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The Future of Fossil Energy Sources and The Change of Global Energy Policies

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ABSTRACT

Fossil resources form the basis of energy policies. In this study, fossil energy consumption, environmental effects and new energy policies are included. Increased energy consumption has been studied in many ways. The relationship between fossil resources and climate change was investigated and the effects of carbon dioxide emissions were examined. The efforts of the International Energy Agency to reduce carbon emissions and promote renewable energy have been emphasized. The Paris Climate Agreement, which came into force in order to reduce the effects of global warming and stop the bad situation, was examined and its importance for the states was analyzed.

1. INTRODUCTION

The use of fossil energy resources which are suitable for use in many areas is increasing day by day. As the population of their countries increases and technology develops in this direction, the dependence on energy increases. For this reason, the studies on the extraction of energy resources and delivery to consumers continue rapidly. There are many ways to transport energy, but today the most practical and fast methods are preferred.

Although the increasing use of fossil energy sources is in the best interests of the people, it has been determined in the years when the environmental damage is high. The main reason for the damage caused by coal, oil and natural gas which can be defined as fossil energy is carbon emission. Fossil energy sources increase carbon emissions due to increased use. This situation causes many events such as temperature increase and climate change. The effects of global warming will continue to increase as long as the fossil energy is used unconsciously and no energy savings are made.

Due to the fossil nature of coal, oil and natural gas reserves and negative effects on nature, many countries have started to switch to renewable energy projects. The fact that renewable energy sources are low cost and environmentally friendly is one of the main reasons for their investments.

Fossil Energy Consumption and Their Future

Energy consumption rates have increased in recent years. Energy consumption can be attributed to economic growth. For example, most Asian countries have had a steady rate of economic growth since 2000 and therefore increased energy consumption. In countries such as China, Russia and the USA, energy consumption increased in proportion to economic growth (Enerdata, 2018).

When the energy consumption is examined, it is seen that daily consumption is 95 million in 2015. Most of the energy sources, especially liquid fuels, which increase energy consumption, are used in transportation and industry (USA Energy Information Administration [EIA], 2017: 3).

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There is a link between the economic, socio-cultural characteristics of a society and the use of energy. It can be said that all of the energy used is not commercial and some of it is consumed by traditional methods. Today, many African and Asian countries still lack sufficient energy flow for energy demand. Because of the insufficient energy use in these countries, a number of improvements are required (World Energy Council [WEC], 2016: 8).

When the last period energy consumption rates are analyzed, it is seen that natural gas, renewable energy and oil increase respectively. However, it is known that oil is the most preferred and used fuel in energy demand and consumption. The use of coal decreased in contrast to other energy sources. Renewable energy demand and consumption increased (BP Global, 2018).

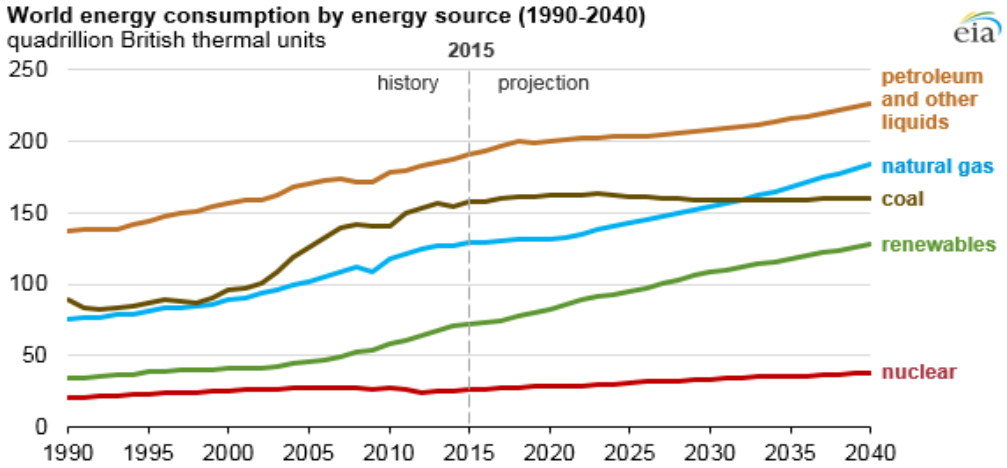

Fig. 1. World energy consumption by energy source
Source: Energy Information Administration (2017).

2. The Environmental Damages of the Fossil Energy Resources

Carbon dioxide, one of the greenhouse gases, is known to be important for maintaining the energy balance. As a result of the studies carried out in 2012, carbon dioxide emission increased by 40% compared to the 1800s. One of the most important reasons for this increase is the actions of people (Cicerone and Nurse, 2014: 5).

