

An Aerial Inspector

An Iberdrola wind park serves as the test grounds for an aircraft created by a Salamanca-based firm that saves costs and reduces the time required to inspect wind turbines

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The “Aracnocóptero”, the robotized aircraft created by the Salamanca-based firm, Arbórea, is now being used for wind turbine blade inspection, thanks to Iberdrola’s strong backing of the technology. It will reduce wind turbine blade inspection time, and therefore lead to cost savings, according to the regional head of Wind Energy Operations in the company’s central zone, José Antonio García.

The Sierra Dueña wind park, owned by Iberdrola, was the site chosen for demonstration of this system that they company assured is “completely groundbreaking.” This is because of its ability to collect images in real time and, additionally, store them in high quality. Before, they explained, in order to perform an inspection of this type, a crane had to be installed and an operator revised the wind turbine piece by piece or it could also be done by telescope while the wind turbine was turned off. The time it took in the inspection, at least two hours, represented a loss of productivity.

The Aracnocóptero Eol6 performs the same functions, but more quickly, and is also capable of detecting precisely any type of erosion or damage, which is why it stands out. It also allows them to act early and avoid more severe damages.

The Iberdrola’s regional head of Operations and Maintenance in Castile and León pointed out that this type of inspection is normally carried out once every year and will help technicians to “get ahead” of the future damages due to the fact that the information it captures is “much more detailed.” These damages can be caused by wear and tear over time or because of meteorological conditions. When the erosion is acted upon quickly, removal of the blade can be avoided, an operation that implies a longer downtime of the wind turbine.

To date, this device has been tested in the Salamanca-based wind park that was created in 2005 and boasts 37 wind turbines that produce 850 megawatts of energy, but they explained that it can be implemented in all the parks that the company has around the world.

They also pointed out that Castile and León is one of the most important autonomous communities in Spain with regards to production of this type on energy, which makes up 25 percent of the total. The robotized helicopter has a flight time of 35 minutes, however, according to the director of Arbórea, Carlos Bernabéu, for security reasons they keep the flights at 8 to 10 minutes.

This firm, which was born as an offshoot of the University of Salamanca, is located in the Science Park of the academic institution.



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