# THE EUROPEAN ENERGY CRISIS AND ALTERATIONS IN CLIMATE POLICIES[1]

Fatma CENGİZ[1]

Fatih TEMİZ[2]

## Abstract

Addressing the pressing issues of climate change and energy security in Europe is made possible by Repower EU [1], [23]. The project outlines a thorough strategy to encourage the use of renewable energy sources, increase energy efficiency, and make investments in cutting-edge technologies. While though Repower EU confronts obstacles like opposition from long-standing energy interests and the requirement for major infrastructure investments, it has the potential to have a significant positive impact on Europe's economy and environment [24]. Effective implementation, coordination among EU member states, and the creation of beneficial policies and regulations are all necessary for Repower EU to be successful [25].

An important project called Repower EU aims to hasten Europe's switch to renewable energy sources and combat climate change. While recent energy crises and geopolitical unrest have made it difficult to accomplish these objectives, it is obvious that the advantages of a greener, more sustainable future cannot be disregarded in the long run. Reducing greenhouse gas emissions[26], boosting investments in renewable energy sources[26], and moving away from fossil fuels are crucial steps toward achieving a more resilient and sustainable energy system, as stated in the COP26 summit[25] and backed by international organizations and non-governmental organizations. We must continue to give these projects top priority as individuals, communities, and legislators as we seek to ensure a cleaner, more sustainable future for all.

**Keywords:** European Energy Crisis, Climate Policies, Repower EU hydrogen

## Introduction

Climate change and energy security are two of the most pressing challenges facing Europe today. In response to these challenges, the European Commission launched the Repower EU initiative in 2021, with the goal of accelerating Europe's transition to renewable energy and reducing greenhouse gas emissions [4], [2]. The project outlines a thorough strategy to encourage the use of renewable energy sources, increase energy efficiency, and make investments in cutting-edge technologies. Repower EU has a variety of objectives and plans, such as raising the proportion of renewable energy in the EU's electrical mix, remodeling structures to use less energy, and encouraging the use of cutting-edge technologies like green hydrogen and carbon capture and storage.

An important answer to the climate change and energy security issues currently facing Europe is the Repower EU program. To meet the objectives of the Paris Agreement and prevent the worst effects of climate change, we must switch to renewable energy sources. By reducing Europe's reliance on fossil fuels and boosting energy security, increasing the proportion of renewable energy sources in

[1] TESPAM Researcher

[2] TESPAM Climate and Environment Studies Coordinator

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the energy mix can help. The move to renewable energy sources is not without its difficulties, and the Repower EU initiative's success will depend on how well it is carried out and how well the EU member states cooperate.

## 1. The European Energy Crisis and Alterations In Climate Policies

The great havoc of the Covid pandemic has not yet ended, the fatality of the virus has diminished greatly yet its scar is still on global economy and world energy sector. The prices of hydrocarbons dwindled momentously during the last two years. Without waiting for the dust to settle, in a notorious sense, the Russo-Ukrainian War has a put a cherry on top of the pie of world problems. The Russian ambitions are based on topography and history and the Russians are one of the nations mentioned in Prisoners of Geography by the author, Tim Marshall, the vast northern plains put no natural borders[2]; therefore, Russia always looks towards these flat areas to solidify her defences. In this report, a summary of how a greener future path has found an obstacle will be studied[24].

First, as a result of the negative consequences of global warming and climate change, both the initiatives of international organizations and the pressure of non-governmental organizations, many countries, especially Western countries, have to give up on fossil fuels completely and turn to renewable energy resources in order to reduce greenhouse gas emissions in order to minimize environmental damages[3]. Developed countries took a series of decisions in order to make investments in this field. The most recent of these summits, where various decisions have been taken and convened many times since the Kyoto protocol, was the COP26 summit held in Glasgow, Scotland[4]. This framework includes reducing the use of fossil fuels gradually, especially the use of coal, increasing the funds for renewable energy sources, providing the necessary support for the energy transformation and infrastructure from developed countries to developing countries, reducing the carbon emulsion by 55% of the 1990s level. Keeping the temperature rise below 1.5 degrees Celsius and reducing the methane gas emulsion by 30% were agreed[20[19]].

Moving away from coal and similar fossil fuels and investing in renewable energy sources were topics that have been on the European agenda since the end of the Cold War. Many European countries have put the de-coaling policy on their main memos, and the electricity generated from coal in the European continent has fallen by one third over the decades. Green energy plans and the funds allocated for it have focused on renewable energy sources such as solar and wind power. Yet, an unexpected war in the international arena turned all the balances upside down. Along with the Russo-Ukrainian War, Europe's sanctions against Russia caused the latter side to use her energy card[6]. The energy resources from Russia are her biggest standing authority against other European countries – Russia roughly provides 40% of the energy needs of Europe which leaves the continent on fragile terms[7].

