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NEW ENERGY ORDER AND MALAYSIA'S GROWING IMPORTANCE

Anıl Çağlar ERKAN[1]

Abstract

The transformation of the global energy landscape and Malaysia's strategic emphasis on energy diversification and renewable energy are influencing the country's future role. Malaysia's energy transition could be seen as a successful model on a global scale. Furthermore, Malaysia has the potential to position itself as a key player in the transition from traditional fossil fuels to more sustainable and renewable energy sources, playing a significant role in the changing global energy landscape. In this context, Malaysia's potential in rare earth elements and other critical minerals positions the country as a strategic supply hub, particularly in the Asia-Pacific region. The growing significance of Malaysia in this area will increase further in line with global megatrends such as energy transition and digital transformation. These developments not only contribute to Malaysia's economic growth but also pave the way for the country to assume a larger role on the global geopolitical stage. Considering all this, this study examines the factors contributing to Malaysia's rising global importance in the context of the shifting global energy landscape, highlighting the country's wealth of critical minerals, which are the most vital components of the renewable energy system, and its ability to process them, thus emphasizing Malaysia's growing importance.

Keywords

Energy Transition
Renewable Energy
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YENİ ENERJİ DÜZENİ VE MALEZYA'NIN ARTAN ÖNEMİ

Öz

Küresel enerji düzeninin değişmesi ve Malezya'nın enerji çeşitlendirmesi ile yenilenebilir enerjiye yönelik stratejik vurgusu, ülkenin gelecekteki rolünü etkilemektedir. Bu bağlamda Malezya'nın enerji dönüşümü küresel ölçekte başarılı bir model olarak kabul edilebilir. Bununla birlikte Malezya, küresel enerji düzenindeki değişimde önemli bir rol oynayarak, geleneksel fosil yakıtlardan daha sürdürülebilir ve yenilenebilir enerji kaynaklarına geçişte kilit bir oyuncu olarak konumlanma potansiyeline sahiptir. Bu doğrultuda nadir toprak elementleri ve diğer kritik mineraller açısından sahip olduğu potansiyel, Malezya'yı özellikle Asya-Pasifik bölgesinde stratejik bir tedarik merkezi yapmaktadır. Malezya'nın bu alandaki artan önemi, enerji geçişi ve dijital dönüşüm gibi küresel mega trendlerle birlikte daha da artacaktır. Bu gelişmeler, Malezya'nın ekonomik büyümesine katkıda bulunurken, ülkenin küresel jeopolitik sahnede daha büyük bir rol üstlenmesine de zemin hazırlamaktadır. Tüm bunlar ışığında küresel enerji manzarasındaki değişim bağlamında Malezya'nın artan küresel önemine katkıda bulunan unsurların irdelendiği bu çalışmada, yenilenebilir enerji düzeninin en hayati bileşenleri olan kritik mineraller bakımından sahip olduğu zenginlik ve onları işleme yeteneği Malezya'nın artan önemine dikkat çekilmektedir.

Anahtar Kelimeler

Enerji Dönüşümü
Yenilenebilir Enerji
Malezya
Kritik Mineraller

Makale Hakkında

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INTRODUCTION

The global energy order is currently experiencing a substantial transformation, which involves a rapid transition from traditional energy sources to renewable energy. This trend has emerged in response to global concerns such as tackling climate change, maintaining energy security, and encouraging sustainable development. In this context, renewable energy is becoming the dominant source of energy production as efforts to reduce dependence on traditional fossil fuels gain traction. Within this process, renewable energy sources such as solar, wind, hydropower, and geothermal energy show great potential. Because using these existing resources can help stabilize global energy distribution and reduce environmental impacts.

