



Key Benefits

For development and financing of large-scale solar power projects, it is important to **quantify the solar resource and to reduce uncertainty** to a minimum.

We provide turn-key ground measurement campaigns delivering gap-free bankable data. This allows the developer to focus on other tasks. Simply put, we are a one-stop shop when it comes to solar measurements.

Our automatic weather stations are designed to integrate perfectly with our services. **Hardware is customized** according to regional and project-specific requirements, to ensure smooth campaigns and the highest data quality.

Fast deployment times, complete and transparent documentation, permanent monitoring of operation and data quality control by experts is essential to achieve bankable data quality. More than a decade of successful projects and a strong and reliable network of regional partners enable us to **quickly deliver and commission our systems worldwide**, even in remote and hard-to-reach locations.



Solar Resource Assessment – know your full potential!



Full Scope Service

- · Site selection
- Site preparation (civil works, legal clearance, etc.)
- Design, configuration and delivery of meteorological equipment according to project-specific requirements
- · Installation and commissioning of the equipment on site
- Staff training (maintenance, security, handling, etc.)
- · Continuous data quality control and operation supervision
- · Supervision and documentation of sensor cleaning
- · Regular inspection and maintenance
- International best practices reporting and documentation
- · Online access to measurement data and visualization
- Procurement of long-term ground measurement adapted satellite data, TMY files and bankable solar resource reports
- Project Management

Customized Hardware	AWS-TIER 1	AWS-TIER 2
Technical specifics	High quality weather station with sun tracker	Robust low-maintenance weather station
Solar irradiance measurement	Global Horizontal Irradiance (GHI), Diffuse Horizontal Irradiance (DHI), Direct Normal Irradiance (DNI)	
Solar sensors	ISO9060 Class A spectrally flat pyrheliometer and (ventilated) pyranometers	ISO9060 Class A spectrally flat pyranometer, Rotating Shadowband Irradiometer (RSI)
Meteorological sensors	Temperature and humidity, wind speed and direction, barometric pressure, rain	
Maintenance	3-7 cleaning & visual checks per week	1-2 cleaning & visual checks per week
Power supply	Autonomous PV with battery	
Optional	PV: Albedo, Global Tilted Irradiance (GTI), module soiling, module temperature CSP: Mirror soiling, atmospheric attenuation, sunshape	
Bankability	++	+



Cologne

CSP Services GmbH

Friedrich-Ebert-Ufer 30

51143 Cologne, Germany

Phone +49 2203 959 0030