

Importance of Renewable Energy in Modern/Current Age

Type: Editorial

Received: November 20, 2023

Published: December 28, 2023

Citation:

Kamaljyoti Talukdar. "Importance of Renewable Energy in Modern/Current Age". PriMera Scientific Engineering 4.2 (2024): 01.

Copyright:

© 2024 Kamaljyoti Talukdar. This is an open-access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Kamaljyoti Talukdar*

Assistant Professor, Department of Mechanical Engineering, Bineswar Brahma Engineering College, Kokrajhar, Assam, India

***Corresponding Author:** Kamaljyoti Talukdar, Assistant Professor, Department of Mechanical Engineering, Bineswar Brahma Engineering College, Kokrajhar, Assam, India.

In today's world energy consumption is increasing at an alarming rate with rapid developments in any society or places. From the industrial revolution energy production has made rapid developments by utilizing conventional sources like coal, petroleum, natural gas, nuclear energy etc in different equipments/power plants. However these conventional sources have drawbacks like not being able to replace after consumption with having limited stocks and millions of years to generate it. They emit high carbonaceous element after use and as a result not environment friendly. Also costs of conventional resources are high. Only benefits of using conventional sources are that they need less land requirements and maintenance costs compared to renewable/non conventional sources.

On the other hand different renewable/non conventional sources are solar energy(energy derived from sun's radiation falling on earth's surface), wind power(energy generated using air's velocity), tidal energy(energy generated by using different level of water during high and low tides), hydro-power(energy generated by movement of water from higher to lower heights), ocean energy(energy generated by using waves and currents of sea water), bioenergy (energy derived from decomposition of organic materials, called biomass), geothermal energy(energy derived from below of earth's surface which got trapped during formation of earth and with radioactive decay) and lastly by OTEC(-ocean thermal energy conversion)(energy derived by using temperature gradient between surface and deep ocean waters).

The advantages of renewable sources are that they can be renewed in nature in short time with unlimited supply; less polluting to environment due to less carbon emissions; and low cost.

At present share of renewable energy in India is 42.5% (as on February 2023) [1]. In the world's perspective it is 29% of electricity generation from renewable (as on 2020) [2]. However it will need lot of good innovations for utilizing renewable sources upto maximum limits.

References

1. Renewable Energy Stocks in India 2023 - Blog by Tickertape, <https://www.tickertape.in/blog/renewable-energy-stocks-in-india/>
2. Renewable Energy - Center for Climate and Energy Solutions, <https://www.c2es.org/content/renewable-energy/>