

ABSTRACT

This dissertation advances the understanding wind potential as energy resource in order to assist for development of the country. This paper first provides background information about wind and wind patterns. The evaluation of winds as a resource includes a review of available data and discussion to the method of analysis. Results imply high wind power potential in Hambantota, which is in the southern part of the country. Where data indicate mean annual wind speeds of 20.3 kilometers per hour at 10 meters height and wind direction SW and NE plane with wind energy potential of 108.69 Wm^{-2} . If we can make use of the wind power in an ordered manner it will be a cost-effective power source for Sri Lanka. This paper concludes with a discussion of the implications of these results of wind potential energy for the development of economy of Sri Lanka.