



South Asia

Choose certainty.
Add value.

Owner's engineer services for renewable energy

Project management for onshore and offshore wind farms, solar power plants, wave and tidal arrays.

Your challenges

Contracting and constructing renewable energy projects requires a thorough and professional approach to the management of design, contracting, construction monitoring and quality assurance, as well as rigorous contract administration. This in turn will minimise risk and maximise return on your investment. An independent owner's engineer provides the support you need to meet these challenges.

What services does TÜV SÜD provide for owners of renewable energy projects?

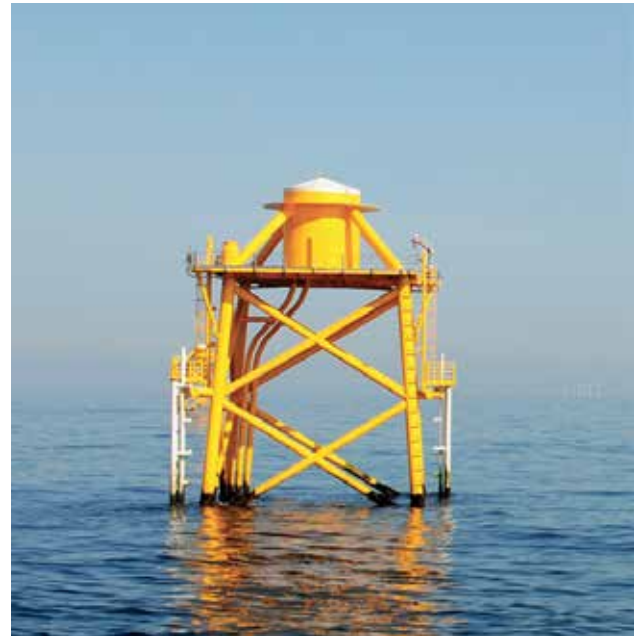
TÜV SÜD's experts provide project management and quality assurance support during all stages of the asset lifecycle as an owner's engineer. We support owners by either taking on a defined role, such as a technical reviewer, or by being fully involved in all aspects of the project.

Why are these services important for your business?

You can minimise risks to your projects by verifying that designs are compliant with the requirements of the project, international standards and good engineering practice. Robust contracting will enable the selection of appropriate and competent contractors and suppliers, secured on a firm contractual basis. Rigorous construction monitoring and quality assurance gives confidence that projects are constructed in line with specified time, cost and QHSE objectives.

How can we help you?

Our experts are qualified to provide professional owner's engineer services. They possess extensive experience, having worked with a diverse range of clients constructing renewable energy projects around the world.



Our owner's engineer services

▪ Onshore wind farms

- Site investigation and geotechnical services
- Design services (access studies and highways agreements, civil infrastructure, electrical system, electrical and wind turbine studies, grid connection)
- Tendering and contracting management (wind turbine supply, civil works, electrical works and balance of plant, contestable grid connection works, operation and maintenance)
- Wind turbine power curve warranty, siting, certification and grid code compliance
- Detailed design reviews
- Construction monitoring including site representation, progress monitoring, factory inspections and verification of works quality control and tests on completion
- Contract administration and commercial management
- Contract claims management
- Health and safety management
- Consents and environmental management

▪ Offshore wind farms, wave and tidal arrays

- Site investigation management
- Design services and studies (concept / FEED / specifications for offshore and onshore construction requirements, transportation and logistics, ports and harbours, O&AM technology assessment, layout design, resource analysis and optimisation, foundations, electrical infrastructure, array and export cabling, grid connection and compliance, etc.)
- Cost modeling CAPEX / OPEX
- Tendering and contracting management (OEM technology supply contracts, works packages and balance of plant, contestable grid connection works, operation and maintenance, etc.)
- OEM Technology warranties, siting, certification and grid code compliance
- Detailed design reviews and interface management
- Construction monitoring including site representation, progress monitoring, factory inspections and verification of works quality control and tests on completion
- Contract administration and commercial management
- Contract claims management
- Risk management
- Health and safety management
- Consents and environmental management

