

What affects the severity and cost of wind turbine blade lightning damage? According to industry experts, between 1-3% of lightning strikes to wind turbine blades result in wind turbine blade ...

Originating from rare lightning incidents under real-world wind farm operating conditions, a complete dataset capturing the full process of lightning strikes on turbine blades has been...

On average, each wind turbine blade gets struck 1-20 times each year, depending on the storm-prone location. When lightning hits an unprotected wind turbine blade, it raises the ...

Today I will look at another issue that causes problems with blades - lightning strikes. Over the last few weeks, I have written about the importance of preventive maintenance and about ...

When in working order, the lightning protection system (LPS) can channel up to 200,000 Amps from the lightning strike to the ground. A properly designed and maintained LPS is critical to a ...

When a wind turbine is struck by lightning, damage occurs not only on the surface of blades or towers but also triggers a chain reaction through conductive structures, cables, and control ...

Due to climate changes and technical progress, lightning strikes pose an increasing challenge for wind turbines. In this article we delve into the challenges and potential consequences of ...

Lightning-induced damages to wind turbine blades are widely recognized as severe and can result in unplanned plant shutdowns. Therefore, it is crucial to thoroughly investigate the...

This paper presents a novel numerical approach to simulate lightning strike damage to equipotential bonding interfaces of wind turbine blades, and model validation based on high-current ...

As wind energy continues to scale, so do the challenges facing turbine operators and asset owners. One of the most underestimated yet critical threats to turbine health is lightning. In ...

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