



- ✓ Increase yield assessment accuracy
- ✓ Reduce solar resource risk
- ✓ Secure financing
- ✓ Optimize costs
- ✓ Account for interannual variability

### Combine the site specificity of ground station measurements with the interannual insights of long-term satellite-based data

Solar meteorological (MET) station measurements and satellite-based data each have their own distinct advantages. With a site-adaptation (ground-tuning) study, PV project engineers can access the benefits of both data sources to reduce solar resource risk and increase yield assessment accuracy.

Satellite-based SolarAnywhere irradiance data offers the long-term (25+ year) insights required to assess interannual variability and probability of exceedance levels. Ground station measurements offer increased site-specificity, especially if meteorological instruments are well-maintained.

Tuning SolarAnywhere data with high-quality, ground-measured data results in a solar resource dataset with lower uncertainty than either source independently.

#### Why SolarAnywhere?



##### Trusted tuning methodology

Account for site-specific clear sky bias and seasonal variation; KSI goodness-of-fit test and dual sliding window corrections



##### Cost effective

Pays for itself by reducing solar resource uncertainty and project risk



##### Quick turnaround

Typically completed in 10 business days or less (expedited studies available)

#### Interested in learning more?

For details, pricing information or to request a sample site-adaptation study report, reach out to our team at [solaranywhere.com/contact](https://solaranywhere.com/contact)

### Site-adaptation study deliverables

#### Solar resource assessment report

- A bankable report characterizing solar resources and uncertainty for your project
- Comparative metrics between your ground data and SolarAnywhere’s satellite-derived irradiance dataset

#### Solar resource data files tuned to your ground measurements

- 25+ years of time-series (1998–present) at a temporal resolution of up to 15 minutes, spatial resolution of 1 km
- Typical GHI Year
- Typical DNI Year



## SolarAnywhere site-adaptation methodology

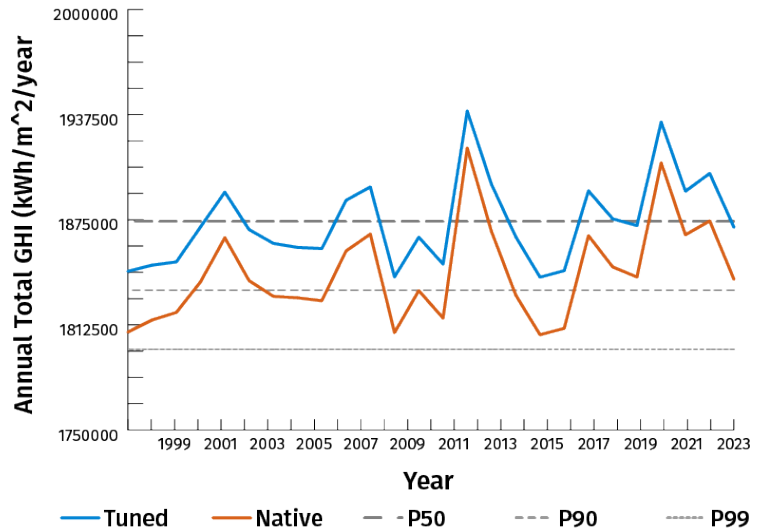
SolarAnywhere site-adaptation studies employ a tuning methodology that combines at least 12 months of ground-based measurements (GHI, wind speed, temperature) with long-term SolarAnywhere time-series irradiance data. Using the overlapping period of ground measurements and SolarAnywhere satellite-derived data, SolarAnywhere analysts correct for observed clear sky bias and seasonal variation.

Cumulative distribution between the two datasets is further decreased through a goodness-of-fit test and dual sliding window corrections. These adjustments are applied across the entire historical SolarAnywhere GHI dataset, producing tuned time-series data from 1998–present for solar resource assessment and financing.



As the accuracy of site-adaptation studies is directly impacted by the accuracy of your ground measurements, high-quality MET station data is critical. SolarAnywhere is proud to partner with GroundWork Renewables due to their gold-standard ground data program.

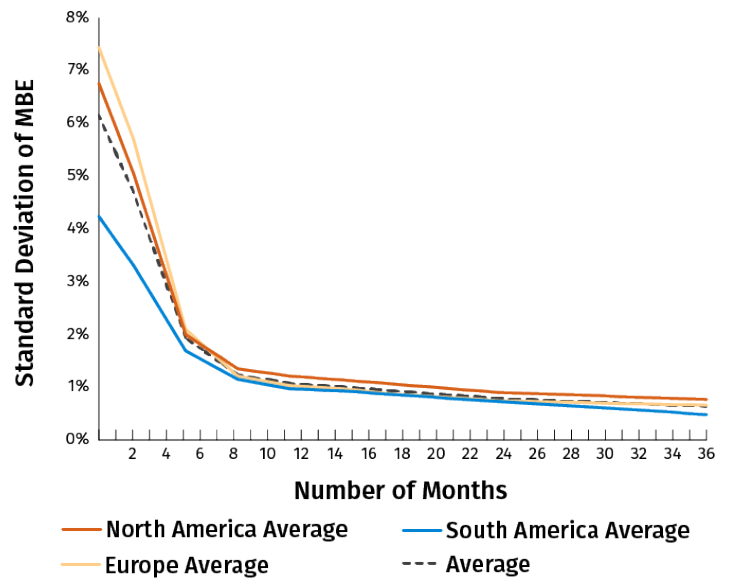
## Native vs. Tuned Data



Site adaptations lower uncertainty by correcting solar resource (TMY) based on observed data.

Utilizing SolarAnywhere satellite-based data and at least 12 months of ground measured reference data, it is possible to achieve a site-adapted data uncertainty as low as 1.2%<sup>1</sup>.

## Standard Deviation of Site-Adapted SolarAnywhere GHI MBE



<sup>1</sup>K. Wagner, A. Kubinić, T. McAlister and R. Perez, "The Importance of Data Quality for Reducing the Uncertainty of Site-Adapted Solar Resource Datasets," 2023 IEEE 50th Photovoltaic Specialists Conference (PVSC), San Juan, PR, USA, 2023, pp. 1-5, doi: 10.1109/PVSC48320.2023.10360048.

## 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 solar data and services from Clean Power Research, visit [solaranywhere.com](https://solaranywhere.com).