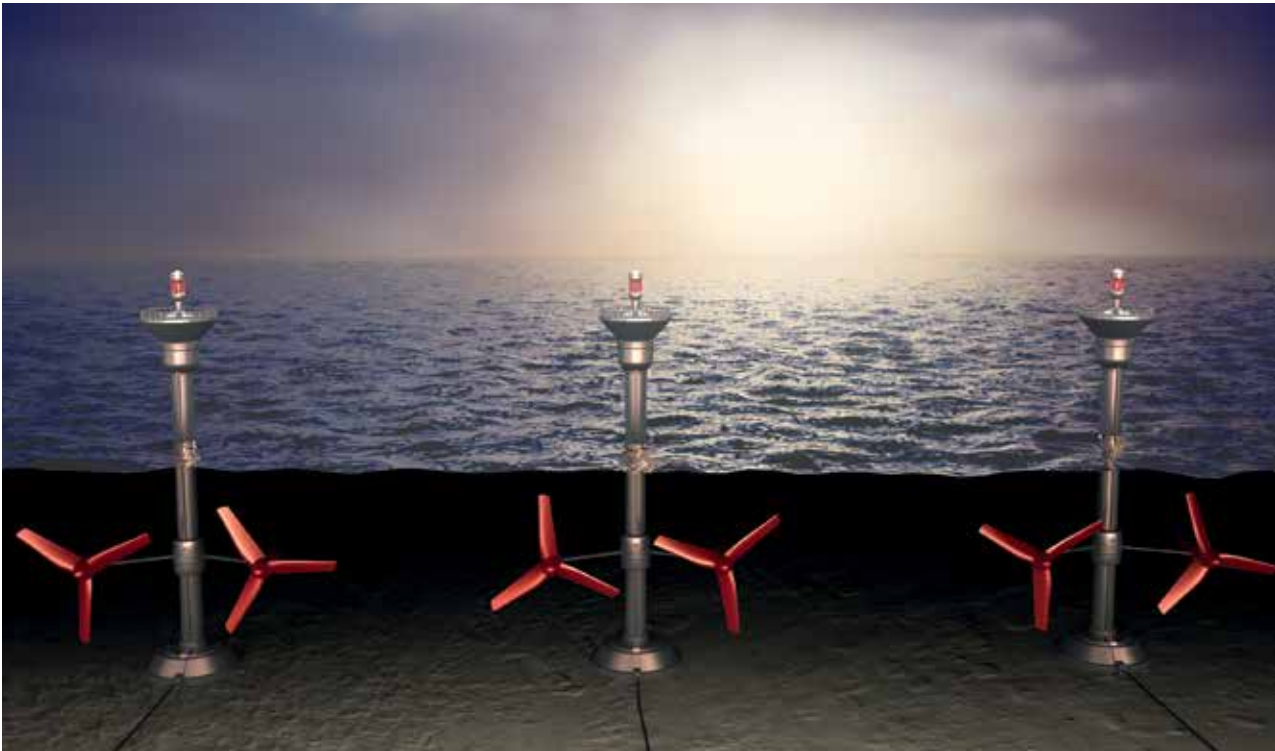


▪ **Solar power plants**

- Consulting and studies at concept stage (prepare project scope, evaluate budget, feasibility and site studies, technology concept studies, project facilitation, grid connection studies)
- Tendering and contracting management during pre-construction phase (EPC contract, detailed project reports)
- Project management consultancy services (detailed design reviews, construction monitoring including site representation, factory inspections, vendor evaluation, progress monitoring and expediting, pre-and post-shipment inspections, quality assurance and quality control during commissioning, welding supervision and non-destructive testing, licensing documentation review, commercial monitoring, supervision during commissioning)
- Post-commissioning services (plant performance assessments, assistance during operation and maintenance, in-service plant inspection, contract claims management, health and safety management, etc.)

Your business benefits

- **Safeguard your investment** – with realistic assessments of project risk, delivery and performance for maximum predictability of return on investments.
- **Improve cost certainty** – by using our integrated service approach to ensure comprehensive assessment of your project and identify areas for cost savings.
- **Save time and improve performance** – by outsourcing planning and construction to an expert partner that delivers single-source control.
- **Benefit from one-stop solutions** – with our tailored owner's engineer services, from feasibility to commissioning.



Why choose TÜV SÜD?

TÜV SÜD is widely known as an independent third-party solutions provider capable of delivering reliable and in-depth knowledge services. We have long-standing experience and comprehensive knowledge in supporting a wide range of renewable energy projects at different stages in the project lifecycle.

Our world-class expertise includes extensive knowledge of international directives and regulations. In addition, our presence in key locations worldwide means that we have the international reach to provide services locally while ensuring premium quality.

Choose certainty. Add value.

TÜV SÜD is a premium quality, safety and sustainability solutions provider that specialises in testing, inspection, auditing, certification, training and assessment 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:

- Project development
- Project delivery for renewable energy markets
- Due diligence for renewable energy
- Operations and asset management services
- Licensing, consenting and environment