

# Wind Turbine / Powerline Inspection

The inspection of a complex asset, such as a wind turbine or powerline, has traditionally been extremely labour-intensive and time-consuming. Now, however, inspection of these difficult-to-access assets no longer needs to turn into slow, expensive and cumbersome projects as the use of modern technology allows for fast and easy visual inspections.



## THE Applus+ SOLUTION

Applus+ can provide comprehensive powerline and wind turbine inspections through the use of UAV aerial drone technology. We have developed a highly structured yet scalable approach to both powerline and wind turbine inspections, ensuring that the client receives all the critical data required. Each client has different needs and the process is highly scalable to suit the level of detail required.

UAV aerial inspections are ideal for regular, routine condition assessments because they do not require large amounts of time, crew or resources. A typical UAV inspection involves a three-man team with a single UAV.

Ground-access issues and working-at-height risks are almost eliminated when utilising UAV aerial inspections as the operating crew never leave the ground and do not need to be located at the base of the asset.

Applus+ uses the very best professional-grade camera and lens combinations, resulting in extremely detailed colour photography and thermal imagery. Our data-compilation methods are highly structured, yet easy-to-understand, ensuring that the hundreds of datapoints collected during an asset inspection remain in perspective and can be used by customers and field technicians when repair work is required.

Applus+ uses purpose-built vehicles to allow for continuous UAV inspections while following a feeder or working throughout a wind-turbine farm. These vehicles allow for

continuous UAV flight-battery charging, incorporate a data-storage hub and act as a portable UAV ground station, with built-in screens for video feeds and telemetry.

## Target customers

These high-tech UAV services are ideal both for assessing close visual detail and for providing general condition overviews of assets, such as power networks and wind turbines.

## Key customer benefits

This new remote-access method used by Applus+ allows for fast, efficient and safe inspections while generating extremely high-quality data.

UAV inspections do not require large amounts of crew or equipment as the UAV does the majority of the work. A small UAV crew are able to capture every external aspect of an asset in a fraction of the time of the more cumbersome traditional methods thanks to minimal set-up time and fast, yet detailed, inspection processes.

UAV inspections completely eliminate working-at-heights risks because their inspection crews never leave the ground. Work crews do not even need to get to the base of each structure as the UAV can be flown in from a distance as long as a visual line of sight is maintained.

The image quality from the Applus+ UAV is the best available. We use only the very best professional-grade, full-frame cameras and ultra-sharp lenses to ensure even the finest of details are clearly visible.