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(54) Title: METHOD AND APPARATUS FOR DETECTING YAW-TO-WIND ABNORMALITY, AND DEVICE AND STORAGE MEDIUM THEREOF

(57) Abstract: Disclosed are a method and apparatus for detecting a yaw-to-wind abnormality. The method includes: acquiring a wind direction deviation angle within a specified time period; calculating a power performance index, wherein the power performance index is a dimensionless number used to characterize power generation performance of a wind turbine; determining an optimal wind direction deviation angle based on the power performance index; determining a current wind direction deviation angle according to probability distribution of the wind direction deviation angle; and if a difference between the optimal wind direction deviation angle and the current wind direction deviation angle is greater than a preset threshold, determining that a yaw-to-wind abnormality is detected. Compared with the related technology in which yaw-to-wind detection is performed through a power fitting curve, in the technical solution according to the embodiments of the present disclosure, a power index is directly used, which avoids the problem of poor power curve fitting effect and improves the accuracy of yaw-to-wind detection.

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