Theoretical power generation of wind power

The power in the wind is given by the following equation: Power (W) = 1/2 x r x A x v 3. Power = Watts; r (rho, a Greek letter) = density of the air in kg/m 3; A = cross-sectional area of the wind in m 2; v = velocity of the wind in m/s

Wind turbine generators (WTG"s) of different sizes and designs are successfully used to convert the kinetic energy of the wind into both mechanical and electrical energy. The Betz"s law allows us to understand the maximum power that can ...