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The Evolving Energy Relations Between the European Union and the Gulf Cooperation Council/Gulf Countries in the Context of the Recent Global Challenges

Güncel Küresel Zorluklar Bağlamında Avrupa Birliği ve Körfez İşbirliği Konseyi/Körfez Ülkelerinin Gelişen Enerji İlişkileri

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Abstract: This study examines the evolving energy relations between the European Union (EU) and the Gulf Cooperation Council (GCC)/Gulf countries from the perspective of interdependence theory. The EU and Gulf countries have been trying to strengthen their cooperation/alignment against global challenges such as geopolitical conflicts, climate change, diversification of energy sources, and transition to renewable energy sources (RES), particularly through mutual projects and deals in the RE domain. They also seek to balance their vulnerabilities and safeguard the sustainability of their economies in the context of renewable energy transition and/or diversification of energy sources. Against this backdrop, the EU and Gulf countries' energy collaboration highlights that states with different geopolitical contexts can enhance cooperation, achieve mutual gains, and sustain economic/energy goals against compelling global challenges.

Keywords: Gulf, Cooperation, Energy, Interdependence, European Union.

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Öz: Bu çalışma, Avrupa Birliği (AB) ve Körfez İş birliği Konseyi (KİK)/Körfez ülkeleri arasında gelişen enerji ilişkilerini karşılıklı bağımlılık teorisi perspektifinden incelemektedir. AB ve Körfez ülkeleri, özellikle yenilenilebilir enerji alanındaki karşılıklı proje ve anlaşmalar yoluyla, jeopolitik çatışmalar, iklim değişikliği, enerji kaynaklarının çeşitlendirilmesi ve yenilenebilir enerji kaynaklarına (YEK) geçiş gibi küresel zorluklara karşı iş birliklerini/uyumlarını güçlendirmeye çalışmaktadırlar. Ayrıca yenilenebilir enerjiye geçiş ve/veya enerji kaynaklarının çeşitlendirilmesi bağlamında kırılganlıklarını dengelemeyi ve ekonomilerinin sürdürülebilirliğini sağlamayı amaçlamaktadırlar. Bu çerçevede, AB ve Körfez ülkelerinin enerji iş birliği, farklı jeopolitik bağlamlara sahip devletlerin iş birliğini geliştirebileceğini, karşılıklı kazanımlar elde edebileceğini ve zorlayıcı küresel zorluklara karşı ekonomik/enerji hedeflerini sürdürebileceğini ortaya koymaktadır.

Anahtar Kelimeler: Körfez, İşbirliği, Enerji, Karşılıklı Bağımlılık, Avrupa Birliği.

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1. Introduction

The unfolding relations between the European Union (EU) and the Gulf Cooperation Council (GCC)/Gulf countries can be traced back to the 1988 EU-GCC Cooperation Agreement, which regulates their mutual ties on trade, investment, climate change, energy, environment, and collaborative research. In other words, the agreement provides an official framework for their economic and political cooperation. Moreover, the two parties arranged an informal structure for trade and investment relations through the Dialogue on Trade and Investment Issues in 2017 (European Commission Trade and Economic Security, 2024). The dialogue fosters cooperation for their mutual interests and encourages their trade and investment flows. On the other hand, the Gulf countries have tried to diversify their economic/energy sources, which means that they do not desire to rely solely on their hydrocarbon/fossil sources (Salim and Alsyouf, 2020: 1067; Elrahmani et al., 2021: 10; Alharbi and Csala, 2020: 211988; Griffiths, 2017: 12; Rakipoğlu, 2023: 389). To this end, the EU-GCC Dialogue on Economic Diversification project has been launched not only to provide the EU with experience and expertise but also to transfer international knowledge and practices to help the GCC countries achieve their ambition for economic diversification strategies (European Union External Action (EEAS), 2022, February 3; European Commission Trade and Economic Security, 2024).

With the help of bilateral agreements, investments, and projects, the EU and GCC countries' economic/trade cooperation has significantly grown over the years. The EU is the second-biggest trade partner of the GCC countries, following China, which accounts for 12.3% of the GCC's total trade in goods in 2020. Also, the EU ranked as the GCC's first import partner, with 17.8% of its total imports to the EU, and the fourth-biggest export partner, with 6.9% of the GCC's total exports. In another calculation to evaluate the sum and the value of their cooperation, the EU's imports amounted to 29.6 billion euros, while its exports totaled 67.5 billion euros. In 2023, their bilateral trade ascended to the amount of 170.1 billion euros. More importantly, the Gulf region has found its niche in the EU's trade and investment, which means that it is the EU's sixth-largest export market and investment spot for the EU countries (European Commission Trade and Economic Security, 2024). The given figures in their trade picture clearly reveal that the EU and the GCC/Gulf countries have had prevailing interdependent economic relations.

To make the issue more salient, the recent global challenges, such as geopolitical conflicts, climate change, diversification of energy sources, and the transition to renewable energy sources (RES), have become prominent issues and significantly affected interstate relations. The EU has attempted to foster its relations with the Gulf countries to ensure energy security and obtain clean energy/renewable energy (RE), whereas the Gulf countries were seeking to enhance the energy mix/diversification of energy sources. Unlike conventional energy sources (CES), clean energy and/or RES are environmentally friendly and play an important role in sustaining the above-mentioned countries' economies and energy supplies. They have already made mutual agreements and investment decisions in the RE field, which urges them to escalate their cooperation. Simply put, their cooperation and interdependence have increased in line with their bilateral relations and shared interests in diversifying energy sources and transitioning to RES.

