



ENERGY YIELD ASSESSMENT AND PERFORMANCE ASSESSMENTS

A SOUND ENERGY YIELD ASSESSMENT IS THE BASIS FOR ALL INVESTMENT DECISIONS RELATED TO PHOTOVOLTAIC SYSTEMS. OUR EXPERTS WILL PROVIDE THIS BASIS FOR YOUR PV PROJECTS WORLDWIDE, FOR ANY SYSTEM CONFIGURATION.



Based on proven data sources and models, we provide irradiation and energy yield assessments for any system configurations – from roof top systems to PV power plants in the 100 MW class:

- Selection of appropriate meteorological data sets from surface observation stations and weather satellites (irradiation and temperature)
- Conversion of irradiation to the inclined plane
- Analysis of the system design (power ratio, current and voltage configuration, MPP range) taking the planned service life into consideration
- Precise modelling of the PV system, including all electro-technical components and grid connections
- Detailed shade surveys
- Consideration of local conditions (e.g. snow, reflections, and soiling)
- Electrical loss calculation
- Detailed simulation of inverter limitation losses

- Definition of technical adversities and safety issues
- Uncertainty analysis
- Determination of the expected energy yield, taking into consideration the annual fluctuation range and the probability of exceeding this

For systems that are in operation, analyses of the operating data provide valuable findings while taking the actual irradiation (ex-post analysis) into consideration.

If the system's yield is lower than expected, a detailed analysis of system performance will provide helpful insights. For this purpose, we have developed our own software tools, which enable us to conduct a data analysis at the lowest monitoring level – even for utility scale systems. Our efficient method provides reliable insight on the causes of lower yields.

And after construction and commissioning, a performance assessment is useful as a prerequisite for the acceptance of the power plant.