

18 A wind turbine has blades that sweep an area of 2000 m^2 . It converts the power available in the wind to electrical power with an efficiency of 50%.

What is the electrical power generated if the wind speed is 10 m s^{-1} ? (The density of air is 1.3 kg m^{-3} .)

A 130 kW

B 650 kW

C 1300 kW

D 2600 kW

19 The diagram shows a wheel of circumference 0.30 m. A rope is fastened at one end to a fence.