This research mainly examines the evolving energy relations between the EU and the GCC/Gulf countries from the perspective of interdependence theory in International Relations (IR). Due to global challenges/international incentives such as geopolitical conflicts, climate change, diversification of energy sources, and transition to RES, the EU countries have been willing to improve their energy relations with the Gulf countries, which possess rich hydrocarbon resources and potential RES. In other words, global challenges led the EU to enhance strategic cooperation/alignment with the Gulf countries, particularly in the energy domain, to safeguard energy security, meet increasing energy demands, and reduce the risk/vulnerability in energy supply and transition. Thus, the EU overlooks its priorities/sensibilities in terms of normative expectations, such as political, economic, and social norms/values within its borders and in its relations with others, and seeks to improve its relations through an interest-driven policy and pragmatic approach.

The research employs a theory-driven qualitative methodology to analyze the EU and the Gulf countries' evolving energy relations. It explores how global challenges/international incentives act as independent

variables that directly influence and reshape the EU and the Gulf countries' energy relations/energy cooperation, which is conceptualized as the dependent variable. In other words, the EU and the Gulf countries' energy cooperation as the dependent variable is shaped by a complex interplay of economic, political, and environmental dynamics generated by the global challenges. The analysis is grounded in both primary and secondary sources, including official documents, policy papers, and scholarly literature comprising peer-reviewed articles, academic books, and institutional reports. By integrating theoretical insights of the independence theory in IR with empirical data, the research attempts to offer a comprehensive understanding of the dynamics underpinning the EU-Gulf countries' evolving energy relations/cooperation.

While the EU-Gulf countries' relations have largely been studied through the prism of fossil fuels and economic interactions, the impact of the recent global challenges, such as geopolitical conflicts, the transition to RES, energy diversification, and climate change, on these relations has received only limited scholarly attention. Building on this, the research addresses an underexplored yet unfolding dimension by analyzing the EU-Gulf countries' relations/cooperation through the lens of Keohane and Nye's interdependence theory. In doing so, it endeavors to make a modest contribution to the limited discussions in the literature.

The article is divided into five sections. Following the introduction, the first section highlights the theoretical framework, focusing on the interdependence perspective of International Relations (IR). The second section attempts to examine the EU and the Gulf countries' energy policies and evolving approaches to renewable energy sources (RES) in response to global challenges. The third section demonstrates the EU and the Gulf countries' growing cooperation in the renewable energy field. Finally, the article analyzes the research findings and proposes future trajectories in the context of the EU and the Gulf countries' recent energy and economy-based relations. Despite their geopolitical divergences and normative differences, the evolving economic relations and/or cooperation, especially in the RE sector, prove the increasing interdependence between the EU and the Gulf countries. Their interdependent relations facilitate more stable and dynamic relations between the two parties in the future by enhancing their global standing. Also, their bilateral relations may promote shared values rather than ignoring differences.

2. Theoretical Framework: Interdependence Theory of International Relations (IR)

States/governments desire to maintain relations with others, which motivates novel changes and multifaceted interactions in world politics. Thus, it is not easy to understand and explain the events/states' interactions through the old patterns/approaches in International Relations (IR) (Keohane and Nye, 2011: 3-5). To put it concretely, Robert O. Keohane and Joseph S. Nye (2011: 5-51) criticize the neo-realist analysis of world politics after the Second World War and offer their explanations/assumptions for the common IR concepts, such as the international system, power, and actors. They mainly attempt to explain world politics and the complex relations among the states from their theoretical perspectives. In this vein, their theoretical perspective/complex interdependence, which seeks to explain the factors affecting world politics/events, can be considered a great challenge because world politics is not homogeneous, which means that conditions can change significantly over time (Keohane and Nye, 2011: 49-51).

Keohane and Nye (1987: 727-729) benefit from neo-realism and liberalism without rejecting either to develop their perspective on interdependence in states' interactions. They contend that states aren't the sole actors in the international system. Non-state actors such as international organizations and companies can also play essential roles in political and economic issues (Keohane and Nye, 1973: 162), and interactions among the actors are highly complicated and multifaceted (Walker, 2013: 149-150). Their complex interdependence is primarily based on three key features. The first is multiple channels, which pave the way for linking states, political elites, and organizations through formal or informal ties in interstate, transgovernmental, and transitional relations. The second is the lack of hierarchy over the various issues, which implies that there is no clear or consistent hierarchy in the agenda of interstate relations (Keohane and Nye, 2011: 18-19). In other words, high and low politics are intertwined with each other (Walker, 2011:

150). The third is the minor role of military force in states' interactions, which indicates that when complex interdependence prevails, the governments/states do not use military force against other governments/states to solve the conflicting issues. More notably, military force is very costly for governments to achieve their objectives (Keohane and Nye, 2011: 14-21).

In world politics, Keohane and Nye (2011: 7) define dependence as a situation in which the behaviors of a state are determined or influenced by an external power, whereas interdependence is defined as a situation in which states or actors mutually influence each other, and thus, dependence becomes reciprocal. The increase in interdependence among states' contemporary interactions, seen more in the economic fields, has led states to cooperate and even sometimes integrate with other states (Alagöz, 2016: 35). More precisely, the use of military force tends to decrease in states' interactions due to the calculations of cost effects. Theoretically, it is argued that when interdependence is dominant in interstate relations, it may lead states to cooperate or integrate more, as it will create an environment in which international conflict will be eliminated or reduced (Gürkaynak and Yalçıner, 2009: 74; Pulat, 2018: 100; Alagöz, 2016: 33-56; Gartzke and Westerwinter, 2016: 328; McMillan, 1997: 35-39; Polachek et al., 1999: 418). Based on such liberal arguments, interdependence may reduce conflicts between states and allow for establishing more stable forms of relations, which would affect the international system as well (Keohane and Nye, 2011: 7).

