

WIND STATISTICS OF QUETTA (PAKISTAN)

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Abstract

Hourly wind data at Quetta for period 1980-1985, were obtained at height of ten meters, with a view to work out the feasibility of wind energy utilization.

Wind energy data is analysed by using various kind of distributions. For Weibull density function, scaling and shaping parameters are determined by Justus relationships (1). Density functions for Weibull, Rayleigh and Normal distributions were obtained and plotted with yearly mean wind speeds. Weibull and Rayleigh average powers for 1980-1985 were also calculated. Speed duration and frequency curves were obtained to determine the estimated working and operation of wind systems, for the same period, were plotted to determine the optimum rated wind speed and average power output.