

Green Energy In Saudi Arabia

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Introduction

In modern society, a deteriorating climate is a prime concern for everyone around the world. The deterioration of climate and health is mainly caused by air pollution and by the consumption of fossil fuels. Although we have entered the global world of innovative technology, it has immensely impacted the quality of our health and natural environment. The consumption of fossil fuels and the negative effects arising from such consumption have forced organizations to devise environmentally friendly substitutes. Countries from all around the world are implicating green energy to facilitate the creation of an eco-friendly future. The awareness programs have enlightened people to devise policies that require industries to use environmentally friendly resources in energy consumption. This essay will unveil the significance of green energy solutions and their practical implications for the Kingdom of Saudi Arabia.

Green Energy: Brief Overview

Green energy can be defined as a type of energy that is produced from natural resources. These natural resources can be sunlight, water, tides, plants, algae, and geothermal heat. Green energy comes from renewable energy sources. In many paradigms, green energy and renewable energy overlap.

The most prominent factor of green energy is that it does not harm the natural environment by spreading pollution. It does not spread pollution or harmful gases in the atmosphere like fossil fuel consumption does. Green energy is produced in such a way that it has the minimum negative impact on the natural environment. To be known as a green energy project, the resource must not take part in causing pollution in the environment. Non-renewable energy projects involve the burning of organic material, which produces a massive amount of carbon dioxide. This carbon dioxide goes into the atmosphere and causes air pollution. The sources used for green energy projects are naturally refilled and do not cause any harm to the climate. Green energy sources are a thousand times better than fossil fuels (gas, oil, or coal). Sometimes, green energy projects also avoid drilling and mining operations to avoid any negative impact on the ecosystem. Green energy resources are renewable, which implies that they are naturally restocked.

Types of Green Energies

Different types of green energies can be harvested from natural resources. These types of green energies are the following:

- Solar Energy
- Hydro-Energy
- Geo-Thermal Energy
- Wind Energy

Practical Implications

Green energy can be produced from many different processes because it is a permanent resource that can be harvested from many different locations around the globe. Green energy solutions provide eco-friendly and economical solutions which can provide immense benefits. The green energy projects can use green energy from a variety of stable resources. Green energy can be garnered from different natural resources present all around the world. The concept of green energy was first introduced in 2006. Governments across the globe are working on devising new policies and legislatures to enhance green energy production and renewable energy projects. According to recent surveys, Germany is ranked at the top in using green energy/ renewable energy resources in the world (Nhede, 2020).

Benefits of Green Energy

Environment-Friendly Alternative

There are many benefits of green energy projects. Green energy provides a neat and environment-friendly solution for industries. The green energy project does not produce any greenhouse gases in the atmosphere. Greenhouse gases are harmful gases that contaminate the air and damage the ozone layer. Greenhouse gases are the major cause of global warming. Furthermore, green energy provides energy production alternatives that eradicate the requirement of fossil fuel energy.

Economical Prospect

The projects implicating green energy are economical and save a hefty amount of money on your bills. The only upfront expense that the green energy projects cause is their installation. Other than that, they are very economical in saving money spent on the bills. For instance, the solar panelling program helps in generating electricity from sunlight and minimizes the usage of commercial electricity. The solar panel system also helps in saving money on electricity bills.

Green Energy Sector in Saudi Arabia: Brief Overview

The Kingdom of Saudi Arabia (KSA) is known to be the biggest producer of oil in the world. This is the reason that most of their power plants are based on oil. This has caused massive carbon dioxide emissions into the atmosphere, which is causing climatic issues such as global warming. The Kingdom of Saudi Arabia is taking radical steps to shift from fossil fuel to green energy. The latest vision of Saudi Arabia's energy consumption plan is to neutralize the abundant emission of carbon dioxide. The "General Assembly of the International Renewable Energy Agency" (IRENA) has brought various projects of green energy and renewable energy initiatives into the limelight. Amidst the global pandemic caused by the coronavirus, the country is taking prosperous initiatives in the field of green energy. The climate of the country is very dry and hot. Therefore, solar energy (green energy) can play a significant role in replacing oil and fuel consumption with more eco-friendly alternatives. Companies in Saudi Arabia are working on establishing green energy solutions such as solar panels to produce electricity from the dry and hot climate of the country. Solar energy is the most stable and constant green energy, which is available in abundance and can never cause a shortage in the solar panelling system.

The Vision of Green Energy Consumption Solutions in Saudi Arabia

Saudi Arabia is known to be one of the emitters of carbon dioxide and other greenhouse gases, which affect the atmosphere tremendously because of oil burning in its power plants. The latest energy policies of Saudi Arabia are immensely inspired by green energy solutions and renewable energy strategies. The KSA has initiated several projects implicating green energy and renewable energy resources. This step will create many prospective aspects in the Saudi Arabian market.

