SolarAnywhere® Forecast

Maximize grid stability and asset profitability with global solar power forecasting



- Optimize energy trading outcomes to maximize ROI
- Reduce operational & market risk
- Intelligently manage reserve and dispatchable generation
- Support DERMS, ADMS and utility operations
- Meet utility & market participation requirements
- Quantify forecast uncertainty with day-ahead probabilistic forecasts



About SolarAnywhere

SolarAnywhere solar resource data and intelligence supports the entire solar lifecycle—from prospecting and development, to asset management and production forecasting. To learn more about industry-leading data and services from Clean Power Research®, visit solaranywhere.com.

SolarAnywhere® Forecast provides insight into expected PV production for the next weeks, days, hours or minutes

Variability from localized cloud movement and weather events is a challenge inherent to the solar industry. However, with an advanced understanding of forecasted PV production, solar stakeholders can reduce and quantify risk, enhancing operational performance.

Using a research-backed blend of numerical weather prediction, satellite cloud motion vector modeling and other meteorological inputs, SolarAnywhere Forecast delivers the data necessary to make strategic business decisions. Forecast enables asset owners and operators to confidently participate in energy markets, Independent Power Producers (IPPs) to meet their PPA requirements and utilities to minimize costs by efficiently managing spinning reserves and dispatchable energy resources.

Reduce financial risk with leading solar resource forecasting technology

Optimized model
Curated blend of forecasts for increased accuracy

Energy modeling
Supports bifacial, soiling, snow loss, curtailment scheduling & more

1-minute resolution
High-resolution forecasts reflecting cloud motion modeling technology

Global coverage
Available everywhere you operate

Enterprise-class API
Unlimited API calls
Easy-to-use, reliable & secure

Industry expertise
Active research team and technical experts

Superior Day-Ahead Forecast Accuracy

This table presents the 24-hour accuracy of hourly GHI forecasts, based on 103 years of global, ground-based reference data. SolarAnywhere demonstrates superior performance over the GFS benchmark across varied environments. For additional statistics, refer to our deterministic forecast model validation paper.

Region	Accuracy Metric	SolarAnywhere	GFS (Benchmark)
Global	rMBE	1.4%	5.3%
	rMAE	19.6%	30.1%
	rRMSE	30.5%	43.7%
North America	rMBE	0.3%	5.5%
	rMAE	16.7%	26.9%
	rRMSE	26.7%	38.8%

License Types & Specifications

	Basic	Standard	Advanced
Overview	**Basic solar and power forecasts for DER and grid operational insights** Support DERMS, ADMS and commercial operations	**Industry-leading forecasting for delivery prediction and flexibility** Bid into day-ahead energy markets Meet utility PPA requirements	**The most accurate data for quantifying risk and maximizing profits** Inform real-time energy trading Understand day-ahead risk with probabilistic forecasts
Numerical Weather Prediction Models (NWP)	✓	✓	✓
Satellite Cloud Motion		✓	✓
Intelligent Model Blending		✓	✓
High Resolution (1-minute) Data			✓
Probabilistic Forecast Access			✓
Delivery Options	API, Dashboard	API, SFTP, AWS S3, email, Dashboard	API, SFTP, AWS S3, email, Dashboard
Forecast Resolution	1-hour 25 km	1-hour, 30-, 15-, 10-, 5-minute 10 km	Standard + 1-minute 10 km, 1 km
Forecast Horizon	5 days ahead	14 days ahead; 75 days ahead, climatology	Standard + high resolution: 0–1 hour ahead Probabilistic: 40 hours ahead
Geography[1]	Global up to 80° N/S	Global up to 60° N/S	Global up to 60° N/S
Product Support	SolarAnywhere's highly responsive customer support team is available for site-specific forecast set up, modeling, tuning, delivery and troubleshooting		

Data Fields	
Irradiance	GHI[2], DNI, DHI, POAI[2] (plane-of-array irradiance), clear-sky GHI, clear-sky DNI, clear-sky DHI
Weather and Auxiliary	Temperature, wind speed, snow depth, relative humidity, liquid/solid precipitation, particulate matter
Power Modeling	AC power[2] (kW), DC power (kW), AC energy[2] (kWh), clear sky power (kW), snow/soiling losses, bifacial PV, capacity derate scheduling[2], fixed tilt, single-axis, trackers, backtracking

[1]Learn more about SolarAnywhere geographical coverage at solaranywhere.com/support/geographic-coverage
[2]Available in probabilistic forecast

Learn More

Interested in finding out more about SolarAnywhere Forecast?

Visit our website:
Go to solaranywhere.com to learn more about SolarAnywhere Forecast

Ask a question:
Email our sales and technical teams at support@solaranywhere.com

Request a trial:
Ready to try it out? Request a Forecast trial at solaranywhere.com/contact and validate forecast for previous time periods (hindcasts)

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