

Tailored for your wind energy project

Technical Management



MAXIMIZE THE YIELD OF YOUR WIND TURBINES

As an owner or operator, you do not want any compromises: Your wind turbines should run trouble-free at all times and generate the highest possible yield. Reliability is the top priority for the profitability of your investment.

That's why you should opt for Deutsche WindGuard's independent Technical Management. Because we guarantee:

- optimal monitoring of your wind turbines
- 24 hours a day, seven days a week, 365 days a year
- for the best possible availability and performance, low downtime and maximum yield.

Our control centre keeps an eye on your wind farm day and night and provides immediate support in the event of a malfunction to return your turbine back to normal operation as quickly as possible.

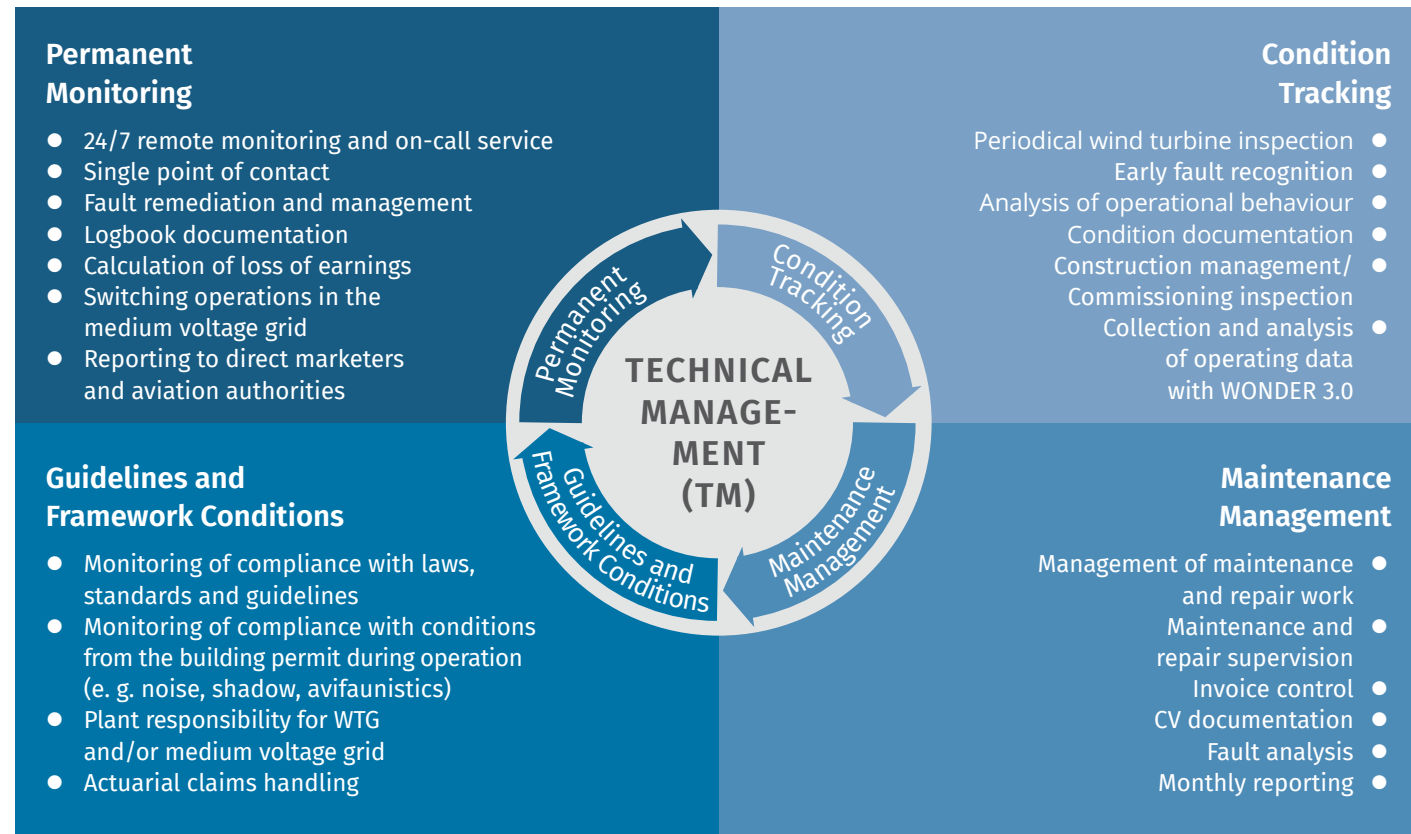
Place the plant responsibility in our experienced hands.

