

The P90 your lender will accept.

One year on site, and the satellite bias stops setting your debt terms.



Long-term yield estimates drive the debt sizing and the tariff of a utility-scale project, and they usually rest on satellite irradiance data alone. On any given site that data carries an error of around 5%, which shifts the P50, the P90 and the financing terms built on them. FUTURE deploys an autonomous measurement station on site, then calibrates the long-term satellite record against what the site actually receives. The output is a bankable data package delivered in months rather than the years a full measurement campaign would take.

01 What calibration is worth

5% → 0.5%

satellite irradiance error, after on-site calibration and post-processing



~2.5%

gain on the P90/P50 ratio after calibration, the uncertainty a lender prices into the debt



5 min

TMY resolution, fine enough to size a battery and sharp enough to optimise the debt



02 On site



Autonomous measurement station on a client site. Irradiation in several orientations, temperature, humidity and key microclimatic variables, recorded at 5-minute intervals over a full 12-month cycle.



"Efficient and quick! We are very satisfied with this first experience with the CALIBSUN team and are now considering deploying this tool across all our large projects."

Gonzague Vuillier, Construction Manager, Amarenco

Utility-scale project, September 2025: calibrated data delivered with GHI 1.5% above the reference satellite database, ready for the yield study.

03 From site installation to bankable dataset

1. Measure

Autonomous turnkey station running a 12-month continuous campaign, capturing seasonal variation and local weather patterns.

2. Calibrate

Systematic correction of satellite database errors at source, through on-site calibration and post-processing methods.

3. Deliver

TMY, P50 and P90 in a package structured for lenders, independent engineers and investment committees.

04 What it changes for the financing



One year on site

A 12-month continuous campaign at 5-minute resolution captures every season before the numbers reach the lender.



Microclimate captured

Site-specific irradiance conditions that satellite-based sources alone systematically miss.



Auditable by the lender

The calibration method and the raw on-site measurements are provided, so an independent engineer can review the correction.



Months, not years

A corrected long-term resource estimate without waiting out a full multi-year measurement campaign.



Reusable afterwards

The same measurements train the forecasting models once the plant is in operation.



Scientific backing

Co-developed with MINES Paris - PSL and ARMINES. Main contributor to IEA PVPS Task 16.

Sources: CalibSun project records and the FUTURE methodology. Client project referenced with the client's agreement. TMY, P50 and P90 recognised by banks and investors.