Regarding the relationship between power and interdependence, Keohane and Nye (2011: 10-16) highly value the concepts of sensitivity and vulnerability. States feel sensitive to the changes in their trade ties when they suffer costs in the short term, but can compensate for them in the long term through effective policy changes. On the other hand, states become vulnerable if they cannot compensate for the costs through policy changes (Blanchard and Ripsman, 1996: 226). They try to explain the given concepts through the states' oil demands/imports and oil prices. The US oil imports are lower than Japan's, which makes the US less sensitive to the shifts in oil prices. A rise in oil prices would probably affect the US economy less as the cost to the US economy would be lower due to the minor oil requirements in the country. In sensitivity, they both feel the liability towards the costly effects of the situation and the politics they encounter. On the other hand, in vulnerability, they feel liable to suffer the costs of the situation and politics, even if they overcome the difficulties with the political decisions. In this case, the costs of the changes that the actors encounter may affect them and/or threaten them. Moreover, oil-producing countries can, therefore, use oil as a source of power, but their rivals' level of vulnerability determines the degree of this effect (Keohane and Nye, 2011: 10-11).

Political measures and changes in situations can create alternatives that reduce/prevent vulnerability over time (Nye, 2020: 8). In this context, alternatives are the most critical factors that can change the level of vulnerability. States that find alternative policies can reduce their vulnerability in the face of a challenging situation and/or change in their relations. From the perspective of Keohane and Nye (2011: 11), the rival states A and B, which meet their oil demands from abroad at the same rate, are equally sensitive to any rise in oil prices. When A finds an alternative and replaces this cost with domestic resources, and its rival B cannot generate an alternative, A feels less vulnerable than B. From the given representative case, it can be concluded that the states' vulnerability and sensitivity rates differ. Additionally, states rationally seek to adopt proper policies, as much as they can, to reduce their costs in the face of the constraints imposed on them (Keohane and Nye, 2011: 11-12). More importantly, sensitivity is more related to the economic situation, while vulnerability is more related to the political situation. Eventually, sensitivities and vulnerabilities impose costs on states in the system. Thus, the interdependence theory emphasizes that the cost effect is a significant factor in interstate relations over and above "mutual benefits". Costs are created intentionally and/or directly by another actor as the developments/changes in one actor affect the situation in the other.

The interdependence between actors may not be equal, which indicates the existence of an asymmetric relationship between actors. The nature and rate of interdependence among actors create a power relationship. That is, the relatively less dependent actor has more bargaining power and/or is less likely to be affected when relations change. In this connection, interdependence can influence the behavior of other actors (Kroll, 1993: 322-323; Keohane and Nye, 2011: 8). In asymmetrically dependent relationships, the

less dependent actor can naturally achieve its objectives more efficiently and/or manipulate the relationship to achieve its objectives/interests (Alagöz, 2016: 35; Keohane and Nye, 1973: 160). More specifically, states interact with each other in the international system, regardless of economic, political, social, military, and security goals, and this interaction creates some costs for the parties, which is, in fact, a distinctive feature of interdependence (Alagöz, 2016: 36). In brief, there is no equal or balanced impact/cost in an interdependent relationship.

On the other hand, it is hard to calculate precisely the benefits and costs of interstate relations because the nature of the relationship and the values of the actors are influential in determining which ones, benefits or costs, in their interactions are more weighted (Keohane and Nye, 2011: 8). It is also hard to contend that the advantageous side in interdependent relations is always large states (Keohane and Nye, 1998: 87). Small states can also influence the foreign policy behaviors of large states depending on the degree of dependence and interdependence (Alagöz, 2016: 38). Conversely, interdependence can sometimes pose particular problems for large states/major states, while small states may be more relaxed in their decision-making process due to their governing structures than large states, and/or they may reduce their benefits or costs by generating alternative policies (Nye and Keohane, 1972: xx).

As for some types of interdependence, including environmental issues, power can only be generated when acting together with other actors (Nye, 2020: 11). Uncertainties about the extent of environmental issues, causes, and costs often lead to a lack of international cooperation. Governments or decision-makers prefer to avoid taking actions that require them to bear some costs in the short term, as they calculate that they'd bring uncertain benefits in the long term (DeSombre, 2009: 152). On the other hand, in environmental problems, if one of the major actors refrains from cooperation, it can seriously weaken or prevent the problem from being solved. If, for example, one of the significant states does not act in concert and/or does not cooperate in reducing emissions of atmospheric pollution, it undermines the achievements of the other states and/or global environmental improvements. In other words, the non-cooperation or unwillingness of a major state to cooperate against a common threat/environmental issue that concerns all states in the system leads to the inability to strengthen cooperation sufficiently and reduce its effects. Such approaches are more similar to those of security issues than to economic cooperation, since states that are not parties to security agreements can influence the functions of the security system. In economic cooperation, if states do not participate in a trade agreement, they cannot benefit from its advantages. Nevertheless, participating states can maintain the agreement and benefit from its advantages (DeSombre, 2009: 149-150).

Sometimes, a few small states may be particularly interested or willing to take the lead, even though it is recognized that there are common gains to be made from environmental cooperation. They may organize meetings or look for ways to persuade other states to cooperate. Often, the means of persuasion or coercion is not military but economic power. Developed states bear the financial burden of convincing other states in these agreements and/or providing technical assistance to persuade other states in these agreements as well. There is a mutual interdependence that can influence the political arrangements used to mitigate international problems in environmental issues, and there is a potential for countries to generate different sources of power, including the capability to influence the structure and process of international cooperation (DeSombre, 2009: 156-159). Finally, collective action is necessary to protect the ecological or mutual economic system in which allies are affected and counter threats (Keohane and Nye, 2011: 8). In this context, states are driven to build "strategic cooperation" with others to respond to common threats and/or reduce costs/vulnerabilities.