In response to this move by Russia, European countries sought alternative coal supplies and allowed the thermal coal power plants, which had previously halted their operations indefinitely or reduced their existing working capacities, to operate at full capacity again. Especially in order to have a problem-free winter, Europe is currently spending most of its efforts on providing energy supply[8]. With the dry climate conditions and the addition of logistical difficulties, it was especially reflected in the increase in energy prices, therefore; while trying to provide additional support to consumers in order to not to create social tension due to cuts in fuel tariffs, the consumers also had to limit the working hours of street lamps, public spaces, main areas and governmental buildings in order to save up on energy. Meanwhile, European countries are planning to use floating terminals between October

and March to process liquefied natural gas imported from elsewhere. Currently, twenty LNG infrastructure projects have been fashioned and funds have been allocated for them[9]. However, by turning Europe towards Africa, it has attempted to establish a supply chain through African hydrocarbon fields. In these studies, Germany plans investments through Senegal, while France and Italy continue their investment researches through North Africa. Although it will be difficult to get a share from other markets with energy-hungry countries such as India and South Korea, and it will cause difficulties for Europe in terms of price. It is easy to see that the European Union has focused on LNG terminals and investments to be made in order to get out of the monopoly of Russia at the moment; this step will cost about €3.7 Billion[11], [7], [14].

Likewise, the USA turned to fossil fuels and nuclear energy resources again after the Russo-Ukrainian War. Furthermore, the USA even started to design local projects similar to the Chinese government by broadening the energy resource spectrum[16]. The Americans, which had already learned from the energy crisis in the 1970s, made large investments after the crisis both to increase the functionality of coal deposits within their country and to facilitate their transfer within the nation, as well as to diversifying other energy resources (including wind and solar energy). Germany and the Netherlands will allow to operate on €4.5 Billion worth of coal to surpass this sudden crisis. As of February 2022, the Biden administration started to follow a European-like policy by giving the green light to the use of oil and fossil fuels for energy production and even accelerating it.

The sudden reversal of the West's policy of gradually reducing the use of fossil fuels and pulling greenhouse gas emissions down to zero both worries the climate and environment-conscious public and non-governmental organizations [22], [13]. The latter sides are in expectation of following a greener path. Following these happenings, developing countries can feel lonelier in their devoirs of reaching cleaner and less polluting futures.

## Repower EU: Accelerating Europe's Transition to Renewable Energy and Addressing Climate Change

Repower EU's objectives and approaches:

A variety of objectives and plans are outlined in Repower EU in order to encourage the use of renewable energy sources, increase energy efficiency, and make investments in cutting-edge technologies[23], [12]. These objectives include reaching climate neutrality by 2050 and boosting the proportion of renewable energy in the EU's electricity mix to at least 55% by 2030. Repower EU also entails actions to boost energy effectiveness, such as remodeling structures to use less energy, and to encourage the use of cutting-edge technologies like green hydrogen and carbon capture and storage.

Impact that Repower EU might have:

Europe might gain significantly from Repower EU in terms of the economy and environment[24]. In particular, the production and installation of renewable energy technology could lead to the development of new jobs and sectors as a result of the switch to renewable energy sources. Repower EU may also aid in lowering Europe's reliance on fossil fuels and boosting energy security. Repower EU may also aid in addressing other social and environmental issues including energy poverty and air pollution. Repower EU may encounter difficulties, however, including resistance from long-

standing energy interests, the high cost of renewable energy technology, and the requirement for substantial infrastructural investments.

Opportunities and challenges related to Repower EU:

Effective implementation and cooperation amongst EU member states are essential to Repower EU's success[25]. The plan calls for large investments in cutting-edge technology and infrastructure for renewable energy, as well as the creation of complementary laws and rules. To ensure that the advantages of the switch to renewable energy are distributed fairly throughout society, Repower EU also has to address social and environmental issues like energy poverty and air pollution. Repower EU provides chances for innovation and cooperation among EU member states as well as for the growth of new markets and technology.

**Conclusion**

The current situation for Europe is – perhaps – temporary and no European country shows any intention to step backwards from environmental goals for the year 2030[9]. However, the fact that investments are not focused on green energy or renewable energy, but rather on LNG and nuclear energy resources, raises doubts about the possible realisation of the commitments. While investments and projects in LNG, in particular, require a long-term (a 20-year period) commitment and high funds to complete, there are concerns that sufficient investments cannot be made in renewable energy resources and that these infrastructures will increase methane gas pollution[21], [17] . In addition, many opinions are being discussed that the amount of carbon dioxide to be released into the atmosphere will be much higher than the use of coal this year compared to previous years. According to environmental perspectives, there are many ideas that a lower level of pollution and higher efficiency can be achieved by mixing green hydrogen technology in infrastructure works for LNG. The European Union has given citizens a whooping amount of €280 Billion since July 2021, the average Joe in Europe is suffering from this big economic hit, however, the EU countries cannot sustain these ongoing subventions[10]. In the UK, it is estimated that 10% of house income will go towards energy consumption bills in this winter, which is about double the amount spent during the previous year[15].

Following this afore mentioned attitude of the West in the search for new fossil fuel resources, climate lobbyists, think-tanks and NGOs are concerned – especially in Europe where climate-related issues are considered[21]. It is also noteworthy that the European Union is the third largest greenhouse emitter after China and the USA. In addition, with the global climate change even the famously green Britain looks dried and yellowish on satellite images[18]. To make things worse, with less precipitation received the capacity of hydropower is going down which further limits the passage towards renewable energy[5].

At the UN's COP27 climate summit in Sharm el-Sheikh, Egypt[21], global leaders will re-discuss the difficult question of how much wealthier nations - typically the heaviest polluters - will support developing countries in the climate transition, and the reachability of their decisions taken at the previous summi [19]t.

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