

Situation for wind farm operators

! STRUCTURAL DAMAGE

Lightning strikes, birds or extreme loads have an impact on the structural integrity of the blade, which may go unnoticed and is hard to quantify.

! SLOW DEGRADATION

Components of the rotor deteriorate over time and negatively affect the overall behavior of the turbine. This may only be picked up on when it is too late.

! MAINTENANCE WORK

Current fixed-period preventive service intervals artificially increase turbine downtime and reduce annual energy yield.

Features of Turbine Integrity Control

With Turbine Integrity Control, we provide a sensitive detection system for acute blade damage and a reliable monitoring and prediction of slow degradation.

Benefit for wind farm operators

+ DAMAGE DETECTION

Quantifies the impact of sudden damage, triggers fail-safe operation, and avoids costly fatal accidents.

+ DEGRADATION MONITORING

Turbine wear is tracked over time and alarm thresholds are set for early damage detection and to avoid fatal loss.

+ OPTIMIZED MAINTENANCE

Improved predictive maintenance and repair planning increase turbine uptime and annual energy production.

Case Study

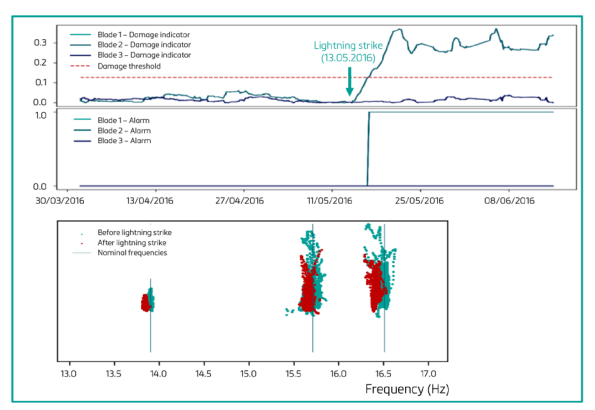
Indication of initial structural damage.

Tracking of the damage development.

Initiation of the repair before the damage becomes irreversible.

Costs for a blade change after severe damage: 300 kEur.

Cost of repairing the damage at an early stage: 15 kEur.



Achieved optimizations

AVOIDANCE OF PRE-MATURE BREAKDOWN

OPEX

CAPEX

RISK REDUCTION

Get in touch >

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fos4X
rotor blade sensing