The world's energy landscape is transforming because of the limitations associated with traditional energy sources and their environmental impacts. A set of interrelated factors in this process has been leading Malaysia to become one of the leading countries on a global scale. The first of these factors is Malaysia's ability to adapt to the changing conditions of the times. For example, Kuala Lumpur is broadening its energy portfolio by transitioning from petrochemical and natural gas production to renewable energy projects. Moreover, investments in renewable resources such as solar energy and biomass are bolstering the nation's energy self-sufficiency and promoting sustainable development goals. Another factor is the steps Malaysia has taken in relation to critical minerals (CM), whose strategic importance has increased with the energy transition. In this regard, especially in recent days, several developments have occurred that could enable Malaysia to play an active role in the global CM market soon. For instance, the government of Kuala Lumpur said in October 2023 it will permit Lynas Malaysia, which has been operating in central Pahang state since 2012, to import raw materials containing natural radioactive material and process CM until March 2026 onwards a long-running regulatory battle (Chatterjee, 2023). It seems that in Malaysia, interest in mining operations has revived in line with the rise in global interest (ISEAS, 2023).

Malaysia is focusing on ensuring national energy security and supporting regional and global energy stability in line with the global energy transition. Because of that, the alteration in the global energy landscape increases Malaysia's geopolitical importance. In this context, investing in renewable energy sources and CM not only bolsters its contribution to national energy security but also amplifies its impact on international cooperation and diplomacy.

The research questions of this article are as follows; What is the new energy order, and how is it transforming global energy policies? What is Malaysia’s potential in utilizing renewable energy sources, and what are its current policies? How does energy competition in Southeast Asia influence Malaysia's energy policies? What is Malaysia's growing importance to global energy security? This study aims to provide a comprehensive analysis by utilizing multiple methods and techniques while addressing Malaysia's growing importance in the new energy order. The research is designed based on a qualitative approach. To form the foundation of the study, existing academic works, reports, policy documents, and global and regional data related to the energy sector have been examined. A case study focusing on Malaysia's energy policies has been conducted. This analysis has revealed the impacts of Malaysia's energy production, renewable energy capacity, and energy exports. Data related to the energy sector have been compiled from reports by international energy agencies and

statistics published by the Malaysian government. These data have been used to analyze energy consumption, the transition rates to renewable energy, and export figures.

In brief, one of the potential effects of the energy transition process is related to Malaysia's potential role in the new energy order. In this regard, the study claims that Malaysia will soon become one of the most influential actors in the changing energy landscape. Considering all this, this study examines the factors contributing to Malaysia's rising global importance in the context of the shifting global energy landscape, highlighting the country's wealth of CM, which are the most vital components of the renewable energy system, and its ability to process them, thus emphasizing Malaysia's growing significance.

1. Changing Global Energy Order and New Risk Sources

Energy subject has been the focus of political and academic debate for most of the centuries (Spittler et al., 2019, p. 1). Because the energy order fully and obliquely interfaces with environmental, social and economic regimes (Spittler et al., 2019, p. 1). Through these coactions the regimes affect the (sustainable) improvement of each other (Spittler et al., 2019, p. 1). It seems that energy is a main impetus for economic and social improvement as well as environmental and climate problems (Spittler et al., 2019, p. 1). In addition, there has been a system functioning that has somehow been shaped based on the energy resources used by humanity since history. So much so that the system in question has become a paradigm and has led to the establishment of an order accepted on a global scale. In this context, the global energy order can be defined as a structure shaped by the interaction of economic, political, and environmental factors related to the production, distribution, and consumption of energy worldwide. The global energy order has emerged throughout human history with the discovery, use, and management of energy resources. This order has been shaped by the convergence of economic, political, and social parameters relevant to the production, consumption, and distribution of energy.

This order has undergone significant changes throughout history with the dominance of various energy sources in different periods. At the beginning of the 21st century, issues such as energy security, climate change, and sustainable development have become determining factors in the evolution of the global energy order. For instance, fossil-based energy sources have been the main driving force behind the global energy industry since the discovery of coal. However, the expense of energy produced from renewable sources is decreasing quickly, and progress in renewable technologies indicates substantial alterations in the worldwide energy scene by 2040 (Sevim, 2020, p. 57). This potential has become inevitable as present energy-related problems are leading to irreversible harm and emphasizing different energy security challenges during the global shift from fossil-based fuels to renewable sources.

