



Wind Turbine Inspection

Using Unmanned Aerial Vehicles (UAV) Drones

- World leaders in aerial inspection, renewable energy and asset management
- Experienced UAV pilots with more than 2,000 blades inspected across Europe and North America
- Qualified and Experienced:
 - Aviation Experts
 - Wind Turbine Engineers
 - Asset Managers
 - Software Developers

More than 2,000 blades inspected





CEV Canada proved the possibility of detecting very small damages on the blades by the use of UAV.

- Drain holes
- Lay up bonding
- Check for internal cracking and delamination
- Check for bond quality and fiberglass makeup



Drone Inspection Advantages

✓ **OFFSHORE and ONSHORE**

Our expert pilots have proven track record to operate in large waves, strong wind, snow and high temperatures

✓ **SAFETY**

Compared to traditional turbine inspection methods, UAV drones provide safety for the operators and thus less risk for the owner

✓ **DOWNTIME & COST SAVING**

UAV drones reduce the turbine down time to less than one hour

✓ **ANALYSIS & REPORTING**

At the end of each inspection project, the client is provided with a thorough report on its wind turbine assets

Technical Specifications

✓ DRONES

Drones fully equipped with sensors and safety devices

✓ IMAGE QUALITY

Images of up to 55MP and 640px thermal vision sensors

✓ WEATHER CONDITIONS

Our operators work in the most extreme climates with up to 60km/h wind speed, 5m waves, extreme temperatures, fog and snow

✓ INSPECTION TIME

Unparalleled inspection speed of less than 5 minutes flight time for a 45m blade inspection.

✓ REPORTING

Get instant highlight reports of your WTG status followed by a state-of-the-art 360deg report

Our UAV Inspection Cycle

Visual Report

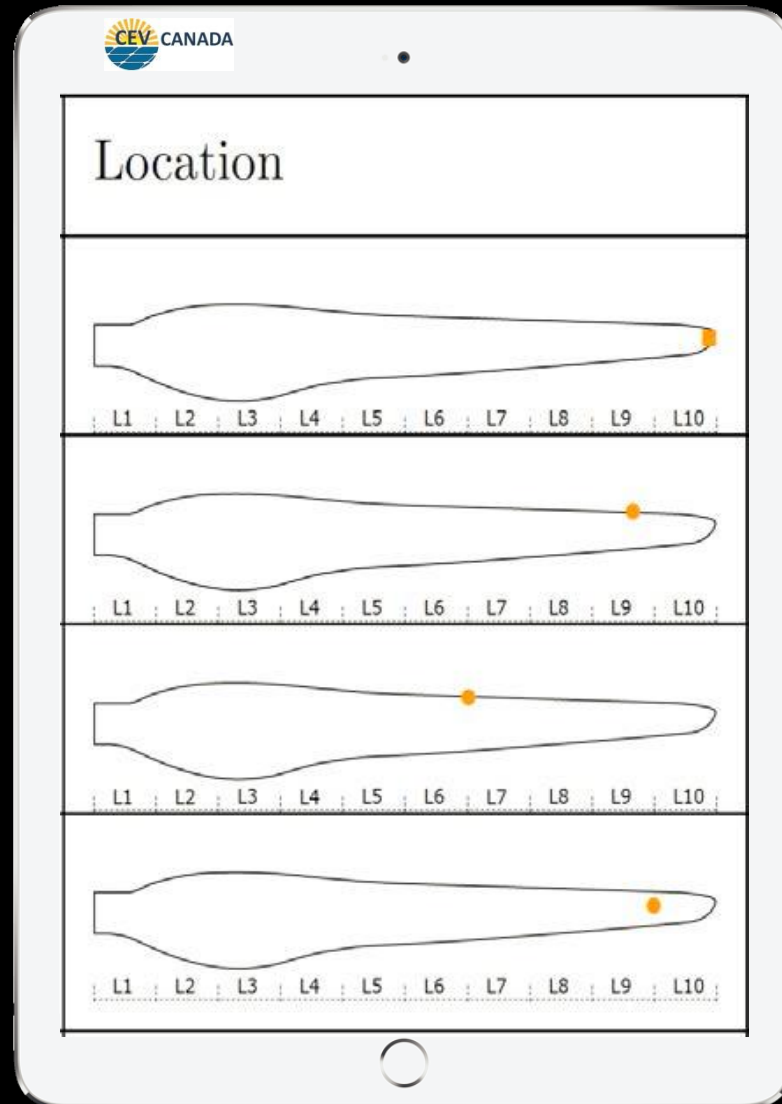
Custom detailed, easy to understand, visual report for each inspection.

Detailed Record

Detailed record of WTG state (blades, hub, nacelle, foundation)

Defect Detection

Computer assisted defect detection reduces analysis time



Analysis

Consistent analysis across all WTG assets. Location And severity of every defect.

Maintenance Tips

Maintenance actions with actionable maintenance codes for CMMS software.

Defects Effects Analysis

Analysis of defect effect on WTG performance (e.g. %AEP reduction)



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