

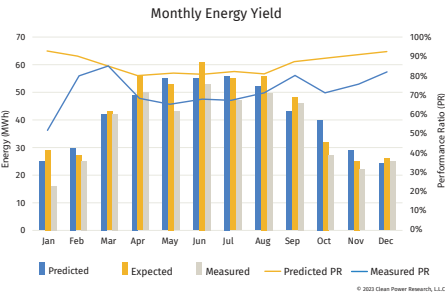
SolarAnywhere® SystemCheck®

Highly accurate, real-time solar resource data and energy production estimates



Advanced Solar Intelligence for O&M

- ✓ Benchmark PV performance
- ✓ Streamline asset monitoring using an enterprise-class API
- ✓ Efficiently detect and diagnose production loss events
- ✓ Decrease OPEX by transitioning to reliable satellite data feeds
 - Reduce reliance on MET stations
 - Decrease unnecessary truck rolls



“The difference between the SystemCheck data and that of a professionally installed & Calibrated MET station was calculated to be equal to or less than the measurement accuracy of the weather stations. Combine this accuracy with the increased reliability that SystemCheck offers, and you have an O&M solution that costs less and saves valuable personnel resources that can instead be focused on value-added repairs and maintenance. Less time and truck rolls are dedicated to MET stations, leaving more time for the energy-generating equipment”

Nick Pegnato
Performance Engineering Manager
BayWa re.

Industry-leading, up-to-current-hour PV production data for benchmarking and loss event detection

SolarAnywhere SystemCheck is a modern solar data tool for asset owners and operators that supports performance benchmarking and monitoring. SystemCheck leverages the SolarAnywhere irradiance model to independently estimate the solar resource availability at your site and generate weather-normalized production estimates in real time (trailing 45 days to current hour). Use SystemCheck to evaluate the performance of individual or fleets of PV systems, make intelligent asset management decisions and identify production loss events—all at a fraction of the cost of lost energy production, on-site equipment or unnecessary truck rolls.

Power your operations with leading PV production intelligence



True Real-Time Data
Up to the current hour, always



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



Advanced Energy Modeling
No-cost energy modeling
Bifacial, soiling, snow loss & more



Enhanced Accuracy
Satellite data retrieved every 30 minutes at 1 km resolution



Global Coverage
Available everywhere you operate to scale with your business



Industry Expertise
Industry-leading irradiance modeling driven by an exclusive partnership with Dr. Richard Perez at SUNY-Albany

SolarAnywhere SystemCheck Validation

The SystemCheck real-time model provides data up to the current hour, with observations updated every 30 minutes. This real-time data model is optimized to provide fast results without sacrificing the accuracy of the bankable SolarAnywhere historical model. The table below compares relative mean absolute error (rMAE) and relative root mean square error (rRMSE) calculated for real-time and historical (V3.7) data across 12 validation sites in the United States. If you are interested in learning more, request the in-depth validation of the real-time or historical data model from the SolarAnywhere team.

		Real-Time Model	Historical Model V3.7	Difference ¹
GHI rMAE	Annual ²	1.0%	1.3%	0.3%
	Monthly	3.1%	2.3%	0.8%
	Hourly	11.0%	10.7%	0.3%
GHI rMSE	Annual ²	1.0%	1.3%	0.3%
	Monthly	3.9%	2.9%	1.0%
	Hourly	17.5%	17.3%	0.2%

¹Difference = Absolute Value (Historical - Real-Time)

²Annual rMAE and rMSE are identical because only one year is considered in the calculation

Licensing

Included

- Real-time irradiance data: 45-days – current hour
- All irradiance data fields (GHI, DNI, DHI, clear sky)
- Standard weather data fields:
 - Wind speed
 - Temperature
 - Relative humidity
- Surface albedo & far-horizon shading
- All power modeling data fields

Add-ons

- Extended historical backfill (beyond 45 days)
- Typical year data
- Advanced weather data fields:
 - Precipitation
 - Snow depth
 - Particulate matter
- Forecast
- Hindcast

SolarAnywhere SystemCheck Specifications

Access	Real-time weather data and PV power simulations with 45-day lookback			
Access Point	API			
Geography¹	Global			
Spatial Resolution	Standard: 10 km Enhanced: 1 km			
Temporal Resolution	Standard: 1-hour Enhanced: 1-hour, 30-minute, 15-minute			
PV System Data Options	PowerClerk integration, Clean Power Research PV specification inference model or custom file import			
Data Fields	Irradiance GHI DNI DHI Clear sky irradiance	Weather Temperature Wind speed Snow depth Relative humidity Precipitation	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 Snow losses Bifacial PV	Other Surface albedo Far-horizon shading
Options	Get any data needed for your application through our seamless API. Options include longer lookbacks, historical data, and forecasts.			

¹ Learn more about SolarAnywhere coverage at www.solaranywhere.com/support/geographic-coverage/

Learn More

Interested in learning more about SolarAnywhere SystemCheck? Visit www.solaranywhere.com/products/solaranywhere-systemcheck/

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 www.solaranywhere.com