

Chapter 1

Global Energy Crises: Measures Taken and Policies Adopted in the Recent History

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ABSTRACT

Recent events like the COVID-19 pandemic and the Russia-Ukraine conflict have disrupted the supply-demand balance and triggered a new energy crisis, impacting the world economy. The rapid increase in the world's population, coupled with industrialization and urbanization, has exacerbated energy demand issues, affecting countries worldwide, especially the EU. As a result of these developments, countries have been prompted to take new energy measures and formulate policies to address the energy crisis. This study examines historical perspectives and conducts a comparative analysis of energy crises from the past to the present, focusing on the current energy crisis and the measures taken by various countries, including the EU member states. The study aims to explore how crises shape energy policies, how countries evaluate “opportunity windows” for new/alternative energy sources and technologies in response to crises, and how they present potential alternative energy sources for the future through the discussion of adopted energy policies.

INTRODUCTION

Today, it is realized again that the peoples of the world, who are more connected to each other with the effect of globalization and experience a “time-space compression,” actually form a “risk society.” In this context, Ulrich Beck’s conceptualization of the ‘risk society,’ which connects the idea that global dangers impact large populations with the random, unconscious, and uncontrolled experiences of modernization, appears to be a valid concept. This concept reminds us that the world’s societies now have

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more invisible boundaries and exemplifies how any regional crisis can quickly create a global impact. Because risks are uncertain and unpredictable, it is difficult to take precautions against risks. As seen during the pandemic, these risks emerge within a specific geography, yet they can easily disseminate worldwide and affect everyone. When the effects of these crisis examples are examined, it also facilitates the understanding of globalization's roles in the military, political, economic and sociological dimensions of nation-states. With the 2022 Russia-Ukraine war, the world has faced a new crisis that will likely start a new era after the Cold War, or even be called the post-Cold War era. In addition, this war started while the effects of the COVID-19 epidemic on the world economies and the period of struggle continued. With the effect of the China-USA trade war that occupied the global economy before and after the pandemic, this new crisis disrupted the balance of supply and demand, climate crises and the existing balances in all countries trying to repair their disrupted supply chains.

The continuous increase in the world population, the acceleration of industrialization and urbanization have a parallel impact on the need for energy, resulting in a continuous increase in energy demand and consumption. On the other hand, when we examine the world in general, it is observed that the most energy consumption is in the EU countries. At the same time, the fact that the EU member states lack sufficient resources to meet the increasing energy needs leaves it with a difficult struggle in the energy field. Another reason for this problem is that the EU countries, find themselves in an externally dependent position concerning energy resources. As a consequence of all these developments, the "new great energy crisis", which corresponds to various dimensions of globalization, especially the economy, has rapidly affected the whole world, especially Europe. This situation has also necessitated the formulation of new policies and the implementation of new measures. European countries, relying on Russia for energy supply, initially imposed sanctions on Russia with a united approach during this process. In return, they faced energy shortages and hiked prices. While the Russia-Ukraine war continues, the fears regarding the rapidly rising gas and oil prices as well as supply security, also affect the global energy markets to a great extent. The new energy crisis has deepened due to the rapid increase in the prices of all energy sources, ranging from natural gas to coal.

This historical process has also led European countries to seek new alternative sources for the following few reasons; (1) the decrease in energy supply from Russia, which has been going on for many years or even coming to an end, (2) the decrease in the energy provided by hydroelectric power plants due to drought. However, since it is not easy to quickly replace the long-standing Russian supply, EU countries had to implement restrictions and measures on energy consumption, especially in the winter months. On the other hand, the EU countries reviewed their energy policies with suggestions such as the ceiling price application for Russian gas while taking precautions, especially for energy supply security. After the Russia-Ukraine War, however, the energy supply security of the EU's energy policies has yet to be overcome due to the following difficulties; (1) the creation of the European energy market, (2) increasing energy efficiency to contribute to reducing energy demand, and (3) the main challenge in policies that continue to develop in the axis of research, innovation, and competitiveness. The reason for the failure of the EU's policies is that the EU's countries are still heavily dependent on Russia in the short term and their energy supply is unstable. On the other hand, in the historical process, one of the first solutions to overcome energy crises has been renewable energy sources. In this context, renewable energy targets have been determined to be used in industry, buildings, transportation, district heating, and cooling sectors. However, these energy sources are considered as a long-term solution. Considering their reliability, diversity, and costs, as well as their mitigating effects on the climate crisis, renewable energy sources are considered to be essential alternatives in solving energy crises. Another important

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