The transition in the global energy order from fossil energy sources to renewable energy sources over the past 100 years is reflected in the changing dynamics of energy geopolitics (Sevim, 2020, p. 57). Significant progress is being made in conventional energy geopolitics while also focusing on clean energy sources in this environment. New factors will emerge as energy geopolitics changes. When evaluating energy geopolitics, it is essential to incorporate the characteristics of the newly developing energy order into the variables. This is the start of a new era in which the global energy system has been restructured. These

considerations will influence upcoming evaluations, including understanding the new formula for the operational equation of the global energy system worldwide.

Viewing the global energy order change as just an increase in the usage of renewable energy sources is inaccurate. Energy transformation requires a major restructuring of the global energy system, which presents a very intricate challenge. Several significant changes have occurred in energy conversion. With the increasing adoption of clean energy, the risks linked to conventional energy geopolitics decrease, while new risk factors stemming from the changing structure of the new energy system are anticipated to emerge (Sevim, 2020, p. 61). For instance, one significant risk factor is the accessibility of certain elements, such as rare earth elements (REE) and CM, which are necessary for renewable energy systems.

In recent years, as energy demand has rapidly increased, the transition from fossil-based fuels to renewable energy has become increasingly important. Therefore, on a global scale, there is currently a shift from a fossil fuel-based energy system to a renewable energy-based system. The transition to renewable energy has gained momentum to reduce dependence on fossil fuels, and in this process, the importance of CM used in technologies such as wind turbines, solar panels, electric vehicles, and storage units has increased. However, the supply chain and production of these CMs could pose potential threats to energy security. CM are natural resources with great economic significance and potential supply risks. These minerals are typically found in limited geographical regions and are controlled by certain countries. For example, minerals such as lithium, nickel, cobalt, and REE are widely used in renewable energy technologies and electric vehicles. Any disruption in the supply of these minerals could threaten global energy security.

2. Energy Security and Critical Minerals

Historically, the approach to energy security has remained widely static, without a globally accepted description (IRENA, 2024, p. 21). In this context, there are still some uncertainties regarding energy security, both conceptually and in terms of the qualities it carries. Perhaps the most important of the ongoing uncertainties is the conceptual ambiguity of energy security and the fact that its dynamism is not fully understood. Because there is currently no consensus on the conceptual front and the fact that it is being addressed from a narrow perspective both makes energy security ambiguous and causes its dynamism to be ignored. Despite this, while the problem of ambiguity caused by conceptual discussions has not been fully overcome, there is a lot of data that shows the dynamism of energy security. Perhaps the most important of these is that the focus of energy security is shaped according to the changing conditions of the age. Energy security, in which the supply, security and distribution of energy resources have played a central role in achieving the economic and political goals of states throughout history, has been addressed in different ways in line with periodically changing threats, resource types and geopolitical developments.

The concept of energy security has been a constantly evolving phenomenon throughout history. From the Industrial Revolution to the present day, energy security has gained numerous dimensions, ranging from the control of fossil fuels to the sustainability of energy supply, from geopolitical risks to combating climate change. However, in the 21st century, energy security continues to be shaped by new dynamics, such as the development

of renewable energy sources, the digitalization of energy infrastructure, and cybersecurity. Accordingly, for some time past, energy security has been redefined based on changes in global energy demand, along with developments in technology, policy, and international cooperation. Therefore, energy security is no longer limited to the supply and security of fossil fuel sources. In this context, the rapid spread of renewable energy sources (solar, wind, hydroelectric) and developments in energy storage technologies have enabled energy security to be addressed in a broader perspective. However, the protection of the main components of the renewable energy system has become one of the main focuses of the new era of energy security. Therefore, there is a new set of risk parameters.

