

Q&A with Danny Ellis, Founder and CEO of SkySpecs and their Automated Wind Turbine Blade Inspection System using Drones, Intuitive Software and Web Portal Data Analysis Tool



Danny Ellis
Founder & Chief Executive Officer

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Interview conducted by:
Lynn Fosse, Senior Editor
CEOCFO Magazine

CEOCFO: *Mr. Ellis, according to the SkySpecs site, you are the only automated inspection solution on the market. Would you tell us about your services?*

Mr. Ellis: SkySpecs has completely automated the inspection of wind turbine blades via the use of a drone, web portal data analysis tool and reporting system. When we work with our customers, we go out to wind farms and launch a drone that flies completely on its own and will inspect all three blades of a tower in fifteen minutes or less. All that data is sent to our portal and then damage is identified, categorized, measured and shared. Recommendations of repairs are sent to our customer.

CEOCFO: *How often are wind turbines inspected? What is industry like to get a sense of where your place can and should be?*

Mr. Ellis: Mostly our customers inspect annually with other on demand inspections that are triggered either from storms or lightning strikes or other environmental factors. Most of our contracts are on an annual basis with our customers to provide an overview of their entire fleet and then in specific use cases where we will come out and do on demand inspections after that.

CEOCFO: *How is it typical inspection done today?*

Mr. Ellis: One of the first things is a lot of our customer are transitioning from a reactive method where they wait for it to fail into something that is condition-based and predictive. If they have been doing inspections, it is usually from the ground where someone will look with binoculars and if they do see something, they will pull out a camera with a zoom lens and take a picture. It is not categorized or usually historically tracked. It is only just tracked until they make the repair.

CEOCFO: *How often are repairs needed, what is the effect when there is a problem and what are going to help happen for the industry and the ultimate users of the wind power?*

Mr. Ellis: Our focus is on increasing the revenue generation potential of the assets and the longevity of the towers. Blades are a significant portion of the power generation. The gear box is what is actually converting the wind to electricity but without the blades, you do not have anything. We are trying to show that by maintaining your blades ahead of time, you are going to increase their efficiency reduce the catastrophic failure rate and take the typical asset life out well beyond 20 or 25 years. Right now, when they are ignoring it, damage on the blade can easily lead to a five percent loss in revenue and that over many years is across the industry, billions of dollars of revenue that is being left on the table. That is the first aspect but it is also working directly with the owners to make sure that their large investment in these assets lasts for dozens of years.

CEOCFO: *Are people interested before you tell them what can be done?*

Mr. Ellis: There are people in the industry that are already being proactive when they see the opportunity, but the vast majority of them have ignored the blades and think as long as it is still spinning, it is working. They are really surprised to