Wind farm owners bear a lot of responsibility. To ensure that this does not become a cause for concern for you, Deutsche WindGuard is at your side as your experienced partner.

On request, our Technical Management team takes over a number of your duties as an owner and relieves you, for example, with regard to:

- the guarantee of occupational safety
- requirements of the electricity industry for the safe operation of your wind turbine
- the importance of your wind turbine as part of the critical infrastructure
- compliance with environmental and species protection requirements.

With us, your wind farm is in the best hands. Profit from both our know-how and our many years of experience.



OUR EXPERIENCE IS YOUR BENEFIT

In 2000, Deutsche WindGuard was one of the first providers to launch the concept of manufacturer-independent monitoring and condition-based Technical Management of wind farms. That makes us pioneers in this field.

Our many years of experience, combined with extensive expertise in all specialist areas of Technical Management, currently convince owners of more than 370 wind turbines in over 80 wind farms with a

total capacity exceeding 910 MW. These include turbines with outputs between 600 and 7,500 kW from the following manufacturers:

- AREVA/Multibrid
- Enercon
- Fuhrländer
- Gamesa
- GE
- Nordex
- PowerWind
- Siemens/AN Bonus
- Senvion/REpower
- Vestas



TM PACKAGES – TAYLORED TO YOUR NEEDS

Whether you are a citizens' energy cooperative or an agricultural business, an energy supplier, project developer or investor – just as diverse as our customers are, so are the requirements for the technical management of their wind farms. To ensure that you receive exactly the Technical Management that suits your needs, we have put together three service packages with different scopes of services for you. You may choose from the following options:

BASIC

The BASIC package focuses, among other things, on the 24/7 monitoring of your wind turbines, the relevant reports to the direct marketer and the collection of operational data.

Benefit from our single point of contact principle: A WindGuard team of experts is available for you individually and knows all the details of your wind farm.

With the BASIC package, you secure your own scope of involvement and the opportunity to contribute your own know-how and experience.

COMFORT

The COMFORT package includes the BASIC scope by default and is supplemented by additional services. These include wind turbine inspections, assumption of plant responsibility (in accordance with FGW TR 7 A1 and DIN VDE 0105-100) and analysis of the operational behaviour.

This interesting and balanced range of services is particularly suitable for wind farm owners who wish to place day-to-day operation in experienced hands, but prefer taking over tasks within the permit procedure themselves.

PREMIUM

For those who wish the most comprehensive Technical Management for their wind farm, we have developed the PREMIUM package. It includes all services of the COMFORT package by default.

In addition, we handle your communication with approval authorities. We also offer you an extended analysis of the operational behaviour of your wind turbine and associated recommendations for action.

With Deutsche WindGuard's PREMIUM package, you ensure the optimal operation of your asset.

ADDITIONAL OPTIONS

Our additional options offer you even more flexibility. They can be added to any of our three Technical Management packages BASIC, COMFORT or PREMIUM. This allows you to respond optimally to park- or situation-specific requirements – for an even more individual Technical Management.

The service comparison of the three WindGuard TM packages is shown at the bottom of this page.

You will find an overview of the individually bookable additional options on the last page of this brochure.

The following table provides a direct comparison of services in the three WindGuard Technical Management packages. An overview of individually bookable additional options is available on the last page of this brochure.

