

## The Clean Energy and Green living: An Overview



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### **Abstract**

*As the society has become socially, economically and technologically advanced more and more energy is required to satisfy human needs. In this technological age, human existence depends on the maintenance of natural resources and the environment. The use of renewable energy is now increasingly being considered as essential for the welfare of mankind. Renewable energy such as solar energy, wind energy, geothermal energy, hydro power, Ocean energy is produced from natural resources such as sun and the wind. Renewable energy is a natural gift to the mankind to attain our social and economic objectives. Renewable energy plays an important role in the economic, social and cultural development of a country. Now the realisation has dawned on humanity that to save the planet Earth, we should opt for Renewable energy. The use of renewable energy is also necessary because it controls the pollution of environment, it improves the quality of life for the future generations. According to the IEA's world energy Outlook and other research projects solar and wind energy have considered the cheapest renewable energy resource sources and have become more affordable. Wind and the solar energy are the fastest growing renewable energy sources but contribute just 5% of the total energy used in the world. Wind energy is the most sustainable form of energy with zero greenhouse gas emissions. Nuclear energy is the cheapest form of energy and producing maximum power which is nearly 92% of the total of energy in an emission sense nuclear power is considered to be clean. It produces zero carbon emissions and does not produce other noxious greenhouse gases through its operation. Hydrogen gas is considered the fuel that has potential of being widely used in future. Cheap electricity from renewable sources may lead to massive cutting of carbon emissions. Also, it will help to mitigate climate change.*

**Key words:** drastically, transit, climate change, sustainable greenhouse gas emissions, IREA, diversify

### **Introduction**

In recent years, there has been a growing recognition of the urgent need to transition to renewable and clean energy sources to mitigate the environmental challenges we face and create a sustainable future. The world is witnessing a remarkable shift towards a greener way of living, with renewable energy playing a central role in this transformation. This leap forward towards green living is driven by the understanding that our current dependence on fossil fuels is not only depleting precious resources but also causing irreparable damage to the planet.

Renewable energy sources, such as solar, wind, hydro, geothermal, and biomass, offer a promising alternative to traditional fossil fuels. Unlike fossil fuels, which are finite and contribute to greenhouse gas emissions, renewable energy harnesses the power of naturally replenishing resources, enabling us to generate electricity and fuel while minimizing environmental harm. This shift towards clean energy not only reduces our carbon footprint but also presents numerous economic, social, and health benefits.

The urgency to adopt renewable and clean energy solutions is underscored by the mounting evidence of climate change and its devastating consequences. Rising global temperatures, extreme weather events, melting ice caps, and

biodiversity loss are all clear indicators of the need for immediate action. By transitioning to renewable energy, we can significantly reduce carbon emissions, mitigate climate change impacts, and preserve the planet for future generations.

Furthermore, embracing clean energy sources goes beyond environmental considerations. It presents a tremendous opportunity for economic growth, job creation, and technological innovation. The renewable energy sector has already experienced remarkable advancements, driving down costs and making clean energy more accessible than ever before. Investments in renewable infrastructure, research, and development are catalyzing a transition towards a sustainable, low-carbon economy, fostering green industries and generating employment opportunities across the globe.

Additionally, the shift to renewable energy brings tangible health benefits to communities worldwide. Traditional energy sources, such as coal and oil, contribute to air pollution and associated respiratory diseases. By embracing clean energy, we can improve air quality, reduce the incidence of health problems, and enhance the overall well-being of individuals and societies.

In this journey towards green living, governments, businesses, and individuals all have a crucial role to play. Governments must implement supportive policies and regulations that incentivize renewable energy adoption, foster research and development, and promote clean energy investment. Businesses can drive change by adopting sustainable practices, investing in renewable technologies, and developing innovative solutions. Individuals, too, have the power to make a difference by adopting energy-efficient habits, advocating for renewable energy, and supporting the transition through their choices and actions.

In this discussion, we will explore the various renewable energy sources, their benefits, challenges, and potential solutions. We will delve into the ongoing efforts to transition to clean energy at a global scale and examine the transformative impact it has on our environment, economy, and society. By embracing renewable and clean energy, we can collectively take a significant leap forward towards a greener, more sustainable future.

Furthermore, the transition to renewable and clean energy sources aligns with the United Nations Sustainable Development Goals (SDGs), particularly Goal 7: Affordable and Clean Energy. This goal emphasizes the need to ensure universal access to affordable, reliable, sustainable, and modern energy for all. By embracing renewable energy, we can address energy poverty, expand access to electricity in remote areas, and empower communities to become more self-sufficient in meeting their energy needs.

One of the key advantages of renewable energy sources is their abundance and widespread availability. Solar energy, for example, is virtually unlimited and can be harnessed in almost every part of the world. Similarly, wind energy can be captured in areas with consistent wind patterns, and hydropower can be generated using rivers, tides, and ocean currents. By diversifying our energy mix and tapping into these renewable resources, we can reduce our reliance on imported fossil fuels and enhance energy security.

