To ensure the success of your wind farm project, we provide a range of services to support you at every phase of the project life cycle – from site selection, design and manufacturing, right through to operation.

Independent assessment for LifeTime Extension of wind turbines

- After 20 years of operation, the structural and functional integrity of wind plants must be re-examined according to the regulations of the DIBt Guideline. The procedure combines on-site inspections with an analytical assessment.

- Inspections are based on the „Inspection principles for condition-based maintenance of wind turbines“ standard issued by Bundesverband Windenergie e.V. (BWE).

- Assessment is required for each wind turbine individually.

Our experience - your benefit

The instructions of the German Institute for Building Technologies DIBt require an analysis of turbines selected to continue operation even after their nominal life time of 20 years.

Legally-binding inspections conducted by a professional inspection service provider help rule out doubts surrounding the structural integrity of older turbines.

Before you shut down, upgrade or sell your wind turbine, take advantage of TÜV Rheinland expertise to determine if a Life Time Extension is feasible for your plant.

www.tuv.com/wind
LifeTime Extension assessment is the synthesis of on-site inspections and analytical works.

**On-Site Inspections**
On-site inspections are conducted to assess the actual status of your wind turbine. Basic examinations include the following components and systems:
- Tower & foundation
- Main frame & drive train
- Bolted connections
- Hub & rotor blades

Results of the basic examination may demand further inspections such as:
- Video endoscopy
- Vibration analysis

**Analytical Works**
Analyzing calculations with input from various sources:
- Operation hours and modes (load levels) / produced energy
- Extreme and medium wind speeds
- Effective intensity of turbulences
- Maintenance log books
- Inspection reports

Inspections results and analytical works findings are presented in an expert statement assessing the possibilities of continued operation. Life Time Extension recommendations can be contingent upon restrictions such as limited loads or plant upgrades.

In cases where continued operation of your wind turbine is not to be considered, TÜV Rheinland can offer the following alternatives:

**Sale**
A due diligence conducted by highly-skilled TÜV Rheinland staff allows both buyer and seller to confidently negotiate an acquisition on the basis of a neutral plant assessment.

**Shut Down**
TÜV Rheinland provides comprehensive support according to the relevant rules and regulations when decommissioning your wind turbine.

**Repowering**
Experienced TÜV Rheinland consultants provide you with valuable advice when replacing old turbines in repowering situations. Let us assist you throughout the planning and permit process up to the commissioning and operation of new turbines.

**About TÜV Rheinland**
Founded more than 140 years ago, TÜV Rheinland is a global leader in independent inspection and certification services, ensuring quality and safety for people, the environment, and technology in nearly all aspects of life. The Group maintains a presence at around 500 locations in 65 countries with nearly 20,000 employees.

**Always a good sign. The TÜV Rheinland test mark.**
This mark stands for all the relevant customer information about products, services and systems that are tested, certified or inspected by TÜV Rheinland.
This information is available online anytime, anywhere, and can be viewed in a matter of seconds at the click of a button. This means optimal transparency and top performance in terms of safety, quality and reliability – always. Global, systematic and eye-catching – communicated through a unique and multi-functional mark. The TÜV Rheinland test mark.