SolarAnywhere® Data

High-Accuracy TMY, Time-Series & Site-Adapted Irradiance Data for Solar Resource Assessment

- ✔ Evaluate development sites
- ✔ Secure project financing
- ✔ Model long-term energy production
- ✔ Assess climate risk scenarios

Why SolarAnywhere?

Comprehensive solar data
Bankable, built-for-solar irradiance data with extensive meteorological datasets

High-resolution data
Spatial: 10 km, 1km, 0.5[1]
Temporal: 1 hr, 30 min, 15 min, 5 min[1], 1 min[1]

Global coverage
Global SolarAnywhere datasets up to ±60°
Basic high-latitude datasets between ±60° and ±80°

Energy modeling
Energy modeling through SolarAnywhere API
POAI, bifacial PV and more

25+ years of historical data
Increase accuracy with long-term historical data

Extreme weather and loss insights
Understand risk with extreme weather datasets and Map Overlays

[1]Resolution coverage dependent on location

Reduce project risk with industry-leading insight into long-term historical irradiance availability

Typical Year (TMY) Data

Quickly assess project feasibility at prospective sites with SolarAnywhere® Typical Year data. Typical year (TMY) data is a representative year of hourly meteorological datasets derived from the most "typical" months across years of time-series data. This provides site-specific insight into PV production for evaluation and energy simulations.

Time-Series Data

Optimize project design and secure the best financing terms with bankable, full historical data. SolarAnywhere provides a long history (25+ years) of subhourly time-series irradiance and weather data. Ideal for in-depth resource assessment, performance analysis, engineering and understanding interannual variability.

Site Adaptation (Ground Tuning)

Combine your ground-based measurements with SolarAnywhere satellite-based irradiance data to reduce solar resource assessment uncertainty and increase project profitability. SolarAnywhere Site-Adaptation Studies use an advanced methodology to tune long-term solar resource data to the unique conditions of your site.

MeteoLens™ Climate Datasets

Specialized, PV-modeling-tool ready datasets that extend the time horizon from 1960 to 2099 to enable deeper insights into yield and risk over a solar project's lifetime. Enable more robust performance analysis, resilient system design and long-term scenario planning with the MeteoLens upgrade.

"As a leading global renewable energy developer, we strive to be the best energy partner for our customers. SolarAnywhere provides us with thoroughly tested and validated historical solar data. With SolarAnywhere, we can reliably and consistently define solar energy production and reduce project risk for our customers."

Prathamesh Thorat
Performance Specialist
BayWa r.e.

Ask about our **real-time** and **forecast** data offerings.

SolarAnywhere Historical Data Validation

SolarAnywhere global horizontal irradiance (GHI) data is highly accurate, as reported in annual updates to the 95% confidence interval.

Region	rMBE	95% C.I. of MBE	Standard Dev.	Ref. Years
North America	0.27%	[-2.92%, 3.47%]	1.63%	296
South America	0.01%	[-4.06%, 4.08%]	2.08%	80
Europe	-0.33%	[-5.14%, 4.48%]	2.45%	498
Oceania & East Asia	0.37%	[-4.59%, 5.33%]	2.53%	230
Africa & West Asia	0.70%	[-4.10%, 5.50%]	2.45%	137
All	**0.08%**	**[-4.43%, 4.59%]**	**2.30%**	**1241**

The statistics presented above are representative of product performance but should not be taken as an absolute indicator of accuracy. For additional information, see our Validation Methodology page.

Specifications

License Type	**Typical Year (TMY), Typical Year+ (TMY)**	**Sites (Time Series)**
Time Period[1]	Based on data from 1/1/1998 – year prior to current	1/1/1998 – current hour
Geography[1]	Global	Global
Spatial Resolution	10 km, 1 km[2]	1 km, 0.5 km[3]
Temporal Resolution	1 hour, 30 minute[2], 15 minute[2], 5 minute[2], 1 minute[2]	1 hour, 30 minute, 15 minute, 5 minute[3]
Data Fields	**Irradiance** GHI DNI DHI Clear sky irradiance **Weather** Temperature Wind (speed, direction, gust) Snow depth Relative humidity Precipitation Particulate matter	**Geography** Elevation Surface albedo High-resolution (30m) horizon shading **Power Modeling** AC energy (kWh) AC power (kW) DC power (kW) Clear sky power (kW) Plane-of-array irradiance (POAI) Fixed tilt, single-axis trackers, backtracking Soiling losses Snow losses Time-series albedo data in PV simulations Bifacial PV

[1]See SolarAnywhere Geographic Coverage Area for more details

[2]Available with Typical Year+ license type

[3]Resolution dependent on location

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.

