Wind Turbine Power Generation

1. Abstract
2. Introduction
3. Regulations
4. Wind Classifications
5. 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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2. References
   1. Power Calculations
      1. Wind Power Engineering (US): <https://www.windpowerengineering.com/calculate-wind-power-output/>.
      2. Wind Turbine Blade Efficiency and Power Calculation with Electrical Analogy: <http://www.ijsrp.org/research_paper_feb2012/ijsrp-feb-2012-06.pdf>.
      3. Wind Statistical Analysis and the Number of Generation Hours for Different Wind Turbines at Three Lakes in Iraq : <https://pdfs.semanticscholar.org/8d3a/7f5b1e8cdfcba43f4a2d0f0e16dd296ad493.pdf>.
   2. Wind Turbine Advanced Controls
      1. NREL controls: <https://www.nrel.gov/wind/controls-analysis.html>.
      2. Detailed NREL simulator: <https://nwtc.nrel.gov/SOWFA>.
   3. Turbine Selection
      1. Manufacturer’s Recommendations (GE): <https://www.nrel.gov/wind/assets/pdfs/06_1_giguere_nrel_wese_workshop_2013.pdf>.
   4. Regulations
      1. IEC 61400 is an International Standard published by the International Electrotechnical Commission regarding wind turbines: <https://en.wikipedia.org/wiki/IEC_61400>.
   5. Wind Characteristics
   6. Turbulence
   7. Overview by Science Direct: <https://www.sciencedirect.com/topics/engineering/wind-turbulence>.
   8. Advanced Application: https://www.ijareeie.com/upload/2015/september/42\_Turbulence.pdf
   9. Sda
   10. sadsd
3. Bar
4. blatz