The President of "The King Abdullah City of Atomic and Renewable Energy" gave prospective views on implicating green energy solutions in their projects during the General Assembly of the IRENA. According to a recent news article from Saudi Arabia, the Kingdom will be effortlessly working on using fifty per cent of its power from green energy and renewable energy resources by the year 2030. The legislative agencies and organizations are tremendously working to accomplish their goal of encouraging the use of green energy at national and international levels. The KSA is working on strategic renewable energy policies to support the 2030 vision of the country's jurisdiction. The strategic framework of Saudi Arabia's 2030 vision is to decrease oil consumption and diversification of the economy. The country is working tremendously on using renewable energy resources, as it has only been using oil resources to power its power plants.

The Initiative of Green Energy Projects in Saudi Arabia

In the contemporary world, green energy solutions should be the priority for every energy consumption plan. Correspondingly, several prominent initiatives have been taken by the Kingdom of Saudi Arabia to introduce green energy solutions in the country. The country has launched several projects implicating green energy solutions. The kingdom is in alliance with other countries to work on green energy solutions for their power plants. The prominent financial sources of funding for green energy and renewable energy projects are commercial banks and the Saudi Investment Development Fund.

Participants of Green Energy Projects in Saudi Arabia

The prominent participants of green energy and sustainable energy projects in the KSA are:

- The Renewable Energy Project Development Office
- National Renewable Energy Program
- King Abdullah City for Atomic and Renewable Energy
- The Saudi Electricity Company
- Saudi Power Procurement Company

Blue and Green Hydrogen Project

The country is progressively working on green and blue hydrogen projects to reduce carbon dioxide emissions. Saudi Arabia is initiating the world's largest "Green Hydrogen Project". This project will produce 4 gigawatts of renewable electricity. The country is also working on a hydrogen-producing plant. This project will provide green hydrogen to hydrogen power buses and reduce carbon emissions.

Solar Panelling System

The climate of Saudi Arabia is very dry and hot. Therefore, geothermal, wind and solar energy can be used to implement green energy solutions in their projects. Solar energy is the most common and significant source of energy used by the country to power its plants. Saudi Arabia is progressively working on installing more and more solar panelling plants to produce electrical energy in the country. The basic goal of Saudi Arabia is to reduce the consumption of oil by fifty per cent and shift it to renewable energy.

Conclusion

In a nutshell, green energy solutions are a significant priority for every country's government to change their consumption resources. The Kingdom of Saudi Arabia is working on reducing its oil consumption and carbon dioxide emissions in the coming years. The oil resources are non-renewable and produce an excessive amount of carbon dioxide in the atmosphere. Saudi Arabia has a role in causing global warming (due to the emission of carbon dioxide), poisoning the atmosphere, causing climatic issues, and affecting the general health of the people. Therefore, green energy solutions will help the Kingdom of Saudi Arabia to mitigate such issues.

References

Collins (l_collins), L. (2021) 'We will be pioneering': Saudi Arabia reveals 50% renewables goal by 2030, but is that realistic? | Recharge, Recharge | Latest renewable energy news. Available at: <https://www.rechargenews.com/energy-transition/we-will-be-pioneering-saudi-arabia-reveals-50-renewables-goal-by-2030-but-is-that-realistic-/2-1-954094> (Accessed: 22 April 2021).

Group, G. L. (no date) International Comparative Legal Guides, International Comparative Legal Guides International Business Reports. Global Legal Group. Available at: <https://iclg.com/practice-areas/renewable-energy-laws-and-regulations/saudi-arabia> (Accessed: 22 April 2021).

Nhede, N. (2020) 'Top ten countries with the highest proportion of renewable energy', Smart Energy International, 24 January. Available at: <https://www.smart-energy.com/renewable-energy/top-ten-countries-with-the-highest-proportion-of-renewable-energy/> (Accessed: 22 April 2021).

OSEA - Ontario Sustainable Energy Association - Accomplishments to Date (no date). Available at: <https://ontario-sea.org/trackrecord> (Accessed: 22 April 2021).

Saudi Arabia aims to generate 50% of power from renewables by 2030 (2021) Arab News. Available at: <https://arab.news/8yk8z> (Accessed: 22 April 2021).

World's Largest Green Hydrogen Project Unveiled in Saudi Arabia (no date). Available at: <https://www.greentechmedia.com/articles/read/us-firm-unveils-worlds-largest-green-hydrogen-project> (Accessed: 22 April 2021).