Wind power line tripping

Does longitudinal wind affect transmission lines?

In this study,only the along-wind effect is taken into account for the tower,as adopted in many previous works,,. As for the transmission lines,the influence of the longitudinal wind component can be ignoreddue to the restriction along the line direction.

Do wind-induced fatigue damage and anti-wind design optimization affect TTLS?

On the basis of the constructed distribution models, some researchers investigated the wind-induced fatigue damage and anti-wind design optimization of bridges, high-rise buildings and offshore wind turbines [18,,,,]. As for TTLSs, only a few studies with consideration of such joint effects have been performed.

What is a wind-induced performance evaluation framework for transmission tower-line systems?

This paper proposes a comprehensive wind-induced performance evaluation framework for transmission tower-line systems (TTLSs) from both structural safety and normal operation dimensions, incorporating the joint effect of wind speed and direction, as well as the line orientation.

Do wind attack angle and line orientation affect TTLS failure probabilities?

Combining the continuous JPD function of wind speed and direction with the system fragility curves, the failure probabilities of a TTLS located in Weifang, China are evaluated from both structural safety and regular operation dimensions. Moreover, the effects of wind attack angle and line orientation are considered and discussed in detail.

The quasi-three-phase tripping strategy of the double-circuit transmission line can improve the reliability of power supply compared with the traditional automatic reclosing strategy, but ...

Flashover tripping caused by windage yaw is one of the most frequent accident types for transmission lines exposed to wind environment, which is a major threat to the serviceability of the ...

Through the research on the cascading tripping risk of wind turbine generators caused by transient overvoltage and its countermeasures, we find that this problem is very serious.

Finally, the new tripping and closing strategy are combined to form an intelligent tripping-and-reclosing strategy for grounding faults on double-circuit wind power outgoing lines.

To prevent the recurrence of such a serious wind turbine generators tripping accident and to ensure the secure and stable operation of power grid, following suggestions are proposed: ...

The effectiveness of the proposed method is verified through actual wind-power-tripping events in the wind farm. The methodology proposed in the article provides a solution of early warning ...

In the power system, the exposed transmission lines regard the wind as a big "natural enemy". In order to resist the strong wind, the designers fully armed the line to form a fine wind ...

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Emerson has 30+ years of experience in wind control design and offers wind turbine retrofit solutions that meet the needs of varying environmental conditions, reduce tripping, and improve the annual ...

On February 24,2011,equipment fault occurred at 35kV side of Qiaoxi substation connected with the first wind farm of Gansu province,and this fault caused a serious wind turbine generators tripping ...

With wind farms being rapidly integrated into power systems, the impacts of wind power on power system operation obviously emerges. Wind generator trip-off happens frequently in China, which has ...

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