The introduction of risk parameters poses clear and inevitable new dangers to energy security. Nevertheless, these emerging hazards vary in certain ways from those in the conventional energy model. Energy security concerns related to accessing fossil energy sources in traditional energy geopolitics are bringing attention to new challenges. Another challenge arising in energy security is the difficulty of accessing energy sources during the switch to renewable energy sources. In this context, risks related to obtaining crucial minerals for renewable energy technologies have superseded worries about resource access in the modern period. The increasing danger of obtaining crucial minerals presents a major concern for energy security. CM are now crucial for energy security due to their significant mineral features.

The fact that CM is becoming one of the new risk parameters in terms of energy security is that the elements in this group are becoming more and more important strategically with the transition to a system that operates entirely on renewable energy. The strategic importance of CM arises directly from the fact that an energy system powered by zero-carbon technologies differs significantly from a system powered by traditional fossil-based fuels. For example, building solar power plants and wind farms generally requires the use of more minerals than their hydrocarbon-based fuel counterparts (International Energy Agency, 2021, p. 4). However, it is not just the increase in demand that makes CM a risk factor for energy security. This is a problem, but the real factor that makes this increase a risk for energy security is directly related to access to CM because access to CM is becoming more and more complicated every day.

CM are crucial for the functioning of advanced technologies and economies and at risk of disruption to their supply streams (Dou et al., 2023, p. 1). Global economic and technological alterations have created a strong demand for these minerals to meet the net-zero and sustainable development purposes (Dou et al., 2023, p. 1). However, there have been developments recently that CM are turning into a double-edged sword that could pose a threat to energy security in many ways. In this regard, the access problem emerges as one of the main energy security threats. Because the global spread of CM is unbalanced due to geological circumstances (Dou et al., 2023, p. 6). Many CM are spread into developing countries in Africa, South America, and Asia (Dou et al., 2023, p. 6). The spread of CM may not seem like a problem at first glance. However, such an approach is completely wrong. Because the asymmetry in the distribution goes beyond the traditional access problem in terms of energy security. In fact, the access problem expected to arise due to the geographical situation of the minerals has a relatively lower effect compared to other factors. In this context, the real problem is that the

minerals that already have access problems are largely under Chinese control. Because China has an indisputable superiority in this area on a global scale.

China right now dominates much of the global CM marketplace (Coyne and Bassi, 2024). It is the global lead producer of 29 goods, including 22 metals and 7 industrial minerals (Coyne and Bassi, 2024). In situations where China does not establish a full monopoly, it can exert control over the market through 'monopsony' by acting as a dominant and critically important single customer (Coyne and Bassi, 2024). In this context, China has a dominant position on a global scale in terms of minerals. It is possible to support this position of China with some data. For instance, China is responsible for refining 68% of the world's nickel, 40% of its copper, 59% of lithium, and 73% of cobalt (Castillo and Purdy, 2022, p. 6). Undoubtedly, China's rich reserves of CM may not seem like a threat in terms of energy security at present. Therefore, we can only describe this situation as a basis that can turn into a threat. In fact, the real potential threat is China's position on a global scale. It is stated that China carries out 85% to 90% of the global rare earth ore-to-metal refinery and 92% of the global rare earth magnet production (Kelkar, 2024). As a matter of fact, there is a serious expansion of China on a global scale in this field. It is well known that China has been increasingly diversifying its investments geographically and extending its economic reach into mineral-rich countries. Over the past two decades in particular, nations across Africa, South America, Central Asia, and Southeast Asia have received significant financial support from China in the form of loans, grants, and other credits. These investments have been primarily focused on sectors such as mining and energy (Jangra, 2023). Additionally, the value of Chinese investments and new contracts in the metals and mining sector surpassed $10 billion in the first half of 2023, marking a 131% increase compared to the same period in the previous year (Bindman, 2023). This situation undoubtedly means that there is a trend towards China becoming a global authority in the field of CM. Indeed, in an environment where the energy transformation is accelerating, it is obvious that China is experiencing a global power increase in the face of increasing demand for CM. At this point, there is a very serious potential threat in terms of energy security. In fact, the current course of events is turning the problem of access to CM into an even more serious energy security threat and paving the way for a negative situation such as dependence on a limited number of suppliers. Therefore, that it is highly probable that the entire world will face an energy security problem such as becoming dependent on China in terms of CM in the new period. Because China will be a main player in CM at least for the midterm (Asia House, 2024). China currently produces about 60% of the world's REE but handles nearly 90% of their processing and refining (Asia House, 2024). Furthermore, China is a major international investor in both new and existing mining projects throughout Asia and Africa -such as cobalt mines in the Democratic Republic of Congo (DRC)- often backed by direct or indirect state support (Asia House, 2024).

