Your challenges
Investors, owners and developers of photovoltaic (PV) power plant projects need to minimise risk in order to maximise their returns. When PV projects enter the implementation phase, stakeholders have to monitor construction to ensure all contractual obligations are met, from foundation construction to project completion. Any deviation in the quality of finished work could affect the projected energy yield. All aspects of construction quality, as well as the overall operability of installed parts and components will have an impact on the expected yield through the whole lifetime of the plant.

What is construction monitoring and why is it important to your business?
Construction monitoring is a package of independent inspections tracking the quality of construction works and the progress of construction itself. Monitoring serves to minimise the risks associated with quality and construction of PV power plants. By monitoring and addressing problems during the construction phase, stakeholders can avoid costly and time-consuming corrective actions as well as prevent delays to the start of plant operation.

How can we help you?
TÜV SÜD has extensive hands-on experience with PV projects of all sizes and is well versed with the relevant legal requirements. During the construction stage, our experts perform periodic site inspections to review the progress of PV projects against their planned schedules. We identify possible delays, cost discrepancies and shortcomings in quality of work.

Our services
- **Monitoring quality**
  TÜV SÜD monitors the overall quality of work during construction.
- **Time schedule monitoring**
  TÜV SÜD compares the progress of your solar project with the approved time schedule to ensure that it meets approved key milestones in the construction process.
Meeting contractual obligations
TÜV SÜD confirms that the work meets all conditions stated in the EPC contract and that the construction runs in accordance with the approved project schedule.

Technical requirements
We provide a team of experts focussed on evaluating electrical and civil engineering aspects. Our experts also monitor for compliance of PV technology with international and best practice requirements and standards (e.g. IEC 61215/61730/61646).

Civil engineering assessment
Our civil engineering experts confirm compliance of the mounting structure with the approved design (e.g. applied material, surface finish, inclination, foundings, thickness of the structure). Our evaluation covers fixed, single-axis as well as two-axis structures. Our assessment covers compliance of components and finished work with stated parameters in the project documentation and with relevant technical standards.

Electrical engineering assessment
Our electrical engineers confirm compliance of the electrical part of the plant with approved project documentation. We ensure that all electrical components are installed according to local/international standards and best practices.

PV technology assessment
Our PV experts ensure that PV technology (modules and invertors) comply with approved project documentation. All components should be properly installed according to local/international standards and best practices, and have valid product certificates.

Periodical reporting
We provide clients a report with the overall evaluation for each visit performed during the construction phase.

Your business benefits

- **Minimise risks** – by identifying problems from the onset, ensuring reliable continued operation of PV power plants.
- **Safeguard your investment** – with a realistic assessment of project risk, delivery and performance for maximum predictability of return on investment.
- **Strengthen your asset value** – by partnering with a globally renowned third-party service provider.
- **Receive global support** – from our strong international and regional presence, providing you with our high level of knowledge in global PV markets, as well as expert staff with the best local knowledge.

Why choose TÜV SÜD?
TÜV SÜD has a strong reputation as an independent and impartial technical service provider, ensuring that our clients receive unfiltered information and assessments they can rely on. We offer international expertise together with local knowledge, with in-depth familiarity of all relevant international directives and regulations. Our offices are located in all key markets to provide immediate and cost-effective support.

TÜV SÜD provides a wide range of PV plant services based on an interdisciplinary approach that draws from many related engineering disciplines and decades of experience in international public, private and joint-sector projects. Our service portfolio supports you throughout the entire lifecycle of your PV installation. We offer deep knowledge of critical components and structures, typical defects and efficient performance.

Choose certainty. Add value.
TÜV SÜD is a premium quality, safety and sustainability solutions provider that specialises in testing, inspection, auditing, certification, training and knowledge services. Represented in over 800 locations worldwide, we hold accreditations in Europe, the Americas, the Middle East, Asia and Africa. By delivering objective solutions to our customers, we add tangible value to businesses, consumers and the environment.

**Related services**
TÜV SÜD provides the following related services:
- Pre-shipment and post-shipment services
- Financial monitoring
- Performance Acceptance Test (PAT) and Final Acceptance Test (FAT)
- PV plant certification
- Testing of modules and invertors