



SolarAnywhere® SystemCheck®

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



Advanced Solar Intelligence for O&M

- ✓ Benchmark PV performance
- ✓ Streamline asset monitoring using an enterprise-class API
- ✓ Decrease OPEX by transitioning to reliable satellite data feeds
 - Reduce reliance on MET stations
 - Decrease 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



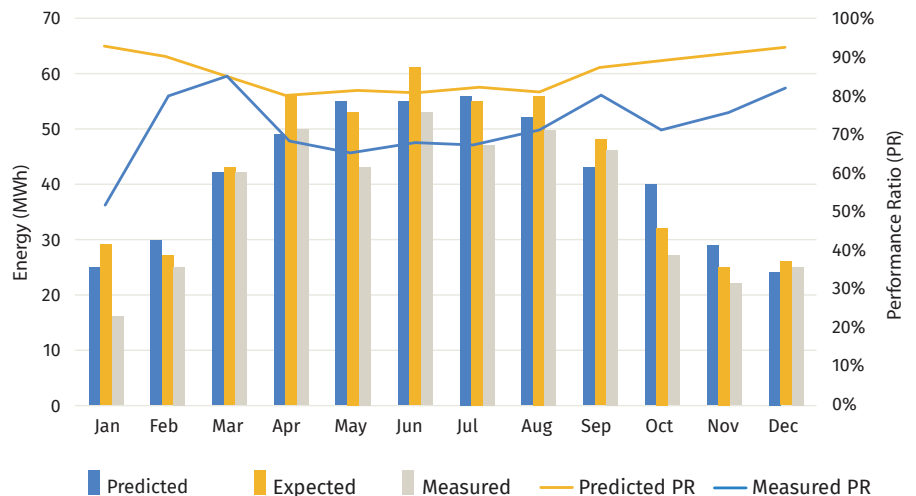
Industry Expertise

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

Industry-leading irradiance, weather and PV production data for benchmarking and operational monitoring

SolarAnywhere SystemCheck is a modern solar data API that helps asset owners and operators assess system performance. 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.

Monthly Energy Yield



© 2023 Clean Power Research, L.L.C.

Tracking KPIs using reliable estimates of expected power from SolarAnywhere SystemCheck

"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 r.e.



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 on the right 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 ¹	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

SolarAnywhere SystemCheck Specifications

Time Period	-45 days through current hour (nowcast)			
Access Point	API			
Geography ¹	Global			
Spatial Resolution	1 km			
Temporal Resolution	1-hour, 30-minute, 15-minute			
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	Auxiliary Surface albedo Elevation
Options	Get any data needed for your application through our seamless API. Include historical data past the trailing 45 days a la carte or ask about including SolarAnywhere Forecast® with your purchase.			

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