

ONSHORE WIND POWER

SAFE, RELIABLE & VIABLE



BUREAU
VERITAS

SAFETY, QUALITY AND PERFORMANCE THROUGHOUT THE LIFECYCLE

Bureau Veritas helps optimize your wind projects with dedicated solutions for blades, gearboxes, generators, towers, foundations and balance of plant.

Safety, quality and performance are paramount when developing and operating onshore wind power installations. Bureau Veritas is with you every step of the way throughout the asset lifecycle to ensure projects run safely and efficiently.

Our experts act as your eyes and ears on the ground throughout asset origination, project development and project deployment. Thanks to our certification services, you have the certainty that your projects comply with regulations and industry standards.



OWNER'S ENGINEERING • TECHNICAL ADVISORY • INSPECTION & CERTIFICATION



CERTIFICATION

Demonstrate compliance & secure viability

- Approvals in Principle
- Prototype certification
- Component certification
- Type certification
- Project certification



DESIGN & PERMITTING

Reduce development risk

- Wind resource assessment
- Site assessments (energy yield analysis, site suitability, micro-siting, noise)
- Grid connection assessment
- Design review
- Environmental impact & social assessment
- Permitting support
- Risk assessment
- Due diligence
- Cybersecurity risks mitigated



PROCUREMENT

Access a global, reliable supply chain

- Supply chain technical assessment
- Technical procurement support
- Shop inspections (QA/QC)
- Expediting
- Factory acceptance tests
- Transport, loading & unloading supervision



CONSTRUCTION

Run projects safely and to schedule

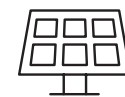
- Project & construction management support
- On site QA/QC
- On site HSE
- Turbine foundation supervision
- Commissioning & test-run supervision
- Take over & end-of-warranty inspections



ASSET OPERATION

Ensure availability & shorten outage time

- Periodic inspections of blades & main components (statutory or voluntary)
- Non-destructive testing
- Vibration monitoring
- Thermographic inspections
- ShaftTest© (ultrasonic shaft inspection)
- Oil & grease condition monitoring
- Endoscopic inspections
- Training (GWO, APQP4WIND, etc)
- Failure & damage analysis
- Performance monitoring & analysis



ASSET MANAGEMENT

Extend operating life & increase performance

- O&M management & certification
- Maintenance strategies
- Condition monitoring & assessment
- Asset integrity management
- Reliability engineering
- Performance optimization
- Cyber Security assessment
- Turbine digital twin
- Remaining life assessment, lifetime extension & life management
- Repowering & decommissioning support
- M&A



OWNER'S ENGINEERING SHAPING TRUST IN PROJECT DEPLOYMENT

Our owner's engineering services ensure you're supported throughout site selection, design, development, procurement and construction of your power plant project. You can trust that your new asset is built to required standards and to industry best-practice standards.

TECHNICAL ADVISORY SERVICES GLOBAL EXPERTISE DELIVERED LOCALLY

Renewables experts in our global network of Technical Centers help you navigate the complexity of technical, permitting and regulatory requirements at every step. These global experts relevant to the supply chain and life cycle of your asset provide the most comprehensive services for your local projects wherever they are.

SHAPING A WORLD OF TRUST

Bureau Veritas is a Business to Business to Society company, contributing to transforming the world we live in. A world leader in testing, inspection and certification, we help clients across all industries address challenges in quality, health & safety, environmental protection and social responsibility.

POWER FOR TODAY AND TOMORROW

Your partner in the energy transition, Bureau Veritas helps society to meet today's energy needs and transition to a low-carbon future.



**BUREAU
VERITAS**

Shaping a World of Trust

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