International J. of Engg. Research & Indu. Appls. (IJERIA). ISSN 0974-1518, Vol.3, No. I (2010), pp 155-167

WIND ENERGY IN INDIA - A CRITICAL REVIEW

MD. ZAFAR ISLAM SAJID, K. HEMA CHANDRA REDDY AND E. L. NAGESH

Abstract

Life is but a continuous process of energy conversion and transformation. The accomplishments of civilization have largely been achieved through the increasingly efficient and extensive harnessing of various forms of energy to extend human capabilities and ingenuity. Energy is similarly indispensable for continued human development and economic growth by eradicating poverty, improving human welfare and raising living standards world-wide. And without economic growth, it will be difficult to address environmental challenges, especially those associated with poverty. There is growing interest in many countries both developed and developing to harness Renewable Energy not to replace the conventional energy but to supplement them. Among the Renewable Energy Sources, Wind is the most matured, pollutionfree and having less gestation period. In this paper the Wind Energy potential and the installed capacity in the country in comparison with global scenario presented. The constraints faced for wider application of wind energy and the possible remedial measures discussed in the paper. In our country most of the wind turbines are installed as a tax saving measure where as Wind Farm Co-operatives are there in Denmark. It is suggested that Wind farm co-operatives on the lines of the ones in Denmark will help to involve many people in the wind field, which becomes a mass participation in the Wind Sector. Also the need to set up Wind Fund to support more wind farms in the co-operative sector suggested. It is concluded that Wind Energy has a major role to play in the energy mix of our country.

Keywords: Renewable Energy, Wind Electricity, Wind Mill, Harnessing wind power