3. The EU and Gulf Countries' Approaches to Renewable Energy (RE)

On the development of the EU's Sustainable Environment and Energy Policies, the 1972 European Council Meeting emphasized the necessity of an environmental policy within the economic development framework and called for an action program in this direction. In the following years, environmental policies became the EU's official policy, and the EU decided to integrate them into all sectoral areas. In 2009, with the Lisbon Treaty, the action against climate change became a specific objective of the EU. Last but not

least, climate, environment, and energy policies were determined to align with the targets outlined in the 2015 Paris Agreement. The agreement legally binds the world nations, including the European and the Gulf countries, to combat climate change and its effects (Malik et al., 2019: 20806-20807). It also underlines that using clean energy sources/renewable energy sources (RES) such as solar energy, wind energy, bioenergy, and hydrogen energy rather than fossil fuels is more important for the world's future. Contrary to the commitments to the Paris Agreement, the world does not prosper to meet the objective of capping global warming at 1.5°C, which is the reference target of the agreement, by jeopardizing the global clean energy transition route (European Commission, 2023, September 8).

The Paris Agreement drives the countries to initiate economic and social transformation (United Nations Climate Change, 2015). The EU adopted the European Green Deal in this direction by setting various targets. The deal's main objective is to achieve the 2015 Paris Agreement's goals and realize large-scale economic and social transformation within the EU borders. The deal makes a great effort to shift the European economy and consumption patterns, which means that the EU will change its relations with its neighbors and reshape its global policy priorities (Leonard, Pisani-Ferry, Shapiro, Tagliapietra, and Wolff, 2021, February 3). Furthermore, comprehensive policies have been developed to achieve the carbon-neutral climate target in 2050, and more targets have been set accordingly. In this regard, renewable energy (RE) has been an important instrument/momentum of policy and change within the European energy system. The targets and policies set in the European Green Deal, including the reduction of carbon emissions, have been legalized within the EU since 2020. The EU has endeavored to keep the global temperature increase below 1.5°C and to set targets compatible with the effects of climate change. Based on the European Green Deal, the EU intends to create the first climate-neutral region, safeguard economic development, and assist the other regions in this direction (European Commission, 2024). Moreover, RE has a vital role in the energy transition, as it can reduce the European Union's dependence on external suppliers. By enlarging the RES/energy mix, the EU desires to reduce its vulnerability to drastic changes. Hence, it looks for ways to increase the share of RE in its energy use/mix. It has renewed the share of various RES in total energy consumption to 42.5 percent (European Commission, 2023, March 30; European Commission, 2023; Payne, 2023). With the EU's published directive, the previous targets have been revised, and the use of RE has been updated and encouraged as a significant objective of the EU's energy policy (European Union, 2024, July 16; European Parliament, 2021).

When allies are affected and/or counter threats, especially in environmental issues, they act collectively to generate power and protect their interests and benefits (Nye, 2020: 11; Keohane and Nye, 2011: 8). The EU countries, together with the same common goal, tried to make political decisions to protect the environment in line with their interests, increase their competitiveness, meet their energy needs, and reduce their energy dependence. Through their shared interest-driven policies, they zeroed in on RE required for heating, lighting, production, and industry (Adıgüzel, 2018: 54). In other words, energy security and environmental issues played a significant role in the EU's preference for RE and formulation of the regional energy policy (Lucas et al., 2016: 1043).

While trying to develop/diversify their energy sources, the EU sought proper international partners as well. In 2022, it attempted to build a strategic partnership with the Gulf countries on key policy areas, including energy policies (EU Monitor, 2022, May 22). By doing so, it tried to pursue a strategy to strengthen its position in the Gulf region by deepening ties with the Gulf countries in various fields, such as climate change, trade, investment, energy security, humanitarian aid, peace, and stability in the region (Bianco, 2023, May). This situation paved the way for the development of cooperation and joint projects in bilateral relations. While determining its energy policies, the EU generally focused on objectives such as environmental sustainability, energy efficiency, and transition to RES. In this direction, it is seen that the EU tends to follow the same principles in its relations with other countries. It also uses various instruments to promote and support its energy policies internationally. In this context, multilateral platforms and projects in which the EU provides incentives for clean energy/RE have emerged.

The EU-GCC Clean Energy Network II has tried to improve the ties to clean energy technologies by using new structures and instruments of mutual interest. It became a catalyst and an element for coordination

for developing energy cooperation between the EU and the Gulf countries by supporting various initiatives that help joint research and development of joint projects in the field of clean energy/RE technologies in the Gulf countries. It also promotes joint actions among the EU and GCC stakeholders (European Commission, 2017, May 11). Theoretically, the EU should incur costs such as imports, direct investment, and institutional/universal norms that the EU considers in its relations with other countries towards the Gulf region to balance/reduce its share in the cost of economic/energy interdependence.

The Gulf countries demanded to diversify their economy and/or adopt RE into their energy mix so as not to rely on their hydrocarbon sources/fossil fuel reserves, which allows them to reduce over-dependence on fossil fuels and pursue a sustainable energy future (Praveen et al.: 6). Specifically, they sought the implementation of international policies and projects for economic diversification by shifting hydrocarbon-dependent economies (Rakipoğlu, 2023: 387-389) that the Gulf countries depend directly on hydrocarbon resources around 75% (Devaux, 2023, September 3). They aimed to use the RES within the framework of new projects, mainly utilizing solar and wind energy accordingly. The GCC/Gulf countries installed total RE capacity, which reached 836 MW, of which wind energy capacity was 16 MW, solar energy capacity was 782 MW, and bioenergy capacity was 38 MW. Moreover, they projected RE capacities in 2030 to tackle climate change issues and diversify energy sources (Praveen et al., 2020: 5-6). The figures reveal the determination of the Gulf countries on energy mix and climate change. If the Gulf countries can achieve their RE deployment target, they will ensure nearly 350 million barrels of oil consumption and reduce almost 140 million tons of carbon emissions by 2030 (IRENA, 2019b). The Gulf countries' effort to deploy RE will contribute to an amount of approximately USD 40-76 billion in discounted fuel savings, which equals 2 billion barrels of crude oil in cumulative fuel savings (Praveen et al., 2020: 5).

