



TWI AND THE RENEWABLES INDUSTRY

TWI has built up decades of experience working across the renewables industry, including wind, solar, hydropower, tidal, hydrogen, biomass waste-to-energy and geothermal.

We also have experience of energy storage, providing impartial advice and expertise on all aspects of renewable energy storage and devices, reducing whole life costs.

Supporting the whole scope of the sector, from SMEs and operators to the supply chain, we have developed everything from robotic inspection solutions to novel materials and coatings for the harshest environments.

TWI provides a single-point access to technical and project management support across the renewables sector.

The breadth of in-house expertise offered in materials, fabrication, repair, non-destructive testing (NDT), structural integrity, O&M optimisation, and training enables us to offer a cost-effective and fully integrated service.



Renewables Industry Expertise

Our expertise in the renewables industry includes:

- Asset Integrity Management
- Bespoke Mechanical Testing Services
- Coating and Surface Engineering
- Composites Joining
- Condition and Structural Health Monitoring
- Fatigue Design and Assessment
- Failure Investigation
- Manufacturing and Production Support
- Procedure and Test Method Development
- Non-Destructive Testing (NDT) and Inspection Services
- New Metallic and Polymeric Material Evaluation (inc. aggressive environment testing)
- Welding (inc. out-of-chamber electron beam and friction welding)
- Industry-Ready Software Solutions
- Codes, Standards, Regulations and Compliance
- Training

Adding Value

Partnering with TWI allows you to benefit from:

- **Reduced Costs** – through improved processes, optimised fabrication, minimised operation and maintenance (O&M) requirements, improved performance, extended life and durability
- **Added Functionality** – through the introduction of materials with dual or improved properties
- **Previous Experience and Expertise** – gained over decades of experience working with many of the largest names in the sector
- **Certified Quality** - to ISO 9000 series of standards
- **Responsive Problem Solving** – rigorous lab-based research to meet the challenges of the industry

TWI Support

TWI research and development is undertaken in strict confidence with both individual experts and multi-disciplinary teams being available to solve all kinds of challenges related to material joining, functional coatings, surfacing, inspection, integrity management, and more.

Our work in other industries, such as oil and gas and marine, allows us to migrate technologies and solutions between applications to find the best solutions, while covering the entire scope of development activities, from design concepts through to advanced materials assessment, simulation and modelling and manufacture. We also offer in-service support using science and technological experience to solve any problems and mitigate against failure, creating bespoke solutions for our clients.

As part of our Core Research Programme, TWI has developed innovative joining technologies which are either ready for use in the renewables sector, or could be further developed for commercial exploitation. Our expertise means that we are actively involved in a number of committees for standards related to the renewables sector, while we also offer training services in welding and NDT for industry.

FOR MORE INFORMATION, PLEASE CONTACT US AT STEPHEN.ANARAH@TWI.CO.UK.