Minerals' important qualities are essential for ensuring energy security. A substantial quantity of CM is extensively extracted and refined, mostly in nations such as China. This scenario could endanger global energy security, as restrictions imposed by these countries on supply networks for political, economic, or commercial reasons could adversely affect other states. Reducing reliance on CM and broadening the supply chain are crucial components of energy security measures.

3. Transformation of Critical Minerals into Potential Threats and its Impact on Energy Security Policies

Meeting the climate change targets by 2050 and keeping the energy transition on course may rely on securing greater access to CM (Ghenai, 2024). However, this transformative effort depends heavily on a few key minerals and elements that are sourced from a limited number of locations (Ghenai, 2024). In this regard, we can say that one of the main areas that policies to ensure energy security will focus on in the new period will be CM. In short, the focus on energy security has begun to shift from historically strategic energy resources such as oil and natural gas to CM. Recent efforts by many countries, including the U.S., to transition to clean energy appear to offer a chance to reduce traditional dependence on oil and lessen the impact of oil geopolitics and the influence of petrostates like Russia (Wong and White, 2023). However, as these nations focus more on clean energy, they are encountering new challenges related to CM and mining (Wong and White, 2023). Therefore, it becomes inevitable that the focus of energy security will shift towards CM.

Although there are many reasons why CM are becoming a major threat, and the focus on energy security is shifting in this direction, there is only one reason. The main reason in question is undoubtedly that the problem of access to CM has become a potential threat to energy security. In this context, two fundamental issues regarding energy security are likely to become the focus of discussion in the coming days. The topics in question are access to CM and becoming heavily dependent on China. Therefore, we can say that soon, the problems that are likely to arise related to CM and China will constitute the main agenda of policies aimed at ensuring energy security. In this context, it is inevitable that CM will become one of the main factors shaping energy security policies. In fact, in recent days, it has been witnessed that many countries around the world have begun to act with awareness of the change in the focus of energy security. So much so that many countries have begun to take measures against CM and China's threat. These measures appear in two forms: individual and collective.

One of the actors taking initiative in the context of individual measures is the EU. In this context, the EU via the European Commission has laid out an ambitious strategy to achieve 'climate neutrality' by 2050 (Gonzalez and Verbeek, 2024). Much of its effort is directed to the access of the CM. With in this framework to satisfy its appetite for nickel, lithium, and other transition minerals, the EU has geared up its trade arrangements with resource-rich countries in the Global South (Gonzalez and Verbeek, 2024). It has also set in motion various initiatives to facilitate the transition, of which the most important are the Green Deal Industrial Plan, the Net-Zero Industry Act, and the Critical Raw Materials Act (Gonzalez and Verbeek, 2024). The most prominent of these measures is the Critical Raw Materials Act. The primary purpose of the Critical Raw Materials Act (CRM Act) is to ensure EU access to a secure and sustainable supply of critical raw materials, enabling Europe to meet its 2030 climate and digital objectives (European Commission, 2024).