Additionally, the Gulf countries are ambitious to decarbonize their electricity production by generating electricity from RE or accelerating natural gas production to meet local energy consumption (Devaux, 2023, September 3). Thus, the Gulf leaders seek to replace energy sources with lower carbon emissions and increase the proportion of RE in their energy mix agendas. In this vein, the UAE pursued an energy strategy with an objective of 44% RE in its power supply and a 70% reduction in its carbon emissions by 2050 (IRENA, 2019a; Pagliaro, 2019: 1452). It launched significant solar energy projects/stations, such as the Noor Abu Dhabi Solar Power Plant, the Shams Solar Power Station in Abu Dhabi, and the Mohammed bin Rashid Al Maktoum Solar Park in Dubai (Emirates News Agency-WAM, 2023, May 10). The Noor Abu Dhabi Solar Power Plant project can be considered one of the most significant projects in the world, which proposes to reduce the dependence on fossil fuels in the region by increasing electricity generation capacity with the help of this project, based on the use of solar energy. Using 3.2 million solar panels and generating approximately 1,177 gigawatt hours of solar energy per year, the project can meet the country's demands of roughly 90,000 people (Noor Abu Dhabi; Power Technology, 2019, July 1). Sweihan PV Power Company (SPPC)-operated plant, a consortium of Abu Dhabi National Energy Company (TAQA), Japan's Marubeni Corporation, and China's Jinko Solar, supplies the country with RE and achieves its ambition for clean/ RE targets (Noor Abu Dhabi). In this regard, the UAE leadership seeks to foster energy security, reduce dependence on hydrocarbon sources, achieve an energy mix, reach lower carbon emissions, and ensure sustainable development goals by accelerating the transition to renewable energy sources. Additionally, they implemented energy policies to enhance energy goals, compatible with the global energy commitments through the Dubai Clean Energy Strategy 2050 and Abu Dhabi Vision 2030 (Alnaqbi and Alami, 2023: 5-16). To be more specific, the UAE's 2050 energy goals include 44% clean energy, 38% gas, 12% clean coal, and 6% nuclear energy. In the emerging international markets, the UAE leadership attempts to enhance its global position and desires to be an economic hub significantly by hydrogen production by 2031 (Embassy of the United Arab Emirates, Washington, DC, 2024).

The Kingdom of Saudi Arabia (KSA), a leading actor in the Gulf region, is currently working on an urban and economic development project in its territory. The Saudi-led NEOM Project aims to create an economic hub through sustainable energy, advanced technology, tourism, and entertainment. Additionally, the Saudi leadership seeks to diversify its economy and energy sources and create a sustainable economic

development model for its future. It plans to spend approximately 500 billion dollars on this project and to meet its energy demand from RES once the 26,500-square-kilometer model city is established (Arab News, 2019, April 14). In this regard, the KSA has accelerated its energy transition by generating energy equivalent to supplying power to over 520,000 homes in the country. It also continues to develop its US$8.4 billion green hydrogen facility at NEOM, which is considered the world's largest. With the new RE projects, the production capacity is expected to exceed 8 GW (Saudi & Middle East Green Initiatives, 2023, December 04). Additionally, the Saudi leadership determined a regional environmental plan called the Saudi and Middle East Green Initiative (SMGI) to enhance the quality of life and safeguard future generations on land and beyond its borders as well as hosting the United Nations MENA Climate Week and the MGI Summit to create an opportunity for joint actions with the other countries (The Middle East Green Initiative, 2022, November 7).

Sometimes, small states may be willing to take the lead as well. They may organize international meetings to persuade other states to cooperate (DeSombre, 2009: 156). The Gulf countries, such as Qatar and the UAE, took the responsibility for the international organizations/meetings on climate change. The UAE, as one of the key actors in the energy transition in the region and the first Gulf country to pledge to achieve net-zero emissions in the country by 2050, plans to triple its RE capacity by 2030. The UEA's efforts and projects evidently demonstrate its ambition to become a leading country in hydrogen production (Morrow, 2021, December 06; European Commission, 2023, September 2023). Additionally, the KSA has been trying to develop and sell hydrogen production continuously (Çora and Mikail, 2020: 4216). In general, diversification of the energy sources and/or economic incomes accelerated the traditional competition in the Gulf region, resulting in global energy investments and projects (Rakipoğlu, 2023: 387).

To reevaluate the EU and the Gulf countries' approach to the energy issue, they perceive the need for the diversification of energy sources against the global challenges and try to reduce their vulnerability by using their potential and cooperation capabilities.

4. The EU and Gulf Countries' Strategic Calculations and Joint Energy Projects

The political and economic relations of the EU and the GCC/Gulf countries have advanced with mutual agreements and commitments. In 1988, they initiated the EU-GCC Cooperation Agreement to regulate their mutual ties and provide an official framework for their political and economic cooperation. Then, they executed an informal structure for their trade and investment relations, including private sector initiatives through the Dialogue on Trade and Investment Issues in 2017. The arrangements not only helped the EU and GCC countries improve their trade cooperation but also increased their interdependence. The EU became the 2nd biggest trade partner of the GCC countries, just after China, with 12.3% of the GCC's total trade in goods in 2020. In the same year, the EU ranked as the GCC's first import partner with 17.8% of its total imports to the EU and the 4th biggest export partner with 6.9% of the GCC's total exports. Their total trade in goods reached 97.1 billion euros as well. In another calculation, the EU's imports amounted to 29.6 billion euros, while its exports totaled 67.5 billion euros. This indicates that in 2020, there was a trade balance in the EU's average. In the following years, their trade increased. In 2023, it reached 170.1 billion euros (EU's import:76.3bneuros and EU's export: 93.8bneuros). More notably, the Gulf region became significant for the EU's trade and investment, which means that it is the EU's 6th largest export market and an investment destination for the EU countries. The given figures in their trade picture distinctly prove that the EU and the GCC/Gulf countries have had interdependent relations in recent years (European Commission Trade and Economic Security, 2025).

