

The Future of Renewable Energy Programs in Iraq and Reality Between the Pollution Crisis and Renewable Energy Programs

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Received: 18.04.23, Revised: 20.05.23, Accepted: 06.06.23

ABSTRACT

This article aims to shed light on one of the modern methods of environmental management; It is environmental or green marketing, which calls for the need to adopt products that do not harm the environment. Consumer health, and the sustainable development of business organizations achieve this pioneering experience. In the beginning, it was unique to the developed countries compared to the third world countries, which have long suffered from several. Obstacles, by focusing on a new reality for the Iraqi citizen, which necessitated a response to scientific developments, and environmental changes appeared inevitable to adopt renewable energies, go towards clean and renewable energy sources and imagine new technologies that stimulate sustainable development, especially the green tide to get rid of pollution and desertification in Iraq

Keywords: Green tide, Pollution, Renewable energy.

INTRODUCTION

Within the framework of modernizing Iraqi lifestyles and institutions and keeping pace with the institutions of developed countries by adopting modern methods and technology, the energy sector in Iraq is one of the relevant sectors direct pollution, based on the world experts warn of the depletion of desertification within the next 50 years. We seek alternative ways to exploit energy and the resulting damages to the succession of life paths, coinciding with the crisis of exploration and oil extraction in large areas of Iraq; The ensuing serious social and environmental repercussions, so this proposition is embodied through Answer to the following problem: To what extent the renewable energy programs in Iraq embody a real will of the state towards adopting Green Tide. In order to answer the problem posed, we decided to divide the research into the following:

1. Theoretical rooting of the green tide.
2. The concept of renewable energy.
3. The reality of renewable energies in Iraq.
4. Using the green tide method as a tool to confront the pollution crisis.

Does renewable energy positively affect sustainable development?

Sustainable development has become one of the biggest challenges faced by various countries, because it is imposed on them by the size of their economic activity in order to increase the rates of development. This should not directly affect the components and elements of the ecosystem. Energy is one of the most dependable sources for countries to achieve development, but in light of its reliance on conventional or nuclear energy, it is considered unsatisfactory for one of the dimensions of sustainable development, which is the environmental dimension. It is an alternative to conventional and nuclear energy, and at the same time it is environmentally friendly, so it found nothing but to exploit natural resources as renewable sources and preserve the ecosystem, so it worked on innovating and manufacturing machines and technologies that are very accurate and sophisticated so that it can convert and store these sources into energy Electricity that benefits from and depends on it in Tamwell as part of its budget, and with several researches and attempts, it was finally able to manufacture these technologies, including solar panels, wind turbines and other technologies, include :

1. Theoretical rooting of the green tide.

The green tide philosophy was an extension of the concept of social and moral responsibility. To reduce pollution problems, this marketing approach appeared in conjunction with an environmental trend aimed at educating people about the importance of preserving the environment and the right to live in a clean and safe environment. It has gone through several stages from the sixties of the last century; It revolves around the commitment of business organizations to deal in non-commodities. These goods are defined as "products designed in accordance with standards aimed at protect the environment and reduce the depletion of natural resources while preserving the original performance characteristics (APHA, 1998), and organizations must work to end the destruction caused by products to the environment, up to the post-consumption and recycling stage) and we can identify general characteristics of green products that It is represented in (Branch, 1999). Less harmful and costly to the environment and more energy-intensive Renewable, uses less energy for non-renewable resources, more achieves the five returns: recycle, reuse, recondition, remanufacture and finally re-repair), The reasons for moving towards green marketing are due to several factors, the most important of which are:

Decline in raw materials: The primary resources in nature are composed of three types, "other than" are limited and are renewable (such as water and air), which have problems due to hazards potential such as the ozone hole, water shortage, and increased pollution (Dronkers and Leussen, 1988; DiLorenzo, et al., 1994), and the second type is represented in limited non-renewable resources, including forests and food, that must be used(-Department of Petroleum Resources in Nigeria, 2002), and the last type is limited non-renewable materials, including oil and coal etc., which will cause real problems when they are depleted, and here we find organizations relying on research and development to find alternative materials that contribute to reducing the depletion of natural resources (Emerson and Abell, 2001).

-High level of pollution: most human activities lead directly or indirectly to harm the environment, the use of chemicals in agriculture, industry and others the areas of work and life, and the resulting harmful waste, have led to a high level of pollution on Earth (FEPA, 1991), and one of the recent studies in the United States of America showed that about half of Americans

tend to pay higher prices for harmless products environment (Gobo, 1998).

Changing the role of governments: Governments differ in the extent of their interest in the environment and its protection. It gives wide attention to the environmental trend and puts pressures on businesses and some the other does not pay attention to the environment, and this weakness is due to the lack of available material resources.

And the preoccupation of these countries with their internal problems, we are certain that they are more important and first in the business calendar, but in general, governments, especially in developed countries, began to provide support to institutions from to move towards green products, such as the British government exempting consumers own Toyota cars with eco-engines (Jacobson, 1987; McLusky, 2004).

2. The concept of renewable energy.

Renewable energy achieves many economic goals; This prompted many countries to pay attention by developing this source of energy and setting it as a goal it seeks to achieve, it can be defined as energy derived from natural resources that are renewable or that cannot be exhausted and renewable energy sources are fundamentally different from fossil fuels such as oil, coal and natural gas, as their wastes do not contain . on gases, and other pollutants as in the combustion of fossil fuels (Raty and Kangas, 2012).

It is produced by wind, water and sun, and is widely used in developed and some developing countries; But the means of producing electricity using renewable energy sources has become common recently, in order to avoid the major threats of climate change due to pollution fossil fuel depletion, as well as the social and political risks of fossil fuels and nuclear energy (Ajmi, 2018).

