Assignment

From a water fall, water is falling at the rate of 100 kg/s on the blades of turbine. If the height of the fall is 100m. What will be the power delivered to the turbine?

Ans) Given,

Rate of water fall, $\dot{m} = 100\, kgs^{-1}$

Height of fall, $h = 100\, m$

Energy on blade = potential energy of water fall

$$E = \dot{m}gh = 100 \times 10 \times 100 = 100\, kW$$

Hence, energy is $100\, kW$