

Case study

Quick and reliable EoW reports via ONYX Insight's Wind inspection App fieldPRO



End of Warranty Campaign



The only wind-specific inspection app



Collect clean field data first time



Stay in control of field operations at your desk



Mitigate safety risks



Empower field teams with O&M



Maintenance, Managed

The end of warranty period typically takes place at the end of the initial service and warranty agreement for a new wind farm.

It is a crucial stage when it pays for owner/operators to be aware of everything that's happening with their components, to be able to prioritise and extend the future design life of their turbines.

It's therefore important to ensure that maintenance has been performed properly.

The Big Data Challenge

Large owners may have several wind farms to inspect each year - a big data challenge. For example, 250 turbines, with 300 inspection points each, makes 75,000 data points.

Many of these will have a photo attached to it: a grease leak, a missing blade stud, or melted cooling fan. Each point will have a severity rating and often a comment and recommendation.

Without a standard tracking tool, this data can easily be lost and misplaced with no simple way to track each component. Technicians can inconsistently determine failure modes and the severities of each failure mode.

Additionally, the language used to describe each failure mode can be inconsistent which can have legal connotations for example, broken v requires maintenance.

And without a software platform, data can be extremely difficult to organize and prioritize after inspections are completed. **The big data challenge can be extremely time consuming** to organize into excel or similar tool.



Figure 1: Level 4 hose damage noted on turbine pitch bearing.



The Solution

ONYX is often contracted at the end of the warranty stage to support the delivery of final reports containing information on turbine component condition, extract specific failure modes, and the severity and status of the repair.

Using its wind-specific mobile and web inspection app fieldPRO, ONYX can track and organize deliverables to the customer. fieldPRO enables field services to quickly collect information, and observations on turbines to inform future O&M decisions. Connecting the dots, it allows simple and bespoke categorization of inspections per customer setup, tracking images, comments, and past data to give a clear status of components.

With fieldPRO, all observations can be easily filtered, ranked, and exported to be actioned by Operations personnel. Owners/operators can create checklist items, allowing multiple technicians to work on multiple components on the same turbine at the same time.

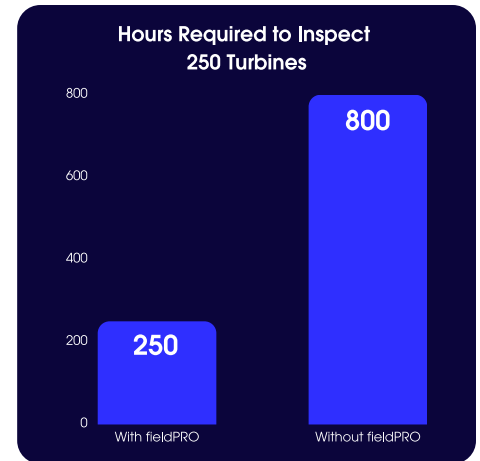


Figure 2: Inspection timeline comparison

Benefits

- 1** From basic pen and paper to digital in minutes. fieldPRO can save significant time recording inspection data. Consolidating data in one standard tool means reports can be generated by our mobiles, instantly.
- 2** Reduce the time taken to complete the inspections by 3 hours per turbine if working by hand previously.
- 3** fieldPRO delivers priority fixes, which can then be sent to the OEM. This includes looking back on their old reports in the event of a failure to verify initial condition post-install, maintenance, or repair in addition to all images of components (as needed) sorted for easy reference for claims back to the OEM and also make comparisons across other portfolios.
- 4** Better collaboration and communication across engineering teams, with an instant view and status of components for more efficient O&M.

Go digital without the pain

Developed by ONYX Insight, fieldPRO is a mobile and web, cloud-based inspection and service tool that maximises the safety and efficiency of rotating machinery and equipment inspections.

With ONYX Insight's engineering expertise built in, it makes the transition from **pen and paper to digital** recording easy, opening the door to a fully digitalised O&M approach.