However, the energy relations with the Gulf countries weren't valued as a priority in the EU's political agenda due to the lack of strategic planning, foreign policy, and security approach, and individual efforts of the EU countries. Thus, the Gulf countries intensively improved their relations with other actors such as the USA, the UK, Russia, and China instead. With the global challenges, the EU approached the Gulf countries by changing its political agenda and mindset towards the Gulf countries. In other words, the EU saw the Gulf countries as an opportunity regarding energy security, supply, and transition (Szalai, 2021, December 2). Technically, major states and/or their leadership should bear the costs, strengthen

cooperation, and reduce the global effects of environmental issues (DeSombre, 2009: 149). When the EU delegation, headed by von der Leyen, officially visited the UAE, they signed an agreement and agreed to cooperate with the UAE on global energy issues in the context of the COP28 conference. While shaping its energy policies based on environmental sustainability, transition to RES, and combating climate change, the EU has been trying to improve its ongoing relations with the Gulf countries, which own rich energy sources based on fossil fuels as well as high potential and ambition for RE (Dennison et al., 2022). Based on the given statement, new energy sources urged the EU and Gulf countries to promote economic/energy ties. The EU-GCC Clean Energy Network and the EU-GCC Joint Cooperation Committee sought to endorse strategic cooperation and increase the mutual interest/benefits between the European countries and the Gulf countries (Think Tank European Parliament, 2023, September 27; Abdmouleh et al., 2015: 1189). To put it clearly, the EU and the Gulf countries tried to build strategic cooperation to safeguard energy sources and consolidate their mutual benefits against global challenges.

The EU's Global Gateway policy opened a window for energy cooperation/mutual benefits between the EU and the Gulf investors (European Commission, 2023, September 8). The Gulf countries through the private sector and state-owned companies have invested in RE projects, including solar and wind energy initiatives, as well as research and development efforts in areas such as hydrogen fuel cells and sustainable transportation, mainly to diversify their energy sources and reduce their carbon footprints (Sim, 2022, February 8; Elrahmani et al., 2021: 1-9). Qatar and the UAE hosted the UN Climate Change conferences (COP18 and COP28), respectively held in 2012 and 2023, which shows that they weighed their commitments to environmental issues and transitioning to RES. They especially collaborated with the EU countries on various RE projects, technology transfer, research, and investments in RE initiatives. Also, they participated in joint ventures and deals with the EU countries to develop RE infrastructure and promote sustainable developments (Dennison et al., 2022). With these collaborations, they leveraged expertise and resources from both sides to accelerate the transition to RE.

On the other hand, the EU has tried to reduce its dependence on Russian energy sources after the outbreak of the Russia-Ukraine war, as the Russian leadership uses them as a political weapon (Hall, 2022; Dinçer, 2023: 422). Thus, against the geopolitical conflict, the EU countries attempted new deals with non-EU countries accordingly. With strategic cooperation, the EU would take steps forward in renewables while at the same time helping to achieve the REPowerEU plan, which proposes to reduce its dependence on Russia and move away from fossil fuels. It would also get the CES, such as oil and gas, from the GCC/Gulf countries (Mills, 2022, July 1). Within this scope, Qatar became a protagonist for the EU to reduce its energy dependence on Russia and change its weak geopolitical position vis-à-vis Russia. The Gulf countries own nearly one-third of the world's proven crude oil reserves and one-fifth of natural gas reserves. They have huge capacity/reserves to export to other countries in the world while adding high volumes of CO2 emissions to the global total emission (Bianco, 2023, June 16). More notably, the Gulf countries have clean/renewable energy ambitions with the financial capacity to endorse the required energy transition, environmental goals, and diversification in national energy sources (Salim and Alsyouf, 2020: 1067-1068). In other words, the Gulf countries have potential renewable energy sources for the EU countries. In addition to the environmental and economic calculations, the Gulf countries do not desire to end their oil and natural gas revenues completely due to global uncertainties (Sim, 2022, February 8). The recent deals between the EU and the Gulf countries cover oil, gas, and RE, proving that the Gulf countries seek to use their energy sources balanced way, at least in their short-term strategy, and reduce the cost of their growing interdependent relations.

The following table provides concrete evidence of the evolving EU–Gulf energy partnership. By mapping major agreements between 2022 and 2024, it illustrates how traditional LNG contracts coexist with emerging renewable and hydrogen initiatives, thereby reflecting both the persistence of structural dependencies and the consolidation of a new clean-energy dimension.

