Value Added Services.

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 Repairs Repair and replacement of components Torque check, including documentation Repairs Pault analysis Pault analys		ONSHORE	OFFSHORE	INDUSTRY
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 Intrallement and fabrication of hose connections Bearing replacement Replacement and fabrication of hose connections Bearing replacement Replacement and fabrication of hose connections Bearing replacement Replacement and specifications Proteoment Replacement of gearbox and hydraulic oils and coolants Filtration of gearbox and hydraulic oils Endoscopy Vibration analysis Fout analysis Drive train dignment Drive train of beck Drive train alignment Beachancel retrofits Beachancel retrofits Support of Port State Control MOU Logistics Communication agency On-hire survey	Service and Maintenance			
manufacturer's specifications Installation cancer of the specifications Installation of expert specifications Installation of expert specifications Installation of upgrades Installation of upgrades Installation of upgrades Installation of gearbox and hydraulic oils and coolants Installation of gearbox and hydraulic oils Installation of gearbox Installation of gearbox<	Maintenance according to manufacturer's specifications	•	•	•
manufacturer's specifications•Torque check, including documentation•RepairsRepair and replacement of components•Implementation and execution of expert specifications•Base frame repair•Fault analysis•Cearboxes•Installation of upgrades•Installation of upgrades•Replacement and fabrication of hose connections•Bearing replacement•Replacement of gearbox and hydraulic oils and coolants•Filtration of upgrades•Endoscopy•Vibration analysis•Fault analysis•Drive train check•Drive train check•Drive train alignment•Mechanical retrofits•Mather Coordination•Harbor coordination•Support of Port State Control MOU•Logistics•On-hire survey•	Mechanical maintenance according to manufacturer's specifications	•	•	•
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 and coolants ● Fault analysis ● Protocopy ● Vibration analysis ● Fault analysis ● Drive train check ● Drive train check ● Drive train check ● Electrical retrofits ● Mechanical retrofits ● Electrical retrofits ● Marbor coordination ● Support of Port State Control MOU ● Logistics ● Communication agency ●	Electrical maintenance according to manufacturer's specifications	•	•	•
Repair and replacement of components Implementation and execution of expert specifications Base frame repair Fault analysis Fault analysis Cearboxes 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 and coolants Filtration of gearbox and hydraulic oils and coolants Filtration of gearbox and hydraulic oils Computed State Control MOU Certain alignment Fault analysis Filtration of the control MOU Logistics Communication agency On-hire survey	Torque check, including documentation	•	•	•
Implementation and execution of expert specifications Base frame repair Fault analysis Fault analysis Cearboxes 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 Compute fault analysis Fault analysis Filtration of the second s	Repairs			
Base frame repair Fault analysis Gearboxes Installation of upgrades Replacement and fabrication of hose connections Bearing replacement Replacement Gearbox and hydraulic oils and coolants Filtration of gearbox and hydraulic oils Replacement of gearbox of g	Repair and replacement of components	•	•	•
Fault analysis • • • • • • • • • • • • • • • • • •	Implementation and execution of expert specifications	•	•	•
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 and coolants ● Filtration of gearbox and hydraulic oils ● Endoscopy ● Vibration analysis ● Fault analysis ● Fault analysis ● Drive train ● Drive train check ● Drive train alignment ● Retrofits* ● Mechanical retrofits ● Electrical retrofits ● Marine Coordination ● Support of Port State Control MOU ● Logistics ● Communication agency ● On-hire survey ●	Base frame repair	•	•	
Installation of upgrades Indexing replacement Installation of upgrades Indexing replacement Installation of gearbox and hydraulic oils and coolants Intervent of gearbox and hydraulic oils Indoscopy Intervent of gearbox and hydraulic oils Intervent of the survent of t	Fault analysis	•	•	•
Replacement and fabrication of hose connections Replacement and fabrication of hose connections Replacement of gearbox and hydraulic oils and coolants Filtration of gearbox and hydraulic oils and coolants Filtration of gearbox and hydraulic oils and coolants Filtration of gearbox and hydraulic oils Chadscopy Filtration of gearbox and hydraulic oils Chadscopy Filtration of gearbox and hydraulic oils Filtration Filtration of gearbox and hydraulic oils Filtration of train	Gearboxes			
