

Green Energy as an Alternative Fuel for Future Energy

Ajay Kumar Upadhyay
Department of Physics

Teerthanker Mahaveer University, Moradabad, Uttar Pradesh, India

Abstract: *The science and technology has been growing multifold in comparison to the last few decades and thus world has been taking a new shape in all the dimension weather it is related to the infrastructure or other new technology such as the mobile and communication or even information technology. The emerging technology have depended each other in such a way that their existence cannot be imagine alone , that are inseparable in nature as one technology depending other one . Unfortunately, consumption of the energy is the back bone of the development of the technology and infrastructure and human is mainly dependent upon the fossils fuel for the generation of the energy but this type of the fuel is not last longer and it is highly anticipated that one day the fossil fuel will finish. That is why; the human is in search for the alternate energy source in the form of the green energy in order to full fill the requirement of the energy for the use of the technology and infrastructure.*

Keywords: *Green energy, Sustainable development, Fossil fuel, solar energy, Human well-being, Renewable source.*

INTRODUCTION

Everyone is well aware of the fact that our world has been seriously affected because of our own practices. Therefore, it is a very serious issue to think about the transfer of the energy need from the conventional to the other some reliable form of the energy. The solution to this issue is green energy or renewable energy. Energy is a key element in the discussion of the cultural, social and environmental aspects of sustainable development[1]. Fossil-based oil, typically containing coal, petroleum, natural gas, etc., is the energy form. Many types of energy are sustainable. If it is known, fossil fuels are not sustainable. In order to explain and recognize the need for clean energy options for the supply and creation of green energy, the main negative implications of fossil fuels should be introduced first.

Unfortunately, fossil fuels have created some serious human health and welfare problems with widespread use in many industrial non-industrial industries. These issues elsewhere are extensive. In fact, the main cause of these problems is seen as the widespread use of fossil-based technologies and strategies by human beings to control societies, countries, in short, the whole world over the centuries[2]. The planet has, thus, reached a point that can no longer be acknowledged. The urgent need here is to establish green energy solutions for a sustainable future without any adverse impacts on the environment and society.

Sustainable development includes the availability of energy resources that are available at reasonable cost and are sustainable and have no or limited adverse effects on society. Energy

resources, such as fossil fuels, are clearly small and thus lack sustainable characteristics, while others, such as green energy sources, are reasonably sustainable in the long term[3]. In particular, the most effective means of improving sustainable technological growth and industrial productivity, as well as the standard of living in a society, is low-priced renewable energy. Hence, efficient and effective renewable energy approaches to increase the use of green energy sources and technologies should be put forward.

GREEN ENERGY FOR SUSTAINABLE DEVELOPMENT

In the market, a lot of the options are available where green energy has been used. Many considered the green energy as the renewable energy but there is slightly difference between the green energy and renewable energy. As per the environmental agency, green energy is defined as the energy which uses the solar, geothermal, wind, biogas, and certain biomass for the power production and possesses the highest environmental benefits. When you flip a power bulb or charge your battery, these renewable sources join the power grid but were different from traditional energy sources. Even though renewable energy covers the same resources as green energy, renewable energy covers technologies and goods more generally, which can have a direct effect on both the national and international climate? Essentially, when you consume green energy, you often support different ventures in the field of renewable energy as well as invest in features that enable them expand.

One should aware about the energy consumption source as in the power grid the green energy is mixed up with the other source of the energy as the conventional energy and transport to the consumers. The power grid or the electric grid is the arrangement where the all the energy are mixed up before entering into the transmission grid[4]. Therefore, when a customer pays for the green energy it is the not only green energy but the combination with the conventional energy also[5]. Another way to avail the green energy consumption is the solar energy installation at the roof top space. The use of the green energy is the best way to reduce the carbon foot print. This is one of the best ways to use the renewable energy for the large scale investment in order to reduce the carbon foot print.

