

8.2 | The Experts in Renewable Energy

Wind Energy
Photovoltaic Energy
Combined Heat and Power Generation (CHP)
Grid Integration
Quality, Health, Safety & Environment

8.2 DIRECT-DRONE – Inspections Thought One Step Further

Inspections of Wind and Solar Plants by Drones

Wind energy plants are reaching ever greater heights, rotor blades are getting longer and longer – this is where drone technology can contribute decisively to inspection.

Since the beginning of the commercial use of wind energy, the trend has been towards ever taller towers and longer rotor blades on wind turbines. Hub heights of 150 m and rotor diameters beyond 160 m are no longer uncommon. As a result, the inspection of these wind turbines will become more and more complex and time-consuming. This is where highly developed technologies such as drone technology come in to speed up the processes and provide the inspector with another inspection tool.

Supported by the right software, drones are already capable of providing fully automated inspection solutions for wind and solar plants. With 8.2 DIRECT-DRONE, experienced experts carry out the aerial survey and can thus focus on conspicuous features directly on site and generate additional image material if required. Aerial survey and inspection are carried out from a single source – with the best qualifications and the highest quality.

Further or supplementary examinations (e.g. rotor blade interior inspections or inspections of bolted connections) can be carried out with 8.2 DIRECT-DRONE directly during drone inspection. For larger wind farms where only random inspections are to be carried out using rope access technology, our experts can use 8.2 DIRECT-DRONE to create an optimal turbine selection and, on this basis, start directly with inspections using rope access technology.

During follow-up inspections, these data form the basis for scheduling the first occurrence of damage, narrowing down the cause in more detail, and documenting the progression of damage. With the knowledge resulting from over 65,000 technical inspections of wind turbines, the software is being expanded continually and is being improved with each new inspection experience. You can benefit from this expert knowledge.



Our Services

We use applied drone technology in addition to our classic inspection services in the area of rotor blade and tower inspection for wind turbines or in the solar sector.

8.2 DIRECT-DRONE – Inspection and Assessment from a Single Source:

- Inspection of your wind and solar energy plants by means of remote optical inspection with the latest technology
- Effective and detailed inspection of hard-to-reach areas (rotor blades and towers of wind turbines, solar energy plants)
- "One-stop shop": data collection and evaluation effected directly by our experienced 8.2 experts
- On-site data collection adapted as needed and precisely targeted thanks to the extensive practical experience of 8.2 experts with the components to be inspected

- High-quality and complete inspection results with precise recommendations for action
- If required, immediate and precise decision-making for the initiation of immediate measures (e. g. for damage analysis after accidents)
- Combination and addition with other inspection methods possible through the complete range of services offered by the 8.2 Group (rope access technology, internal rotor blade inspection, ...)

Do you have any questions about your inspection project? Contact us – we will be happy to advise you.

About us

The 8.2 Group e.V. brings together experts with decades of experience and young thinkers committed to the sustainable value of renewable energy projects. For On- and Off-shore wind, solar, biogas, grid integration and QHSE, the 8.2 network offers a comprehensive range of technical consulting services and inspections with independent expertise.

From initial tendering and quality assurance to assessment and testing for continued operation, our services cover the entire project lifecycle of renewable energy projects. The generated expertise of over 25 years is based on approximately 65,000 wind turbine inspections, 20,000 MW Due Diligence projects On- and Offshore as well as solar projects. In addition, the 8.2 Group e.V. has been involved in almost all German offshore wind projects from the very beginning.

As a client, you will benefit from this unique wealth of experience – our advanced knowledge and an assured quality level of our work for your plant!

8.2 in Numbers:



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