# OperationExposé

ENERTRAG

### ENERTRAG OPERATION

Your competent partner for technical management and inspections and tests throughout Europe.

RTBAG

TRAG

Deration

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### **ENERTRAG** Portrait

#### Energy system management - on site every day for over 30 years

With over three decades of experience in wind energy, we are your partner for the technical management and inspection of renewable energy systems. Our comprehensive portfolio ranges from services in the balancing energy market and innovative hybrid power plants to photovoltaic systems and stationary battery storage systems. At six locations, our teams of experts ensure the safe and economical operation of more than 1,200 renewable energy plants - reliably, sustainably and with an eye to the future.

#### Valuable synergies for customers

We DIC

and

DEVELOPMENT	OPERATION	POWERSYSTEM	SERVICE	TECHNOLOGY	
ho plans wins	Runs like a charm	Let the data speak	It's moving forward	Building a better bulb	
e successfully plan ojects with foresight nd close to the people.	We ensure the safe and successful operation of renewable energy systems.	We automate processes, monitor, control and network energy systems and substations substati- ons - precisely and to the minute.	We reliably maintain photovoltaic and wind energy systems reliably and solve problems - quickly and easily.	We equip wind turbines with intelligent flight safety identification.	
SINCE :	INSPECTIONS	DRONE INSPECTIO	ON   🖌	DAUERTHAL	×170
1992	IN COOPERATION WITH:	IN COOPERATION WITH:		BERLIN EDEMISSEN	>120 EMPLOYEES
	UL SERVICES	SULZER		HAMBURG DURY (F) NEUVILLE (F)	
	<ul> <li>&gt; INSPECTIONS &amp; CHECKS</li> <li>&gt; TECHNICAL MANAGEMENT</li> </ul>	ACCREDITED DIN EN ISO 1703		800 ECTIONS PER	CERTIFIED DIN EN ISO 9001:2015



Michael Dahm Managing director ENERTRAG Operation

> WITH FOCUS ON POWER-TO-X, STORAGE SOLUTIONS,



2,7 gw **Facilities** monitored

CONCEPTS



### Technical management

#### Your benefits at a glance

Our control centers not only monitor renewable energy systems in real time, but also respond immediately in the event of faults - 95% of all

processes are processed after just a few minutes. Thanks to the VERA robot control room, you also benefit from response times that are well below the contractual requirements. Thanks to our continuous monitoring, we guarantee maximum

energy availability as if we were always on site. Benefit from our knowledge of the many different types of systems: We combine expertise

from different specialist departments to create the greatest possible synergies for you. This allows you to benefit from holistic yet focused operational management. We have specialized teams for customized solutions. This ensures

that we can both maintain an overview and set thematic priorities that are transparent and comprehensible for everyone.

#### For the areas

- > wind energy
- > photovoltaics
- > battery storage
- > transformer stations
- > biogas
- > power-2-X
- > hydrogen

#### Flexible and customised

- > Experienced network: customised solutions solutions through bundled expertise.
- > Efficient operational management: optimisation of your renewable energy systems for maximum performance.
- > Reliable damage assessment: fast and well-founded protocols and reports in the event of damage.
- > Continued operation: maximising the efficiency and maximising the efficiency and service life of your old systems.

### **POWERSYSTEM**

Let the data speak

### THE PROFESSIONAL HARDWARE AND SOFTWARE SOLUTION FOR RENEWABLE ENERGIES

#### ENERTRAG POWERSYSTEM

- Optimised operation and networking of renewable energy systems
- For plant managers, operators, asset managers, direct marketers, transformer station operators
- > Automated condition monitoring, e.g. BImSchG
- Certified according to ISO 9001:2015 and ISO/IEC 27001
   suitable for the operation of critical infrastructures
- according to KritisV
- > High data quality thanks to the control of our data stream control centre

### TECHNICAL MANAGEMENT, SAFETY CHECKS AND INSPECTION BODY

Operation

#### **ENERTRAG Operation**

Technical management, inspections and testing of all renewable energy plants

- Technical management, inspections and tests for wind/solar parks, biogas plants and battery storage systems
- > Our processes are regularly improved through internal audits and checked through external audits by the German Accreditation Body to maintain accreditation in accordance with DIN EN ISO IEC 17020:2012.
- > Certification in accordance with DIN ISO 9001

### Inspections and checks

#### Impartial seal of quality

You can rely on our renewable expertise, which is underlined by accreditation in accordance with DIN EN ISO /IEC 17020:2012\*. The advantage of an accredited inspection body: once tested, accepted everywhere. This gives you the certainty that reports and protocols will be recognised by the authorities and insurance companies without any problems. Our team works with stateof-the-art technology and innovative methods to provide the best possible support for your systems. We ensure that your systems are operated safely and efficiently.

#### We offer

- > Post commissioning Inspection
- > End of warranty Inspection
- > Safety checks
- > Object-orientated risk assessment
- > Condition-based maintenance Inspection
- > 20 year lifetime extension verification (Inspection and Analysis)
- > Inspection of rotor blades (also with drones)
- > Inspection of gearbox
- > Electrical checks
- > Periodic inspection

\*DIN EN ISO/IEC 17020 accreditation from the German Inspection Body (DAkkS) which covers the specifications contained in attachment D-IS-18273-01-00 to the accreditation.

#### Experience flying precision

Our drones meet all the requirements of the BWE guideline for lightning protection tests. With our technology, we can ensure that your wind turbines meet the highest safety standards and are optimally protected against lightning strikes. Equipped with state-of-the-art cameras, we deliver razorsharp images of your rotor blades. These precise images enable a detailed inspection and documentation of the condition of your turbines.

Through regular inspections and the use of advanced analysis tools, we can closely monitor the development of damage to your rotor blades. This allows us to intervene at an early stage and plan repairs before major damage occurs. Every minute your turbine spins means a contribution to your financial success.

#### Your safety is important to us

Experience and expertise from over 4,800 inspections a year, combined with our new focus on safety technology, enable us to offer you a comprehensive solution.

Focus on prevention: Our dedicated teams not only take care of the prescribed inspections, but also offer comprehensive safety solutions. From crane and lift inspections to inspections of fixed ladders and the replacement of fire extinguishers - we are your reliable partner for the highest safety standards.





## Our locations

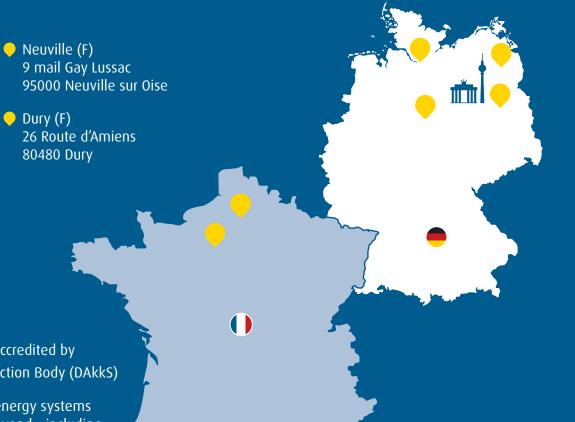
Dauerthal
 Gut Dauerthal
 17291 Dauerthal

- Berlin
   Friedrichstraße 152
   10117 Berlin
- Edemissen
   Eddesser Straße 8
   31234 Edemissen

Hamburg
 Trostbrücke 1
 20457 Hamburg

 At these locations we are accredited by accredited by German Inspection Body (DAkkS)

We reliably look after your energy systems throughout Germany and beyond - including in France and Poland - reliably look after your energy systems.



#### Kontakt

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Certified to ISO 9001:2015 quality management