

Value Added Services.

	ONSHORE	OFFSHORE	INDUSTRY
Service and Maintenance			
Maintenance according to manufacturer's specifications	●	●	●
Mechanical maintenance according to manufacturer's specifications	●	●	●
Electrical maintenance according to manufacturer's specifications	●	●	●
Torque check, including documentation	●	●	●
Repairs			
Repair and replacement of components	●	●	●
Implementation and execution of expert specifications	●	●	●
Base frame repair	●	●	
Fault analysis	●	●	●
Gearboxes			
Installation of upgrades	●	●	
Replacement and fabrication of hose connections	●	●	
Bearing replacement	●	●	
Replacement of gearbox and hydraulic oils and coolants	●	●	
Filtration of gearbox and hydraulic oils	●	●	
Endoscopy	●	●	
Vibration analysis	●	●	
Fault analysis	●	●	
Drive Train			
Drive train check	●	●	
Drive train alignment	●	●	
Retrofits*			
Mechanical retrofits	●	●	●
Electrical retrofits	●	●	●
Marine Coordination			
Charter agreements		●	
Harbor coordination		●	
Support of Port State Control MOU		●	
Logistics		●	
Communication agency		●	
On-hire survey		●	
24/7 Availability		●	

	ONSHORE	OFFSHORE	INDUSTRY
Safety Inspection*			
Expert inspection and maintenance of lifting devices	●	●	
Expert inspection and maintenance of ladders and treads incl. climbing protection	●	●	
Expert inspection and maintenance of suspension points	●	●	
Expert inspection and maintenance of service lifts/climbing aids	●	●	
Expert inspection and maintenance of personal protective equipment	●	●	
Expert inspection including TÜV testing	●	●	
Repairs of safety components	●	●	
Installation and Commissioning*			
Installation of wind turbines	●	●	
Mechanical commissioning	●	●	
Cold commissioning	●	●	
Hot commissioning	●	●	
Testing and trial run	●	●	
Pre-commissioning	●	●	
Repowering			
De-installation of wind turbines	●		
Transport of wind turbine components	●		
Large component replacement*			
Generator	●	●	
Gearbox	●	●	
Azimuth gears	●	●	
Switchgears	●	●	
Transformer	●	●	
Pitch gears	●	●	
Tower*			
Torque check, including documentation	●	●	●
Tower flange repair	●	●	
Gap measurement of flange connections	●	●	●
Expansion measurement of anchor bolts	●	●	●
Engineering			
Design and development of components	●	●	
Development of concepts	●	●	
Quality assurance			
Maintenance of main components according to manufacturer's specifications	●	●	●
Long-term storage of main components	●	●	●
Non-destructive materials testing			
Dye penetration testing PT	●	●	●
Magnetic particle testing MT	●	●	●
Testing of load-bearing components	●	●	
Rotor blade in cooperation with ROBUR/WKA			
Maintenance	●	●	
Repairs	●	●	
Reports	●	●	

*Wind turbine independent of manufacturer