

## A Brief Overview on Alternative Energy Resources and its Future Perspective

Manmadharao Bodasingi\*

Department of Mechanical Engineering, SISTAM College of Engineering, JNTUK University, Srikakulam, Andhra Pradesh, India

### DESCRIPTION

Fossil fuel is a hydrocarbon contented material. Initially used fossil fuel is coal. Coal is formed in underground from dead plants, humans and animals matter are exposed to pressure and heat without oxygen. Inside the earth the formation of coal from these fossils is takes nearly million years. The mainly used fossil fuels are petroleum, natural gas and coal. From 1770 coal is used to heat the homes and cooking food. But in 1800s industrial revolution coal is the main fuel, that's why we say coal use started in 1800s. It is almost 250 years people using coal as fuel, now it's time to quit using coal. United states have largest coal source in the world, there is enough coal for upcoming 250 years of country energy needs. But U.S always do research for alternative energy resources which are eco-friendly.

Coal is chemically carbon, but it has some trapped impurities inside it like sulfur and nitrogen. When we burn coal these impurities are released into the air. And these impurities in the air combine with oxygen and forms sulfuric acid and nitric acid, these acids are fall on earth as droplets with rain, these rains are called acid rains. Approximate value of remaining underground coal in the world is 1.16 trillion short tons.

Petroleum is mostly used fossil fuel, it is mixture of hydrocarbons. Petroleum is in liquid state and it occurs inside the earth generally called crude oil. Generally above this liquid some gas is presented called natural gas, it contains hydrocarbons in free state. While burning these both petroleum and natural gas large amount of Carbon dioxide is released into atmosphere as an exhausting product. The molecule of CO<sub>2</sub> does not allow the reradiating solar radiation from the earth. The CO<sub>2</sub> in the atmosphere stores this radiation it causes to high temperatures in earth's atmosphere this effect is called greenhouse effect and the phenomena is called global warming [1]. When these fuels are partially burns it causes to release carbon monoxide (CO) which is toxic gas harms to human health, and sometimes Sulfur dioxide is released this is cause to acid rains. History says that 5000 years ago ancient people of Babylonians, Sumerians and Assyrians used these crude oil, asphalt and bitumen. In recent year surveys says that the remaining petroleum reserves in the world are 1.64 trillion

barrels. And averagely it is enough to 46 years of consumption of the world.

Natural gas is chemically hydrocarbon and called methane, when it burns it is also release CO<sub>2</sub> as byproduct. Ancient Greeks and Chinese people used this natural gas since 1000 BC. In 1785 British people used this gas to light houses and streets as a byproduct when coal burn. The first natural gas well is dug in United States in 1821 and till now largest producer in natural gas is also U.S. Overall fossil fuels usage natural gas is 24% and remaining are petroleum 34%, coal is 27%. As per the recent indexes remaining natural gas reserves are 6923 trillion cubic feet. And it is enough to usage of next 52 years [2].

The power production with radioactive materials is known as nuclear power plants. The nuclear waste produced in these power plants is radioactive and its safe disposal is expensive and very difficult. Nuclear power plants causes to thermal radiation and marine life is affected with the nuclear wastewater. And overall impact on human life and environment is high.

The impact on environment is high with the use of traditional fuels in past years and the conventional fuel sources are also decreased [3]. The Air Quality Index (AQI) values are very bad in all the metropolitan cities in the world. Water, air and land are polluted with the fossil fuel byproducts.

It is the time to replace the traditional energy systems with eco-friendly or alternative energy systems for our and our future generation's safe and healthy life. There are some non-conventional energy sources currently using they are solar energy, wind energy, tidal energy, hydropower, geothermal energy and biofuels etc. In these energies most are no harm to environment and some are very less harm to environment. By using these energy systems we could decrease the emissions of Carbon dioxide up to 1.8 Giga tons in a year. Human Development Index (HDI) values and other environment indexing values are decreased in some cities because of pollution. So, finally it is too late for the evaluation of renewable energy. Our future generation's future depends on our actions.

**Correspondence to:** Manmadharao Bodasingi, Department of Mechanical, SISTAM College of Engineering, JNTUK University, Srikakulam, Andhra Pradesh, India, E-mail: manmadharao2905@gmail.com

**Received:** December 03, 2021; **Accepted:** December 17, 2021; **Published:** December 24, 2021

**Citation:** Bodasingi M (2021) A Brief Overview on Alternative Energy Resources and its Future Perspective. J Fundam Renewable Energy Appl. S2:001.

**Copyright:** © 2021 Bodasingi M. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

## REFERENCES

1. Owusu PA, Asumadu-Sarkodie S. A review of renewable energy sources, sustainability issues and climate change mitigation. *Cogent Eng.* 2016;3(1):1167990.
2. Martinez A, Iglesias G. Climate change impacts on wind energy resources in North America based on the CMIP6 projections. *Science Total Environ.* 2022;806:150580.
3. Kolar JL. Alternative energy technologies. *Environ Quality Manag.* 2000;10(2):45-54.