SERVICES		BASIC	COMFORT	PREMIUM
B.01	24/7 remote monitoring and on-call service	●	●	●
B.02	Single point of contact	●	●	●
B.03	Reporting services	●	●	●
B.04	Collection of operational data	●	●	●
B.05	Logbook documentation	●	●	●
B.06	Monthly reporting → short reports	●	●	●
C.01	Data/remote surveillance connection → initiating recovery of data connection		●	●
C.02	Monthly reporting → detailed reports		●	●
C.03	Trouble-shooting and -management → remote		●	●
C.04	Maintenance and repair management → maintenance and repair supervision		●	●
C.05	Invoice control		●	●
C.06	Periodical wind turbine inspection → annually		●	●
C.07	Yield loss calculation and availability guarantee → permit-relevant shutdowns and availability		●	●
C.08	Analysis of operating behaviour and performance → operating behaviour		●	●
C.09	Plant responsibility for the WTG		●	●
C.10	Monitoring of guidelines and framework → guideline tracking		●	●
C.11	Monitoring of safety and condition-based inspections		●	●
C.12	Communication management → communication with stakeholders		●	●
P.01	Periodical wind turbine inspection → semi-annually			●
P.02	Yield loss calculation and availability guarantee → availability guarantee (bonus/malus)			●
P.03	Analysis of operating behaviour and performance → power curve			●
P.04	Monitoring of guidelines and framework → communication with authorities			●
P.05	Participation in advisory board and shareholders' meetings			●

ADDITIONAL OPTIONS		INDIVIDUALLY BOOKABLE
A.01	Data/remote surveillance connection → repair of data connection	●
A.02	Trouble-shooting and -management → including on-site deployment	●
A.03	Maintenance and repair management → organisation and monitoring of additional work on site	●
A.04	Assistance with actuarial claims handling	●
A.05	Periodical on-site wind turbine inspection → frequency of inspections according to agreement	●
A.06	Yield loss calculation and availability guarantee → redispatch	●
A.07	Analysis of operating behaviour and performance → evaluation/analysis of performance	●
A.08	Monitoring of guidelines/framework → assessment of avifauna shutdowns according to BImSchG*	●
A.09	Monitoring of guidelines/framework → monitoring of compensation measures according to BImSchG*	●
A.10	Compilation of risk assessments, operating instructions and emergency plans	●
A.11	Switching operations in the medium-voltage grid	●
A.12	Plant responsibility medium-voltage grid	●
A.13	Support for transformer station (commissioning of third parties)	●
A.14	Visual wind farm check	●
A.15	Seeking local wind farm support and service providers	●
A.16	Construction management	●
A.17	Commissioning inspection	●
A.18	Test operation	●

* Immission Control Act permits

OUR QUALITY PROMISE

ALWAYS UP TO DATE

Benefit from the high-quality standards we set for ourselves and our services.

In order to provide optimum support for your wind farm, our Technical Management team always keeps up to date with the latest technology through regular training.

ALWAYS SAFE

At Deutsche WindGuard, we attach just as much importance to the safety of our employees. Thus, in addition to regular medical examinations, the annual height rescue training and the first aid course every two years are on the regular agenda for the Technical Management team.

ALWAYS NETWORKED

As a member of the technical managers advisory board of the German Wind Energy Association (BWE), we participate in the central, unbiased and manufacturer-independent exchange of ideas on all important topics related to the operation of wind farms and are actively involved in the work on guidelines and standards.

ALWAYS NEXT TO YOU

With our headquarters in Varel, Lower Saxony, locations in Hessen and Mecklenburg-Western Pomerania and a steadily growing, decentralized cooperation network throughout Germany and its neighbouring countries, we are always close to you and can be on site quickly if necessary.



Betriebsführerbeirat



Anerkanntes Beiratsmitglied

With us, your wind turbines are optimally safeguarded. In 2022, we were one of the first providers of Technical Management for wind farms to prove to the Federal Office for Information Security (BSI) that our 24/7 control centre meets the requirements for operators of critical infrastructures (KRITIS) in accordance with § 8a of the BSI Act.

Our Technical Management follows the rules of condition-based maintenance of the German Wind Energy Association based on the DIN 31051 guideline.

Our occupational health and safety management system is certified according to ISO 45001.

**DEUTSCHE
WINDGUARD**

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