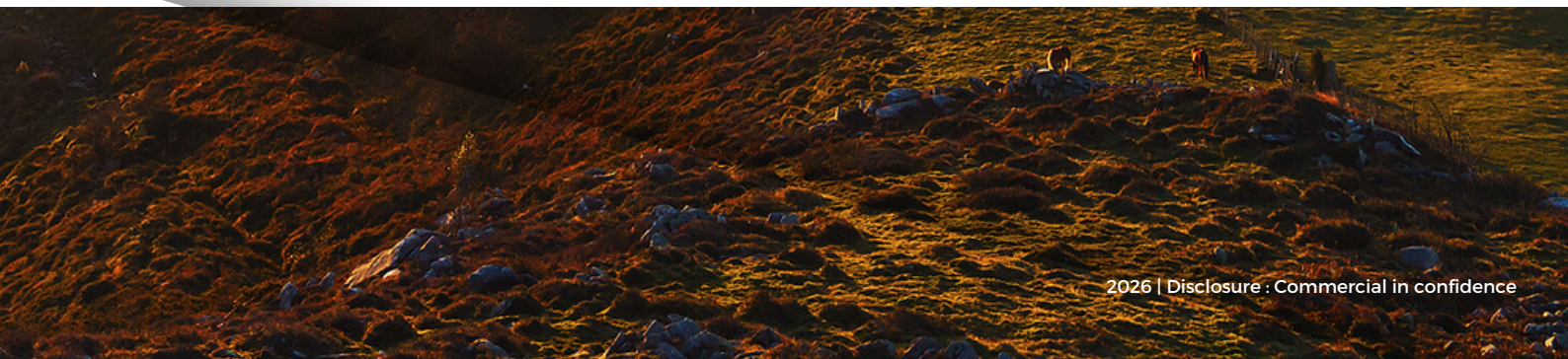




TECHNICAL AUDIT SERVICES (TAS)

Helping you maximise the potential of your asset





Technical Audits & Inspections

Assessing the condition of your equipment

We carry out this type of audits at different stages in the lifecycle of your assets :

- at the end of the warranty period,
- at the end of a maintenance contract (for contract renewal or change of service provider),
- or upon simple request.

During these audits, we can also carry out :

WIND

- Video-endoscopy of gearbox using GE mentor Visual IQ or similar
- Video-endoscopy of generator using GE mentor Visual IQ or similar
- Generator electrical tests
- Vibration analysis of drive trains / Rotor Imbalance
- Pitch angle verification / 0° Blade angle verification
- Blade inspections from the ground or by drones, LPS measurement
- Generator laser alignment control
- Tower, hub and nacelle inspection with tests of the different systems (pumps, automatic greasers, cooling systems...)
- Tower bolt tightening checks (tapping), paint thickness inspection and tower base earth resistance measurement
- Auxiliary system inspections
- Lubricants sampling & analysis (gearboxes, hydraulic groups, transformers, main bearings, blades and coolant fluid)
- Data Analysis

Since 2019, we can intervene independently (without the support of the manufacturer) on a majority of wind turbines (Vestas, Nordex, Siemens-Gamesa, Enercon, GE, etc.)

We have experience working on both small-scale wind turbines and the latest generation models such as Eventus (Vestas), Cypress (GE), and others.

SOLAR

- Thermography of photovoltaic modules by drones and electronic components
- Building or supporting equipment inspection
- Performance control of the solar panels

FOR ALL YOUR ASSETS

- Delivery substation, access roads and platforms
- We carefully assess all specific requests to deliver the most appropriate solution.

2

Commissioning & Take-Over

Moving your asset into operations

- Documentary review (FCW, ARMMF)
- Components' delivery inspections on site before erection
- Run-tests analysis
- Complete visual inspection
- Acceptance & take-over certificate
- Establishment of punch list and follow-up until their resolution

3

Condition Monitoring (CMS)

Preventing breakdown & downtimes

After an incident:

- Root cause investigation and analysis
- Inspection of the remaining assets to ensure no further components are affected
- Preparation of documentation for the authorities, if necessary

Wind turbine lifetime extension:

- On-site inspections, including visual checks, vibration measurements, and video endoscopy
- Review of historical maintenance and operational records
- Fatigue load calculations based on site-specific conditions

4

Regulatory H&S Audit

Complying with your obligations

- H&S due-diligence & site inventory
- Technical recommendations
- Actions follow-up
- Assistance for compliance
- Training courses (working at heights, electrical)
- Procurement of regulatory safety signs & gears

WPO's expertise

WPO is Europe's largest independent renewable energy asset management company, boasting a **portfolio of over 11 GW** across 16 countries.

Our TAS team has a **combined experience of over 40 years** in the renewable energy industry, so far carrying out operations across 17 European countries.

Inspection stats over the past 5 years

- **1,400+** Visual inspections (+4,000 MW) under technical audits
- **640+** Visual inspections per year under technical management contracts
- **520+** Video endoscopies (+1,400 MW)
- **490+** Blade inspections
- **170+** Generator electrical tests

