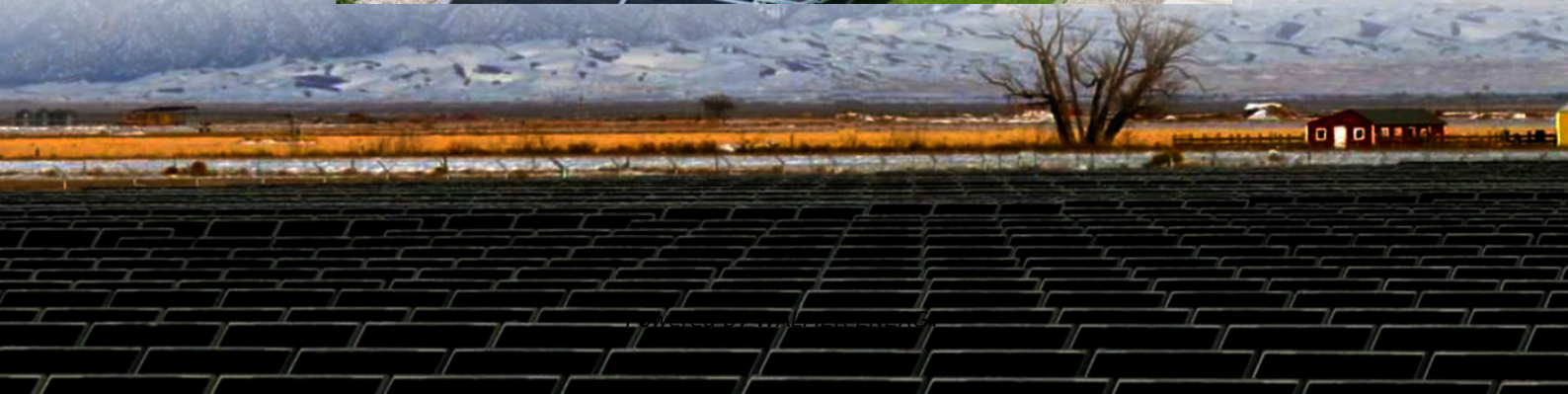


# **Basic principles of wind power lightning protection for solar container communication stations**





## Overview

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How to protect a wind turbine from lightning?

In order to plan protection measures, it is advisable to subdivide the wind turbine into lightning protection zones (LPZs). The lightning protection system of a wind turbine protects two sub-systems which can only be found in wind turbines, namely the rotor blades and the mechanical drive train.

What is lightning protection design?

There are generally two aspects of lightning protection design: 1) diversion and shielding, primarily intended for structural protection but also serving to reduce the lightning electric and magnetic fields within the structure, and 2) the limiting of currents and voltages on electronic, power, and communication systems via surge protection.

What is a lightning protection standard?

This internationally recognized standard, developed by the international experts and organized by the International Electrotechnical Commission (IEC), establishes guidelines and requirements for safeguarding wind turbines against the destructive forces of lightning strikes.

Which components can be integrated in a wind turbine LPs?

Natural components made of conductive materials which are permanently installed in / on a wind turbine and remain un-changed (e.g., lightning protection system of the rotor blades, bearings, mainframes, hybrid tower) may be integrated in the LPS.



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