Moreover, renewable energy systems have a smaller environmental footprint compared to traditional energy sources. Solar panels and wind turbines produce electricity without emitting greenhouse gases, helping to mitigate climate change and reduce air pollution. Unlike fossil fuel extraction, renewable energy generation

does not involve destructive practices such as mountaintop removal or oil spills, safeguarding ecosystems and biodiversity.

However, the transition to renewable and clean energy is not without its challenges. One of the primary concerns is the intermittent nature of certain renewable sources. Solar power generation is dependent on sunlight availability, and wind power relies on consistent wind speeds. Addressing this intermittency requires the development of advanced energy storage technologies and the integration of smart grid systems to ensure a stable and reliable power supply.

Another challenge is the upfront cost of renewable energy infrastructure. While the prices of solar panels, wind turbines, and batteries have significantly decreased in recent years, the initial investment can still be a barrier for many individuals and businesses. Governments and financial institutions must provide incentives, subsidies, and favorable financing options to accelerate the adoption of renewable energy technologies and make them more accessible and affordable for all.

Additionally, the transition to renewable energy requires the development of a skilled workforce. The rapid growth of the renewable energy sector demands professionals with expertise in engineering, manufacturing, installation, maintenance, and research. Investing in education and training programs that equip individuals with the necessary skills can create job opportunities and foster economic development.

The transition to renewable and clean energy represents a pivotal leap forward towards green living. It offers a sustainable solution to combat climate change, reduce pollution, enhance energy security, and promote economic growth. By harnessing the power of renewable resources, we can create a cleaner, healthier, and more prosperous future for ourselves and generations to come. The path to a sustainable energy future requires collective efforts, bold actions, and a shared commitment to building a greener and more resilient world.

Our environment determines the existence growth and development of mankind. The relationship between environment and human being changed drastically over the past few decades or so. The true relationship between environment and human being changed to bitter relationship. The industrial revolution brought many environmental changes all over the world.

Now man has broadened his environment through his skill and design to have better future for the generations to come. As the society has become technology more and more energy is required to meet the human needs. The use of renewable energy is now considered as essential for the welfare of mankind. Renewable energy often referred to as Clean Energy which comes from natural resources. The man has realise that to save the planet earth we should off for renewable energy. Renewable energy resources are in exhaustible They can be renewed by physical mechanical and chemical processes. Renewable energy such as solar energy wind energy geothermal energy hydro power and tidal energy are the best examples of renewable energy sources. Renewable energy plays an important role in the social economic and cultural development of a country. Solar energy and the wind energy are the most important and outstanding examples of renewable energy resources. They are plentiful and produce far lower greenhouse gas emissions such as carbon dioxide. The shifting from fossil fuels to renewable energy is the key for addressing the climatic crisis. Solar energy and the wind energy are the most important and outstanding examples of renewable energy.

## Need of Renewable Energy

1. Renewable energy sources are readily available in all the countries at all times. They provide help to the countries to help diversify their economies and give them another way out of import dependency.
2. Renewable energy is the cheapest power option for electricity from renewables to meet 65% of the world's total electricity supply by 2030.
3. Renewable energy is healthier than other dirty fossil fuel energy. Transitive to clean sources of energy help mitigate climatic change. They help to address air pollution water pollution soil pollution noise pollution and health.
4. There are three times more job opportunities in renewable energy sector than in the fossil fuel industry. This means that a total of more than 30 million jobs could be created in Clean Energy sector.
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6. Renewable energy makes economic social and cultural sense. Reliable renewable technology can create a social, economic and cultural environment which is less prone to market shocks.
7. Renewable energy improves resilience and energy security by diversifying power supply options.

## Objectives of Renewable Energy

The first and foremost objective of shifting to renewable energy is to reduce the consumption of energy from dirty fossil fuels. the shifting from fossil fuels to renewable energy is the key for addressing the climate crisis. The transit to renewable energy is our only hope for a safer world. The use of renewables is also necessary because it controls the pollution of environment. it improves the quality of life for future generations. Renewable energy resources are in exhaustible that is they can be renewed and it cost very cheap. Renewable diversify energy supply and reduce depends on imported fuels which create some type of air, water, soil, and noise pollution. Renewable create economic development and jobs in manufacturing and installation.

## Conclusion

Now it has been concluded that we should diversify power supply options to improve resilience and energy security for the Nations. Man must nurture nature resources to stop climate change. The dirty fossil fuels are largest contributors to global climatic change. Conventional energy sources are producing over 75% of the global greenhouse gas emissions and near about 90% of all carbon dioxide emissions. IREA estimates that 90% of the world's electricity can and should be produced from renewables by 2050. Today mankind is facing harsh climate challenge and renewable energy or Clean Energy is the key to the solution. A large percentage of the greenhouse gases are emitted by burning these dirty fossil fuels. To protect the life on this beautiful planet Earth the emissions need to be reduced by almost half by 2030 and reach net zero by 2050. According to the IREA, to achieve net zero emissions by 2050 90% of global electricity generation will need to be produced from renewable sources. To avoid the worst impacts of a climate change we should opt for alternative sources of energy

that are clean, accessible, affordable, sustainable and reliable.

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