Renewable energy sources can be divided:

- Hydro energy: Hydro energy is the energy derived from the continuous movement of water which cannot be exhausted, and it is one of the most important sources of renewable energy, or is to take advantage of the movement of water for useful purposes, the use of water energy was before the spread of the availability of energy commercial electric power, in irrigation, grain milling, and the textile industry, among other types among the uses of water power are water wheels, hydroelectric power, and what is meant here is dams and river facilities that produce electricity.

-Biomass energy: It is the energy that is derived from organic materials such as burning plants

bones and animal waste, agricultural waste and residues, and plants used in the production of biomass energy can be fast-growing trees, grains, vegetable oils, or agricultural waste, and there are different methods for treating biofuels.

-Wind energy: It is the energy generated by moving large plates installed in high places by the action of the wind. air, and electrical energy is produced from wind by motors, or three-way turbines a car mounted on a pole that converts the kinetic energy of the wind into electrical energy, double arms when the wind passes over the arms, it creates a dynamic air thrust that causes them to rotate, and this rotation drives the turbine and produces electrical energy (WHO, 2012; Ajmi, 2018) .

-Tidal energy: Tidal energy or lunar energy is a type of kinetic energy which is stored in the currents resulting from the tides resulting from the nature of the gravity of the moon and the sun, and the rotation of the earth, and accordingly this energy is classified as renewable energy; where many coastal countries have begun to benefit from this kinetic energy to generate energy electrical energy, thus relieving pressure from the thermal energy factor, and as a result reducing pollution issued by these laboratories.

-Ground energy: It is the geothermal energy, which is used to increase the temperature in the earth's core by extracting this energy and transforming it into other forms, and in some region cracks and fissures Groundwater seeps through fissures and fissures into depths large so that it touches very hot areas, then it heats up and rises to the top of the hot effervescent. Some of these springs erupt and stagnate several times an hour, and some of them flow continuously and frequently flowing, carrying with it the dissolved minerals from the deep layers of rocks, thus showing what is released .It has hot springs, and people mean this type of spring for healing, in addition to that. There are projects based on exploiting the heat of water released from the earth to generate electricity(Ajmi, 2018).

Solar Energy: the sun is one of the largest sources of light and heat on the face of the earth, and this energy is distributed over the parts of the earth according to its proximity to the equator, and the line is the region that receives the largest share of that energy, and the heat energy generated, the sun's rays are utilized through being converted into electrical energy by the cells. There are two ways to collect solar energy, the first: by concentrating the sun's rays It is collected by convex mirrors, and the complex usually consists of a number of tubes in it water or air. The heat of the sun heats the air or turns water into steam.

As for the second method, In it, the collector with a flat plate absorbs the heat of the sun, and the heat is used to produce hot air or steam (WHO, 2013).

3. The reality of renewable energies in Iraq

The national policies for the development of renewable energies in Iraq were set within a legal framework and regulatory texts, as represented in the Energy Control Law, the Renewable Energy Promotion Law within the framework of Sustainable development along with the electricity law through

CDER - Center for the Development of Renewable Energy, UDES - Solar Equipment Development Unit

And UDTS - Silicium Technology Development Unit

Its tasks are summarized through the regulation of solar energy sites and the reality of wind energy and the development of renewable energy resources; Completion of projects related to renewable energies in the future (WHO, 2013).

4. Using the green tide method as a tool to confront the crisis of desertification and pollution

Through the social responsibility of service institutions and the promotion of scientific, cultural and sports activities that aim to preserve nature by strengthening the citizen's culture and urging him to environmental responsibility and official commitment to preserving the environment in particular. The beginning of the second millennium witnessed signs of qualitative change in the field of global energy sources; where there have been indications of a relative change in the world's preferred sources of energy(Obeidat, 2007) . The International Energy Agency issued in 2011 that the world began to enter pressure as a result of increased industrialization and climate change due to heat and pressure, such as ethane, which is preferred in the petrochemical industry, and on another level for the environment, which causes a real environmental "disaster" and resulted in desertification, drought and climate changes. In Iraq, due to the lack of water resources and the chemical products left by oil refineries are among the causes of global warming, and they are contrary to the ecological system just as it is the case with industrial activities more about this source text source text required for additional translation information (Obeidat and Al-Ani, 2010).

CONCLUSION

Renewable energy achieves many economic goals, perhaps the most important of which are several means of protection the environment, which prompted many countries to take an interest in developing this source of energy and set it as a target .It seeks to achieve, and accordingly it has become an option to go towards the production of renewable energy by sources. Unconventional is inevitable in light of the success of many global experiences, as they are, in addition to the advantages many that characterize it, especially taking into account safety standards, have recorded a decline, remarkable in the costs of the total value, which is what the sector of alternatives to oil that Iraq and the countries of the region intend to activate during the next two decades, or generate this amount of energy, and job opportunities without risks, is unable to provide despite the great expectations that they will limited due to several factors, the most important of which are:

- The high cost of environmental treatments and the general trend towards establishing a stricter regulatory framework for the hydraulic fracturing process used in oil extraction, given the serious environmental damage that accompanies this process accordingly, a set of recommendations can be given:

The necessity of material and moral support and revitalization of research in the fields of renewable energy, especially personality.

Working on carrying out major projects in the desert related to renewable energies, and postponing exploiting oil extraction through the control of high technology related to the consideration of the environment.

– Work to change unsustainable production and consumption patterns that cause the waste of natural resources.

ACKNOWLEDGMENT

Extremely grateful to Mustansiriyah University and to all the people for their cooperation and help to get our data.

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