Another actor that takes individual measures regarding CM within the scope of energy security is the U.S. In fact, the U.S. has taken various steps in recent years to ensure energy security in terms of CM. These measures were taken to secure access to strategic resources, strengthen supply chains and increase domestic production. Some important measures taken

by the US are Encouraging Domestic Production and Mining, Creating Strategic Reserves, Diversifying Supply Chains, Investing in Innovative Technologies, and Establishing the Critical Minerals Institute. In addition to all this, it is seen that work continues with some legal regulations in the U.S., like in the EU. It is possible to consider The Global Strategy for Securing Critical Minerals Act of 2024 in this context. Through the Global Strategy to Secure Critical Minerals Act of 2024, the United States aims to ensure that its allies and global partners can rely on a diverse and secure end-to-end supply of CM (King, 2024).

While many countries continue to take measures individually, it is seen that similar initiatives are increasing collectively every day. In this context, many states see China as a threat and are seeking cooperation with those who agree on this issue. Regarding this, it is witnessed that some states have taken various initiatives within the scope of establishing various international cooperations in the face of the threat of access to possible minerals originating from China based on CM. Perhaps the most important of these is the Mineral Security Partnership (MSP). MSP seeks to speed up the development of varied and sustainable supply chains for critical energy minerals by collaborating with host governments and industry. This involves providing targeted financial and diplomatic support for strategic projects throughout the value chain (U.S. Department of State, 2023). MSP partners include Australia, Canada, Estonia, Finland, France, Germany, India, Italy, Japan, Norway, the Republic of Korea, Sweden, the United Kingdom, the United States, and the European Union (represented by the European Commission) (U.S. Department of State, 2023). Another important formation is the Quadrilateral Security Dialogue. Quadrilateral Security Dialogue, or 'Quad', which consists of the U.S., Australia, India, and Japan, to protect vital mineral supply chains. In order to counter "the national security threat posed by the People's Republic of China's control over nearly 2/3 of the global supply of CM and for other purposes," a bipartisan group of U.S. senators introduced the Quad Critical Minerals Partnership Act in March 2022 (Liu, 2023).

International collaborations related to CM are not limited to formations such as partnership platforms. However, there is also a tendency towards bilateral or multilateral alliances. It is possible to consider initiatives such as the Multilateral Alliances on Critical Minerals Security and the EU Critical Raw Materials Action Plan in this context. For instance, countries such as the U.S., European Union, and Japan collaborate to secure access to CM via Multilateral Alliances on Critical Minerals Security. In this context, these nations aim to diversify critical mineral supply chains and establish strategic reserves.

The steps taken regarding CM undoubtedly have significant effects. Two of these effects, which are becoming increasingly clear with each passing day, stand out. The first is the implementation of effective measures in critical areas such as energy security, while the second is the increasing importance of certain actors within the framework of these collaborations. As the importance of CM rises, some countries are also becoming increasingly prominent. The latest data indicates that Malaysia is becoming more popular in this regard. The country's rich reserves of CM, combined with its strategic location and industrial strength, position it perfectly to take advantage of this demand (The Sun, 2024).

EU Critical Raw Materials Action Plan: The European Union has developed a series of policies and cooperation agreements to ensure the sustainable supply of strategic minerals and

reduce dependency on external sources. Strategic partnerships with regions such as Africa and Latin America are part of this plan (European Commission, 2024).

4. The Significance of Malaysia in the Field of Critical Minerals

Malaysia has long been one of the key players in the global energy equation. Therefore, it is important not to overlook that Malaysia's significance is rooted in the global energy order, which has historically been driven by fossil-based energy sources. The country holds a particularly important position on the global stage, especially in the oil and natural gas sectors. Malaysia's prominence in terms of oil can be attributed to two main reasons. The first is its oil reserves. With 3.6 billion barrels of oil reserves, Malaysia ranks 28th in the world (Worldometer, n.d.; The World Factbook, 2024). Additionally, the country's oil production is 582,000 barrels per day (The World Factbook, 2024). In terms of natural gas, Malaysia holds reserves of 1.189 trillion cubic meters (The World Factbook, 2024). In line with this, its natural gas production in 2023 amounted to 75.456 billion cubic meters (The World Factbook, 2024). Another reason is its strong companies that operate globally in the fossil energy sector. Petronas, founded on August 17, 1974, is perhaps the most important of these companies (PETRONAS, n.d.). However, over the past decade, there has been a slight decline in Malaysia's significance within the fossil energy order. For instance, Petronas, which ranked 75th on the Fortune Global 500 list in 2013, had fallen to 139th place by 2023 and 201st place by 2024 (Fortune, 2024). Nevertheless, as of 2024, there are signs that things are starting to change in terms of Malaysia's importance. With the accelerated transition to a renewable energy order, it is possible to view Malaysia's growing significance within this context. Because CMs are becoming increasingly significant since they are now considered one of the most crucial risk factors for energy security. It is increasingly important that numerous countries have plentiful mineral resources that are distributed unevenly worldwide. It is feasible to discuss Malaysia's increasing significance in the global arena in this context.

