar irradiance and solar power forecast requirements, for both PV and Concentrated Solar Power (CSP). In addition, these highly accurate forecasts, which employ state-of-the-art machine learning techniques, can be created for anywhere in the world. Near-term forecasting is enhanced with satellite imagery-based nowcast cloud forecasts.

We offer the following forecast types:

- PV power forecasts (KW, MW, or energy KW hours or MW hours)
- Global Horizontal Irradiance (GHI)
- Plane of Array Irradiance (POA)

Highly accurate forecasts

Employ state-of-the-art machine learning techniques and can be created for anywhere in the world.



Our solar irradiance and solar power forecasts are available for any location in the world

- Direct Normal Irradiance (DNI)
- Model-based forecasts (up to seven days out at hourly or 10-15 minute time resolution; updated four times a day)
- Satellite-based nowcasts (up to four hours out with 15-minute resolution)
- Trained or untrained forecasts — trained forecasts use state-of-the-art machine learning techniques for your specific plant(s) to further improve accuracy; untrained forecasts are provided when historical data is not available
- Distributed solar or utility scale solar for improved power generation and trading decisions

All forecasts are set up for your specific solar plant(s) or other locations of your choosing, and are delivered via our reliable FTP system.

WeatherSentry Solar Edition

With your forecast you'll receive a login to WeatherSentry Online® Solar Edition. With it, you can improve your decisions with detailed tabular and graphical displays of hourly, sub-hourly, and nowcast forecasts for DNI, GHI, and power. This is a complete weather service, showing you current and expected weather conditions to help you better anticipate generation. It also provides alerting, lightning data, and many other beneficial features.

Part of a complete solutions suite

Our solar and solar power forecasts are just two components in our suite of energy-focused weather solutions. These solutions are designed to help you operate more efficiently, improve customer service, and keep your employees safer while protecting your bottom line.

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