Wind Turbine Power Generation

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### Turbulence

Turbulence, in the context of wind turbines, is a measure of xxxx. Turbulence is caused by the wind passing over obstructions such as mountain, trees and buildings. Both wind sheer and turbulence diminish with height and can be overcome simply by putting the WTG higher.

**Wind Sheer**

Wind sheer describes the interference between the fast moving upper air and the slow moving air close to the ground and the resulting decrease in average wind speed as one gets closer to the ground.

* 1. Wind Classifications

1. Wind Turbine Generator Classifications

The International Electrotechnical Commission (IEC) creates and publishes standards for wind and IEC 61400 deals with wind turbine generators (WTG). Wind turbine classes are determined by three parameters: average wind speed, extreme 50-year gust, and turbulence

1. Wind Turbine Power Equation

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