Types of the green energy:

- *Solar Energy*

The sun is the source for the solar energy and it is one of the cleanest sources for the green energy. The enormous energy is generated due to the nuclear fusion reaction at the surface of the star as the sun is also considered in the family of the star. In the process of the nuclear fusion, the small atom fused in to the bigger atom by application of the heat and pressure and thus releases a lot of the energy in that process and this energy is in the form of the radiation, later it collect and convert into the usable energy. The solar panel has been used for the conversion of the radiation energy in to usable solar energy. The solar panel integrated with the photo voltaic cells which upon the hitting of the sun light generate the electric current due to photovoltaic

effect. This current is converting into the alternating current through the inverter and mixed with the conventional energy through national power grid.

- Wind energy

The wind energy is also because of the heating effect of the sun. The atmosphere of the planet earth is heat up by the sun and this heating is uneven because of the varied topology of the earth. The unevenness of the effect caused the flow of the wind, which further modulated by the typical topology of the earth and also due to spin of the earth. The wind help to turn the blade of the wind turbine which further rotate an internal rotor inside the turbine. The rotor helps to move a shaft, which spins the generator and generate the electricity.

- Hydroelectric energy

By harvesting energy stored inside flowing water, hydropower energy is generated. By forcing fluid to drain along a narrow path, this is best accomplished, thus increasing its power per square meter. This is normally done by storing storm water or dam and also by opening an outlet, selectively trying to purge the water. At tremendous speed, the gravitational force generated by keeping water higher up in the dam pushes the water via the intake. The flow activates a generator once released, which again stimulates a generator, producing electricity. Hydroelectricity is among the most common types of green energy because of its effectiveness. It is projected that 4 billion tonnes of carbon dioxide have not been emitted into our environment by producing hydroelectric power electricity in 2017 alone.

- Bio gas

The bio gas is not only a source of the green energy but also it has been applied in the waste management of the food, sewages, manure and agricultural waste. The materials are stored in the oxygen less containers which causes the fermentation of the materials and produce the methane and carbon dioxide in addition to other gases. The methane produced in the process is used to heat homes, fuel vehicles and produce the electricity apart from the product inside the container become nutrient rich and used as the fertilizer.

FACTORS RESPONSIBLE FOR SELECTING THE GREEN ENERGY FOR FUTURE ADVANTAGES

Below are some key factors in the review for the model creation which are supposed to speed up the use of renewable energy technologies and incorporate green energy strategies. Therefore, the relationship between energy use and development and sustainability is complex. Sustainable development as involving four main factors as Economic, cultural, social, energy and sustainability of resources[6]. In this regard, the relationship between green energy and sustainability will be investigated through our present model. It is clear that green energy solutions as discussed below would contribute to sustainable growth.

➤ *Green energy and sustainability:*

Sustainability has been described as a key to addressing current environmental, economic and growth challenges. Green energy will play a significant role for sustainable development in meeting energy needs in both industrial and local applications. Therefore, a high priority for sustainable development in a country should be given to developing and using green energy strategies and technologies. The world's need for sustainable energy production is increasingly growing. Widespread use of green energy sources and technologies in both developing and developed countries is critical for achieving sustainability in the energy sectors. For three primary purposes, renewable energy resources and technology are a central constituent of sustainable growth[7].

➤ *Essential factors:*

These factors can contribute to the definition and achievement of green energy policies and technologies essential for sustainable growth. Powerful and prominent advances which are rooted in fundamental human needs are mainly driven by green energy technologies. In line with this, the growing world population demands the idea of and the successful implementation of green energy technologies. Briefly, the essential criteria and their interrelations as required for carrying out the best green energy system and selecting the most appropriate green energy technology / technologies for sustainable growth[8].

➤ *Green Energy Applications:*

Renewable energy innovations can play a crucial role in potential scenarios for renewable energy. The primary factor that will assess the fundamental role of green energy and innovations is likely to be energy demand. Green energy can therefore be produced from renewable sources of energy, such as tidal, solar, wind, geothermal, wave, biomass, etc., in order to offset energy needs.

CONCLUSION

In this study, green energy strategies for sustainable development are investigated and some key parameters are identified. The effects of the impact ratios of technological and practical applications on the impact ratio of renewable energies are widely studied. This review paper then summarizes some important comments; green energy policies would make a significant contribution to the economies of countries where green energy is produced in abundance. Therefore, for the future of world nations, investments in the supply of renewable energy should be encouraged by governments and other authoritative bodies that wish to provide a renewable alternative to fossil fuels for strategic purposes.

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