Table 1: Selected EU–Gulf Energy Cooperation Agreements, 2022–2024

Year	European Countries & Gulf Countries	Agreement Type	Scope/Description	Duration
2022	Austria-UAE	Gas	LNG cargo for 2023–24 heating season; MoU backing energy security	1 year (from 2023)
2022	Germany-UAE	Hydrogen	Hydrogen transport & technology cooperation	Unspecified
2022	Germany-UAE	Gas	Energy accelerator framework; LNG & Hydrogen cooperation	Timeframe unclear
2022	Germany-Qatar	Gas	LNG supply & energy cooperation (framework)	10 years or 20 years (from 2024)
2022	Germany-Oman	Gas	Energy cooperation; renewables & green hydrogen	Unspecified
2022	Germany-KSA	Hidrogen	Green Hydrogen & ammonia import	Starts 2026; term unspecified
2022	Greece-UAE	Renewable/ Other	Renewable projects & LNG	Unspecified
2022	Greece-KSA	Renewable/other	Renewables, hydrogen, electricity export	Unspecified
2022	Greece-Qatar	Gas	LNG supply & energy cooperation	Unspecified
2022	Hungary-Qatar	Gas	LNG supply (under negotiation)	Unspecified
2022	Italy-Qatar	Gas	LNG supply & North Field East Joint Venture	27 years
2022	Italy-UAE	Gas / Renewable	Energy cooperation; CCS & low-carbon	Unspecified
2023	Germany-KSA	Hydrogen	Green Hydrogen & technology cooperation	Starts 2026; term unspecified
2023	Germany-Qatar	Gas	LNG sales & purchase agreements	15 years
2023	Greece-UAE	Renewable/ Other	Offshore & onshore renewables	Unspecified
2023	Italy-UAE	Renewable/ Other	Energy transition & green projects	Unspecified
2023	Romania-UAE	Nuclear / Other	Nuclear energy cooperation	26 years
2023	France-Qatar	Gas	LNG supply	26 years
2023	Netherlands-Qatar	Gas	LNG supply	26 years
2024	Germany-UAE	Gas	Low-carbon LNG supply (Ruwais)	15 years (from 2028)
2023	Germany-UAE	Offshore wind	UK Dogger Bank South Joint Venture	Unspecified
2024	Germany-Oman	Gas	LNG supply	3 years

Source: Data compiled from EU–Gulf energy agreements signed between November 2022 and April 2024, published in The EU Energy Deals Tracker (ECFR).

The Gulf countries' ambition and efforts toward RE projects indicate the change in the global energy dynamics and an invitation for international investors for mutual benefits (Alharbi and Csala, 2020: 211999). The EU and GCC/Gulf countries signed energy deals intensively in 2022. The EU Energy Deals Tracker/ECFR indicates that the EU member countries, including Germany, France, Austria, Greece, Hungary, Italy, and the Netherlands signed new energy deals with the KSA, the UAE, Bahrain, Oman, and Qatar by aiming to diversify fossil energy supplies to Europe and develop/meet EU countries' short term energy security demand with their own long term goals/policy on energy transition and de-carbonization related with the climate change (Bianco, 2023, June 16; Dennison et al., 2022). The EU countries signed 23 deals with the Gulf countries, excluding Kuwait, of which clean energy was a part, and approximately 12% of the total 183 international energy deals with 40 global partners between January 2022 and April 2024 (Dennison et al., 2022).

Of the Gulf countries, the UAE is a potential actor to be a regional hub for the EU's exports of energy technologies and accelerate technological investments in clean/renewable energy (European Commission, 2023, September 8). The EU countries signed 17 deals with the UAE, which reveals that the UAE has been increasingly improving its relations with European partners through energy deals/commitments. Additionally, the UAE has established a trilateral cooperation agreement with France and India to implement a roadmap for the new joint projects. The initiative covers many fields, including projects on clean/renewable energy and combating climate change in line with the objectives of the 2015 Paris Agreement (United Arab Emirates Ministry of Foreign Affairs, 2023, February 05). This also fosters the UAE's diplomatic and economic impacts on the system and demonstrates its capacity to ally with the major powers in its international relations (Ereli, 2024, April 18).

The EU implemented the EU-GCC Green Transition Project to build a joint platform to exchange practices and expertise between the stakeholders, promote and adopt policies and technologies, and enhance collaborations between the EU and the Gulf green tech companies. The project also fosters a global transition towards a clean energy future, energy diversification, and mutual commitments. Lukasz Kolinski, a diplomat from the European Commission, underscored the significance of the collaboration between the EU and GCC on clean energy transition to achieve their climate goals (European Union External Action Service (EEAS), 2024, April 18). With such projects, the EU tries to build a business environment and reduce its costs during the energy transition period. Investments in sustainable energy fields and the need for natural gas in the EU countries will increase during the transition period. Hence, the EU will continue to purchase oil and gas. In other words, the EU's cost during the transition period will probably increase, and gas imports from the Gulf countries will minimize its costs (Szalai, 2021, December 2). It can be concluded that the EU and the Gulf countries are sensitive to energy diversification and costs. They try to balance or reduce their risks and costs in the energy transition period. Simply put, the EU and the Gulf countries desire to mitigate their vulnerability to energy resources and diversification (European Commission, 2023, March 30).

The dimensions of sensitivity, vulnerability, and asymmetry predicted by the interdependence theory in the unfolding energy relations between the EU and the Gulf countries can be examined with various indicators.

Table 2: Indicators of Sensitivity, Vulnerability, and Asymmetry in the EU–Gulf Energy Relations (2022–2024)

Dimension	Indicators	EU Perspective	Gulf Perspective	Implications
Sensitivity	LNG vs. pipeline gas share; short-term shocks	Diversification efforts; growing reliance on Gulf LNG through long-term deals	Expands exports to Europe while retaining Asian markets	EU highly sensitive to Gulf supply; Gulf achieves market diversification
Vulnerability	Supplier concentration (Herfindahl-Hirschman index (HHI), contract length, and infrastructure dependence	Diversification efforts; growing reliance on Gulf LNG through long-term deals	Expands exports to Europe while retaining Asian markets	EU highly sensitive to Gulf supply; Gulf achieves market diversification
Asymmetry	Renewable/hydrogen capacity; Joint Venture projects; tech transfer	Provides technology, investment, and expertise in hydrogen and offshore wind	Provides financial resources and energy potential; large-scale projects, transition still evolving	Mutual dependence, but asymmetric: EU leads in technology, Gulf in resources

Source: Data compiled from the Energy Deals Tracker (ECFR) and Eurostat.

