



# 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 5  
minutes at 500 m resolution



### Global Coverage

Available everywhere you  
operate to scale with  
your business



### SystemCheck Dashboard

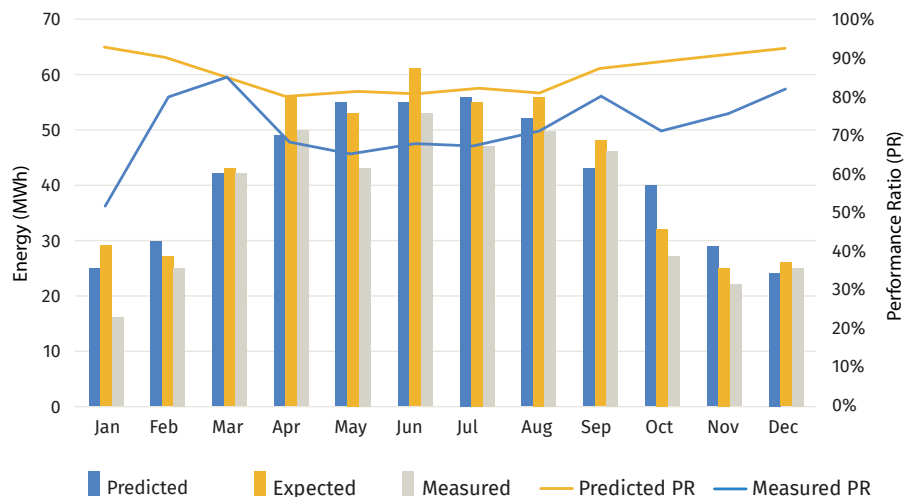
Visualize real-time data  
within the SystemCheck UI,  
no coding required

## 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



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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 up to every 5 minutes. The model is optimized to provide fast results without sacrificing 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. To learn more, request the in-depth real-time or historical data model validation from the SolarAnywhere team.

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

<sup>1</sup>Difference = Absolute Value (Historical – Real-Time)

<sup>2</sup>Annual 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	SolarAnywhere API, SystemCheck Dashboard			
Geography	Global <sup>1</sup>			
Spatial Resolution	10 km, 1 km, 500 m <sup>1</sup>			
Temporal Resolution	1 hour, 30 minute, 15 minute, 5 minute <sup>1</sup>			
Data Fields	<b>Irradiance</b> GHI DNI DHI Clear sky irradiance	<b>Weather</b> Temperature Wind speed Snow depth Relative humidity Precipitation	<b>Power Modeling</b> 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	<b>Auxiliary</b> 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.			

<sup>1</sup> See the [SolarAnywhere Geographic Coverage Area](#) page for more details

## Learn More

Interested in learning more about SolarAnywhere SystemCheck? Visit [solaranywhere.com/products/solaranywhere-systemcheck](https://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 [solaranywhere.com](https://solaranywhere.com).