

# MAXIMIZE PRODUCTION

## WITH CEKO SENSORS BLADE MONITORING

SAVINGS POTENTIAL  
**20.000 €**  
PER YEAR

Blade monitoring and alarm system using state-of-the-art microsensor technology. Safe and durable and 100% metal-free.

- Increase operational time
- Reduce maintenance costs
- Improved safety
- Optimize production
- Increase time between service



# S-DAS™

Blade Monitoring System

DATA PRE-PROCESSING  
UPLINK TO CLOUD  
IP67 RATED & SOLID STATE  
HIGH SPEED ACQUISITION  
WI-FI, MOBILE AND ETHERNET  
30X20X15 CM3

# S-DAS™

## Blade Monitoring System

Metal-free MEMS vibration sensor mounted on the inside of the blade

OA1

OA1

UPLINK

OA1

OA1

Data acquisition and cloud up-link

OA1

Optical fiber

OA1

## Break-even in days

Loss of production is a fact of life for wind turbines, whether caused by scheduled service, ice on the blades, erosion or acute failures. Blades rotate at high speeds, in all weather conditions and experience high wear and tear causing blade failures, extended service and down time.

The CEKO blade monitoring solution keeps an eye on the blades 24/7 so that production time is maximised and service limited to the bare minimum.

Take a 3 MW wind turbine as an example\*. A basic blade monitoring solution costs only 5,500 € and is sound business if it gives just 4 days of extra production time in the wind turbine's 20 year life time.

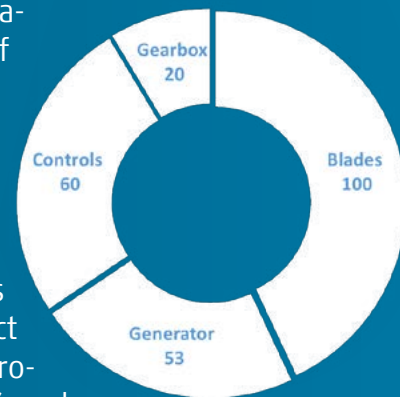
**Less maintenance and costly repairs**  
**More uptime and higher efficiency**

## Protect your investment

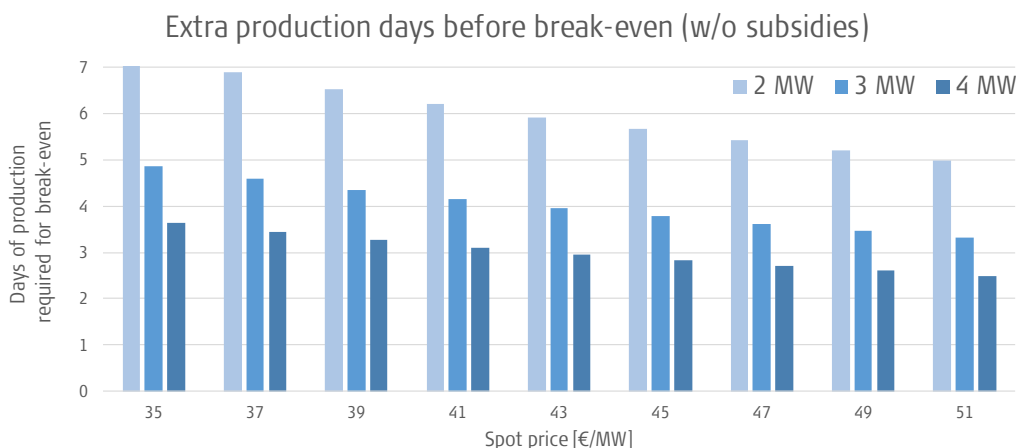
An average insurance claim on wind turbine blades amounts to 240,000 USD. With blades handling megawatts of energy makes undetected blade failures a high way to catastrophic break-down.

Ice on blades is not just a safety concern, but also has a direct and negative impact on production. Ice causes production loss of up to 50% and often a complete shut down.

DOWNTIME INDEX  
INDEX<sub>100</sub> = BLADES



**Production losses due to ice on blades can exceed 7% of annual energy production.**



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\*Calculations based on a 45% WTG capacity factor and the average Nord Pool spot price in 2018