Renewable and clean energy have been explicitly incorporated in 23 of the 42 EU-Gulf countries agreements signed between November 2022 and April 2024, reflecting the consolidation of a new dimension within the partnership. However, elements of sensitivity, vulnerability, and asymmetry remain significant. Regarding sensitivity, the EU seeks to reduce supplier concentration and dependence on Russia by diversifying partners (European Parliament, 2025, July 30; Eurostat, 2025). However, its reliance on major energy suppliers persists at high levels, especially amid the geopolitical tensions (Guarascio, Reljic & Zezza, 2025: 697-698). Simultaneously, its reliance on long-term LNG contracts with Gulf countries increases exposure to supply fluctuations. Concerning vulnerability, although Gulf countries have substantial production capacity, export security is constrained by transit chokepoints such as the Suez Canal and the Strait of Hormuz (GCC Business Watch, 2025, June 19), as well as the inflexibility of long-term commitments (Dennison et al., 2022). For the EU, dependence on specific suppliers such as Qatar and the UAE restricts flexibility despite investments in alternative infrastructure. Lastly, asymmetry is most evident in renewable and hydrogen projects. The EU provides technology, expertise, and regulatory frameworks, while Gulf countries supply financial resources and energy potential. This creates a relationship of mutual but asymmetrical interdependence, in which the EU retains a structural advantage in clean energy development (Table 2). Over time, increased cooperation in renewables and hydrogen could recalibrate this asymmetry. Persistent geopolitical and transit risks, however, continue to influence the resilience of EU–Gulf energy ties.

Finally, asymmetry is most evident in renewable and hydrogen projects: the EU contributes technology, expertise, and regulatory frameworks, whereas Gulf states provide financial resources and energy potential. This results in a relationship of mutual but asymmetric interdependence, in which the EU retains a structural advantage in clean energy development. Over time, the acceleration of renewable and hydrogen cooperation could recalibrate this asymmetry, while persistent geopolitical and transit risks continue to shape the resilience of EU–Gulf energy ties.

The EU's engagement with the Gulf countries regarding clean energy/RE requires reconsidering some issues. The EU formally prioritizes some political, economic, and social norms/values such as human rights, labour rights, rule of law, gender equality, democratic regimes, maintenance of economic prosperity and social justice, and assurance of economic properties/investments within its borders and in its relations with

others. The EU intends to promote human rights and gender equality in the Gulf region by cooperating with the region's governments, private sector, and civil society (European Commission, 2022, May 18). However, it currently appears that the Gulf countries do not fully comply with the EU's normative expectations. To this end, the EU disregards its priorities/sensibilities and seeks to improve its relations through an interest-driven policy and pragmatic approach. For the Gulf countries' sake, the EU has stepped forward to remove market barriers and create a more suitable business/investment environment (EU Monitor, 2022, May 18). Depending on the EU activities and projects, the EU finds a convenient ground to make new arrangements to remove the barriers and facilitate its relations with its southern neighbors. Thus, the EU tries to reduce the costs and increase mutual benefits in its relations with the Gulf countries. From a theoretical perspective, political and economic tools are the most important power elements that states use to influence the behavior of other states. In other words, power can affect the process and norms of state relations. The theory of interdependence contends that a state with more power can have more influence on another. In particular, it argues that a state with more economic power and/or advantage becomes less dependent, and this situation is reflected in the political and economic practices between states. The states' share in foreign trade or foreign investments also indicates their interdependent relations (Eren and Yantur, 2022: 462). Based on the theoretical insights, the Gulf countries have strengthened their economic and political weight in the international system thanks to the potential of RES, CES, and growing relations with the EU, whereas the EU has found strategic partners to stand against the recent global challenges.

5. Conclusion

The recent global challenges have profoundly affected the energy landscape by compelling the states to acquire an energy mix, which means changing their CES into clean/RES and encouraging international alignments. Against this backdrop, the EU countries have attempted to increase their economic and political relations with the GCC/ Gulf countries. They seek to fulfill their commitments to the 2015 Paris Agreement and safeguard energy security by aligning with the Gulf countries, which offer considerable hydrocarbon and RE sources. On the other hand, the Gulf countries stand for maintaining their geopolitical and geoeconomic position by achieving an energy mix. They have actively pursued RE projects in cooperation with the EU countries, which indicates that the Gulf countries strategically strive to balance their dependence on hydrocarbon revenues, maintain oil and gas exports to preserve their hydrocarbon-based economies, foster RE innovations to meet global climate commitments, and provide long-term economic sustainability.

The EU and the Gulf countries defend reducing their vulnerability to the changes in world politics and climate change despite their geopolitical divergences and normative differences. They have navigated the challenges through pragmatic and interest-driven approaches. The EU leadership has strategically perceived the Gulf countries' RE potential and ambitions to align against the global challenges. They initiated international RE projects to achieve their respective goals. The EU's growing/evolving energy relations with the Gulf countries demonstrate a strategic recalibration of its foreign relations by evaluating short-term energy security and long-term energy/economic sustainability. However, states feel sensitive to the changes in their economic ties when they suffer costs in the short term but can compensate for their costs in the long term through effective policy changes (Blanchard and Ripsman, 1996: 226). While shaping foreign policy and environmental commitments against global challenges to avoid costs and reduce vulnerability, the EU and the Gulf countries should collectively focus on generating common values and gains rather than simply ignoring normative differences/ values, which leads to social consensus and sustainable bilateral cooperation.

On the other hand, the growing economic relations and/or cooperation, especially in the RE sector, prove the increasing interdependence between the EU and the Gulf countries. Interdependence endorses a stable relationship between the states and affects interstate relations and/or the international system accordingly (Keohane and Nye, 2011: 7). Against this theoretical background and the case of the research, increasing

interdependent relations between the EU and the Gulf countries may pave the way for a more stable and dynamic relationship between them in the future by enhancing their global standing.

In conclusion, the EU and Gulf countries' evolving energy relations reveal the complexities of contemporary energy diplomacy and the transformative potential of interdependent relations in response to global challenges, and enhancing a resilient and sustainable international system. They also set a significant precedent for global energy governance and sustainable economic development in a time of unprecedented environmental and geopolitical shifts.

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