عنوان مقاله:

The Study of Wind Power Potential at Divandareh Site

محل انتشار:

سومین کنفرانس انرژی های تجدید پذیر و تولید پراکنده ایران (سال: 1392)

تعداد صفحات اصل مقاله: 5

نویسندگان:

Farahnaz Taghavi - *Department of Space Physics, Institute of Geophysics, University of Tehran, Tehran, Iran*

Arash Kiyoumarsi - *Faculty of Engineering University of Isfahan, Isfahan, Iran*

Abas Hossieni - *Department of Space Physics, Institute of Geophysics, University of Tehran, Tehran, Iran*

Vahid Rasouli - *Faculty of Engineering Islamic Azad University, Islamshahr Branch, Tehran, Iran*

خلاصه مقاله:

The aim of this paper is the evaluation of wind energy potential at Divandareh, a place located at Kurdistan, in Iran. For this purpose, a statistical analysis of the wind data ofDivandareh site in duration of a year was performed at three different heights of 10, 30 and 50 meters. Moreover, dominantflow direction of wind was checked. Based on the measured data and according to the US standards, the site is found to be a class3 wind power site with power density of 336.18 W/m2 at 50 mheight. Therefore, this site is suitable for wind energy development by using wind turbines with tall towers. For thispurpose, four different commercial wind turbines have been studied and average power and annual output energy wasobtained for each of them. Finally, after determination of capacity factor, it was achieved .that turbine model De Wind 48 has the maximum one

کلمات کلیدی:

Wind Energy, Feasibility Study Availability Factor,Capacity Factor, Weibull Distribution