Malaysia's increasing importance in terms of CM can be attributed to three main reasons. The first of these is that the country holds significant reserves of these minerals. Malaysia has rich reserves of rare-earth elements and is a major supplier of minerals, such as thorium and lanthanide. Unique soil components are found in rich cane beds in several locations in Malaysia which is valued at RM 808.6 billion, according to Lim (2023). But according to Ministry of Investment, Trade and Industry (2023, p. 12) Malaysia's mineral resources are valued at approximately RM4.1 trillion. And REE also CM are emerging in Malaysia's mineral industry as abundant reserves are found in states such as Kelantan, Kedah and Perak (Ministry of Investment, Trade and Industry, 2023, p. 14).

Malaysia's significance in CM also lies in its capacity to refine rare-earth elements. Extracting, purifying, and processing rare soil components is a complex technique. While these minerals are plentiful in deposits, only a few countries globally possess the capacity to process them, and Malaysia is regarded as one of the important countries in this aspect (Aziman et al., 2023, p. 1). Malaysia plays a limited role in rare earth elements refining capacity. According to 2010 data, Malaysia's rare earth elements production was recorded at 380 tons. In the same year, China's rare earth elements production reached 120,000 tons, accounting for over 95% of global production. A significant facility operating in Malaysia is the Lynas Advanced Materials Plant (LAMP), owned by the Australia-based Lynas Corporation. This facility

processes rare earth ores imported from Australia and has an annual production capacity of approximately 22,500 tons of rare earth oxides. However, this production capacity meets only a small portion of global demand. Malaysia has a strong energy sector that is dedicated to the production and refinement of rare earth elements. For instance, Australia is the second-largest actor in the global mineral market; however, the concentrated raw material from Australia is enriched and purified in Malaysia. Asia Rare Earth (ARE) and Malaysia Rare Land Company Factory (MAREC) in Perak province are the leading facilities in the country for processing REE (Aziman et al., 2023, p. 3). The Lynas Advanced Materials Factory (LAMP) at Gebeng, Pahang, is presently among the largest, rare earth processing facilities globally (Aziman et al., 2023, p. 3). Malaysia, along with China, is one of the two countries in the world with the capability to process rare-earth elements due to these features.

Malaysia's significance for CM is influenced by China's dominance in the global market. China presently manufactures 80% of REE, with projections indicating a rise to 95% by 2022 (GZT, 2022; Kelemen and Stonor, 2022). It currently dominates worldwide rare earth mining, processing 85% of rare earths and manufacturing 92% of rare earth magnets (Seligman, 2022). Dependence on China for REE is a major concern because of their essential role in military equipment like missiles, warheads, radars, and stealth aircraft (Lee and Dacass, 2022, p. 1; Seligman, 2022). Malaysia is aware of this, as are many other countries. The Malaysian government's recent moves suggest a calculated reaction to the threat to energy security. Malaysian Prime Minister Anwar Ibrahim stated on September 11, 2023, that Malaysia will implement a policy to ban the export of rare-earth elements to prevent the inadvertent exploitation and exhaustion of its natural resources. China is the primary force affecting Malaysia's decision on this matter (Kaur and Shazwani, 2023).

