

Green Energy generation in India: Present scenario and its future aspects

Rajnikanth Cheri*, Yash Kumar Rathore, Sandeep Gardasu, K. Narasimhulu

Department of Biotechnology, National Institute of Technology Warangal, Warangal-506004, Telangana

*Corresponding author

ABSTRACT

Energy is a prime factor for economic growth, social and industrial development of a country. It is estimated that by the next two decades, the world energy consumption will be two-thirds more than today. India, which is the one of the fastest developing and populous countries of the world, experiences highly economic boom in recent thirty years on the one hand, and on the other, is suffering from huge energy shortage. The role of new and renewable energy sources has been increasing significantly in recent years due to growing energy demand with minimum environmental impact. Renewable Energy Sources (RES) are clean, safe, easy to maintain and sustainable method of generating power. The development of Renewable Energy Sources (RES) is necessary for the sustainable development of any country due to depleting fossil fuel level, climbing fossil fuel prices across the world and more recently pressure for reduction emission level. In India, several schemes and policies are launched by the government to support the use of RES to achieve energy security and self-sufficiency. This paper discusses the present scenario and future prospects of RES in India. Various schemes such as financial assistance, tax holiday etc for promoting RESs development and utilization are also discussed. The present situation is seen to be very promising and favorable for RES in India. Renewable energy sources such as wind, solar, biomass and SHP are getting greater recognition in meeting the day-to-day energy requirements for captive power of domestic, commercial and industrial sectors. The renewable energy sector is now an established sector in India with significant installed grid quality renewable power, which has reached 13.8 GW as of September, 2008. A large number of decentralized renewable energy systems such as biogas plants, solar water heating systems, biomass gasifiers, SPV systems, etc. have been promoted under various schemes of the MNRE.

Keywords: Renewable Energy Sources, biomass, solar water heating systems