The amount of carbon dioxide present in nature has continued to increase in recent years. The average carbon monoxide produced by industrial production and existing fossil fuels is 8 gigatons. In addition, it was determined that the increase in carbon monoxide in nature was 4 gigatons. According to scientific researches on nature changes and global warming; There is no clear evidence of significant and direct differences in climate and nature. Changes in nature and climatic differences are characterized by gradual, medium, and complete. These qualities are clarified within the scope of ordinary natural phenomena (Robinson, et all. 2007: 83-85).

Non-renewable energy sources are known as one of the main causes of climate change and global warming. The commercial dimension of fossil resources such as coal, oil and natural gas is important. It can be said that the mentioned fossil resources cause many material losses except production and sales prices. Environmental pollution caused by the extraction and use of fossil sources and the emergence of many diseases constitute a part of the material damages (Union of Concerned Scientist [UCS], 2018).

3. New Energy Policies and Renewable Energy Transformations

The international energy agency, in which 30 countries are involved in global energy studies, are producing projects to reduce the amount of carbon monoxide in nature. The international energy agency has identified what needs to be done to reduce the amount of carbon monoxide in nature and to have a clean environment. Things to do; Reducing carbon monoxide emissions and acting as quickly as possible to focus on these policies can be listed as the purpose of developing resources known as clean energy and increasing investments (International Energy Agency [IEA], 2018).

The first thing that needs to be done in order to benefit more from renewable energy sources is that governments form policies in this direction. Current energy policies have begun to be developed and incentives and investments towards renewable energy have increased in the recent period. The key to the development of this sector is the concentration of global energy policies on renewable energy. In addition, renewable energy resources that states can produce without being dependent on foreign countries come to the fore. The export-import processes prior to the consumption of fossil resources and the uncertainties in pricing increase the orientation towards renewable energy (Kılınç-Ata, 2015: 68-69).

As a result of problems such as global warming and climate change, the Paris agreement was adopted in 2016. With this agreement, many decisions on climate change have been taken and countries are expected to comply with these decisions. It has been determined that developing and underdeveloped countries should be supported in order to comply with the decisions taken. The Paris Treaty acted as a road map for policies on climate change (United Nations, 2018).

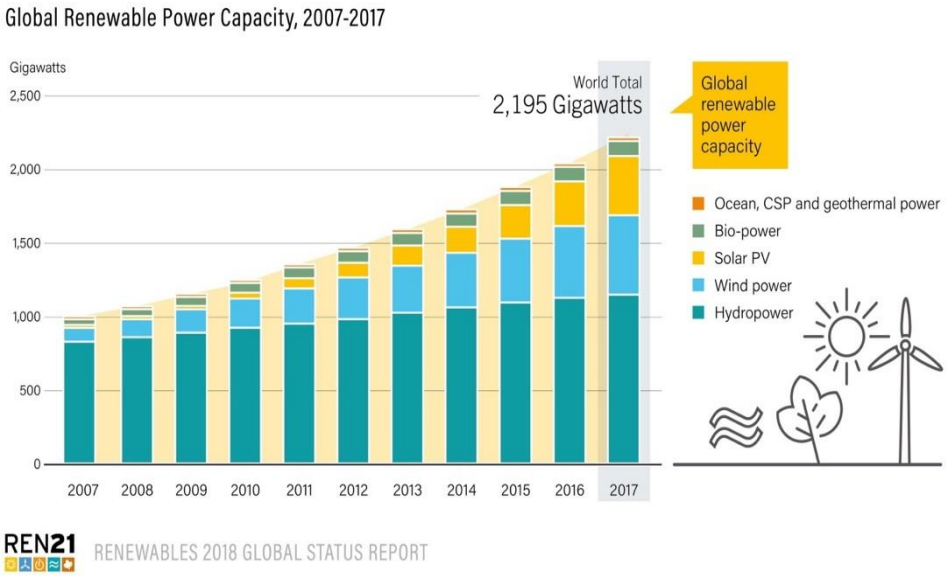

Fig. 2. Global renewable power capacity
Source: REN21

4. Conclusion and Recommendations

Fossil fuels are still important today and are at the core of imports and exports. With the development of technology, the increase in the dependence on energy caused more energy consumption. Until recently, countries have intensified their policies on fossil energy sources. However, the exhaustion of these resources as well as the great damage to the environment increased the work of renewable energy.

Due to the increase in the amount of carbon monoxide in nature and the effects of climate change, the states have sought solutions. Reducing carbon monoxide emissions generated by fossil fuels has been targeted and focused on renewable energy projects. Although there are studies and renewable energy investments to date, countries need to focus more on this area. States should fulfill the requirements to reduce the effects of global warming. It should be remembered that the problem of climate change affects all living things.

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