Malaysia's response to China's rare-earth element threat has had two repercussions, impacting both domestic and global levels. Malaysia's increasing importance in protecting national security is clear through its global impact. A coalition of prominent global figures is being established to address China's market supremacy and its impact on energy security. The Quadrilateral Security Dialogue, also known as the QUAD and headed by the United States, is an illustration of this idea. (Liu, 2023). Another organization that opposes China is the Mineral Security Partnership, which is US-led. MSP partners include Australia, Canada, Finland, France, Germany, India, Italy, Japan, Norway, the Republic of Korea, Sweden, the United Kingdom, the U.S., and the European Union (represented by the European Commission) (U.S. Department of State, 2023).

Both formations were established under US instruction with the purpose of addressing the threat presented by China. However, a new common trend has emerged as a result of recent progress. Malaysia's worldwide importance has increased due to various actions taken to counter China's threat, even if it is not part of these coalitions. The U.S. is considered an indicator in the Friend-Shoring Plan, which proposes adding Vietnam, Indonesia, Malaysia, and nations in the Indian Pacific region to the mineral supply chain for geographical variety (Kakışım, 2022; Vivoda, 2023, p. 4).

CONCLUSION

The global energy order has undergone a significant process of change and transformation in recent years. In this context, it is evident that the energy transition has accelerated, especially as today's energy security problems have begun to cause irreversible damage worldwide. However, it is important to emphasize that the energy transition is not an ordinary development. This process is extremely radical and has a complex structure. Therefore, it is crucial not to oversimplify the energy transition and view it merely as a shift from fossil energy sources to renewable energy. Such an approach would be highly limited and fail to recognize the vital importance of the process. The energy transition is far more than that. At its core, it is the replacement of one energy order with a new one. In this regard, we are witnessing the construction of a completely new energy order based on a new formulation. Consequently, the reality is that while some new rules and actors are being included in the equation, others are being left out. In short, many aspects related to energy are beginning to change fundamentally. The issues at the heart of energy security are among those that are changing. Accordingly, the primary focus of energy security is shifting toward issues related to renewable energy. In this context, one of the most significant potential threats to energy security in the coming years will be CM, which are the essential components and raw materials of renewable energy systems. Indeed, concerns regarding CM have been frequently raised in recent times. One of the most important indicators of this is that many states have started to incorporate CM into their energy security policies. The effects of this change in energy security policies are gradually becoming apparent. The first of these effects is that CM are increasingly being recognized as a threat to energy security. Another effect is related to the measures being taken to counter this threat. In this regard, some actors are beginning to emerge as key players. In this process, the characteristics of Malaysia are becoming more prominent, and its importance is gradually increasing.

Consequently, the energy revolution leads to a shift in the global energy paradigm. However, these areas of exchange are not limited to them. The primary objective is to thoroughly dismantle the worldwide energy infrastructure. The equation that governs the global energy system is being updated to match the changing conditions of the present era. Emerging players and fundamental concepts, such as energy security problems, can be managed to adjust to the evolving circumstances of the current era. Key minerals pose a major threat to energy security. The transformation of crucial minerals into threats plays a major role in attracting several new actors to the situation. Malaysia's growing global importance and engagement are closely linked to this. These minerals are essential elements that are needed in the production of many high-tech products. Malaysia's capacity to extract and refine REE positions it as a key player in global politics, especially in sectors like electronics, defense, renewable energy, automotive, and magnetic materials.

Research and Publication Ethics Statement

During the writing process of the study titled "New Energy Order and Malaysia's Growing Importance," scientific principles, ethical and citation rules were followed; no falsification was made on the collected data, and this study has not been submitted to any other academic publication platform for evaluation.

Authors' Contribution Rates to the Article

The first author contributed 100% to the study titled "New Energy Order and Malaysia's Growing Importance."

Ethics Committee Approval

This article does not require ethics committee approval. A signed consent form indicating that an ethics committee decision is not needed is included in the article process files on the system.

Conflict of Interest Statement

There is no potential conflict of interest in this study.

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