Bearing replacement • Replacement of gearbox and hydraulic oils and coolants • Filtration of gearbox and hydraulic oils • Filtration analysis • Filtration analysis • Filtration analysis • Filtration analysis • Filtration and your • Filtration and your • Filtration coordination • Support of Port State Control MOU • Logistics • Communication agency • On-hire survey •	Installation of upgrades	•	•	
Replacement of gearbox and hydraulic oils and coolants • Filtration of gearbox and hydraulic oils • Endoscopy • Vibration analysis • Fault analysis • Fault analysis • Drive Train • Drive train check • Drive train alignment • Retrofits* • Mechanical retrofits • Electrical retrofits • Marine Coordination • Support of Port State Control MOU • Logistics • Communication agency • On-hire survey •	Replacement and fabrication of hose connections	•	•	
Filtration of gearbox and hydraulic oils•Endoscopy•Vibration analysis•Fault analysis•Fault analysis•Drive Train•Drive Train check•Drive train alignment•Retrofits*•Mechanical retrofits•Electrical retrofits•Order agreements•Harbor coordination•Support of Port State Control MOU•Logistics•Communication agency•On-hire survey•	Bearing replacement	•	•	
Endoscopy • Vibration analysis • Fault analysis • Fault analysis • Fault analysis • Drive Train • Drive Train check • Drive train alignment • Retrofits* • Mechanical retrofits • Betrofits • Marine Coordination • Support of Port State Control MOU • Logistics • Communication agency • On-hire survey •	Replacement of gearbox and hydraulic oils and coolants	•	•	
Vibration analysis Vibration analysis Vibration analysis Fault analysis Fault analysis Prive Train Drive Train Drive Train Alignment Prive train alignment	Filtration of gearbox and hydraulic oils	•	•	
Fault analysis • • Drive Train • • Drive train check • • Drive train alignment • • Retrofits* • • Mechanical retrofits • • Electrical retrofits • • Marine Coordination • • Charter agreements • • Auport of Port State Control MOU • • Logistics • • Communication agency • • On-hire survey • •	Endoscopy	•	•	
Drive Train Drive train check • Drive train alignment • Retrofits* Mechanical retrofits • Electrical retrofits • Marine Coordination • Support of Port State Control MOU • Logistics • Communication agency • On-hire survey •	Vibration analysis	•	•	
Drive train check • Drive train alignment • Drive train alignment • Retrofits* • Mechanical retrofits • Bechanical retrofits • Electrical retrofits • Marine Coordination • Charter agreements • Harbor coordination • Support of Port State Control MOU • Logistics • Communication agency • On-hire survey •	Fault analysis	•	•	
Drive train alignment Prive train alignment Prive train alignment Prive train alignment Pretrofits	Drive Train			
Retrofits* Mechanical retrofits Lectrical retrofits Electrical retrofits Marine Coordination Charter agreements Harbor coordination Support of Port State Control MOU Logistics Communication agency On-hire survey	Drive train check	•	•	
Mechanical retrofits • </td <td>Drive train alignment</td> <td>•</td> <td>•</td> <td></td>	Drive train alignment	•	•	
Electrical retrofits • </td <td>Retrofits*</td> <td></td> <td></td> <td></td>	Retrofits*			
Marine Coordination Charter agreements • Harbor coordination • Support of Port State Control MOU • Logistics • Communication agency • On-hire survey •	Mechanical retrofits	•	•	•
Charter agreements • Harbor coordination • Support of Port State Control MOU • Logistics • Communication agency • On-hire survey •	Electrical retrofits	•	•	•
Harbor coordination•Support of Port State Control MOU•Logistics•Communication agency•On-hire survey•	Marine Coordination			
Support of Port State Control MOU • Logistics • Communication agency • On-hire survey •	Charter agreements		•	
Logistics • Communication agency • On-hire survey •	Harbor coordination		•	
Communication agency • On-hire survey •	Support of Port State Control MOU		•	
On-hire survey	Logistics		•	
	Communication agency		•	
24/7 Availability •	On-hire survey		•	
	24/7 Availability		•	

Safety Inspection*

Expert inspection and maintenan
Expert inspection and maintenan treads incl. climbing protection
Expert inspection and maintenan
Expert inspection and maintenan
Expert inspection and maintenan personal protective equipment
Expert inspection including TÜV
Repairs of safety components
Installation and Commission
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 compo
Large component replaceme
Generator
Gearbox
Azimuth gears
Switchgears
Transformer
Pitch gears
Tower*
Torque check, including docume
Tower flange repair
Gap measurement of flange con
Expansion measurement of anch
Engineering
Design and development of com
Development of concepts
Quality assurance
Maintenance of main component
to manufacturer's specifications
Long-term storage of main comp
Non-destructive materials te
Dye penetration testing PT
Magnetic particle testing MT
Testing of load-bearing compone
Rotor blade in cooperation v
Maintenance
Repairs
-

ONSHORE	OFFSHORE
Untoritoria	UT I UTIUTIE

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	•	•	