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TURNING CRISIS INTO OPPORTUNITIES - THE ROMANIAN ENERGY TRANSITION AS A PROCESS

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Abstract: *The research reveals the geopolitics of energy security in Romania, by looking at current efforts in assuring an energy equilibrium in a profoundly transformative moment. The first part looks at the energy transition post 2015 Paris Agreement and the subsequent EU Green Deal and Fit for 55 programs that imposed a mentality shift; the second part investigates Romania's readiness to adopt the energy transition, implement its steps promptly, respond to the market participants, develop and attract sufficient financing mechanisms. These latter discussion points are placed in the context of the COVID-19 post-pandemic and there related to the changes in the landscape brought to the surface by the war of aggression on Ukraine by the Russian Federation.*

Key words: *energy transition, Green Deal, REPowerEU, transformative process, energy security.*

1. SETTING THE CONTEXT

The European Union in general, and Romania in particular, are crossing multiple crises. After a sanitary crisis and the subsequent economic and social crises, an armed conflict is fully underway at the Eastern borders of the EU [1]. Together with the effects of climate change, which bring severe and increasingly extreme weather events, these factors trickle down into serious challenges to the security of supply, to vulnerable customers and economic competitiveness and probably the worst energy crisis since the inception of the EU.

However, it is not only about crises but also about transformative processes that come with them. During the past decade, Romania has been fully aligning with the European energy and climate policies, in terms of policies and adoption of cleaner technology; thus, this article highlights the idea of energy transitioning as a process, in a very complex regional and national environment. The beginning of the decade started with the most severe crisis in modern history, the COVID-19 pandemic, which fully affected all regions of the planet. In turn, this sanitary crisis resulted in a severe economic crisis, with consequences that are still being felt but will likely be heavier than those brought on by the economic crisis of 2007–2008. Furthermore, the energy price issue that has been going on since the beginning of 2022 has had a significant negative influence on the competitiveness and way of life in the EU. Due to the armed confrontation at the EU's Eastern borders, the Union is under pressure to come up with quick, reliable, and long-term solutions for supply security.

In addition, the concept of climate change is no longer just a nice-to-have debate in public discussions; it has gone beyond the realm of academic buzzwords. It unquestionably and permanently affects our humanity. The largest peril to future generations and the biggest task for our generation is climate change. Recent studies estimate a global annual economic output loss of 4% by 2050, or more than 3 trillion dollars a year, or more than 5 times the combined GDP of Denmark and Romania [2].

Moreover, the Russian war of aggression against Ukraine opened a whole plethora of issues related to energy security, from pricing to supply in all areas of the European Union. This overreliance on Russian resources induced a regional vulnerability, and therefore it is time to raise critical questions in this regard.

Putting these outside factors aside, Romania possesses all the necessary characteristics to be the South-Eastern champion on the road to achieving an effective energy transition. With 24% of the energy mix coming from renewable sources, the target should be achieved well before the year 2020, Romania has the highest share of renewables in South-East Europe. More than 40% of the national energy output is produced using renewable sources. Secondly, at 600 MW, Romania possesses the seventh-biggest onshore wind farm in the world and the largest onshore wind farm in the EU. Thirdly, Romania has among the lowest rates of emissions per capita in the EU because of the reduction and relocation of heavy industrial activities developed during communist times. As the Annual European Union greenhouse gas inventory 1990–2021 and inventory report 2023 states, "almost all EU Member States reduced emissions compared to 1990 and thus contributed to the overall positive EU performance. Germany, Romania, Italy and France accounted for two thirds of the total net reduction in EU emissions during the past 31 years" [3]. Furthermore, the cheapest and greenest form of energy is that which is not used, and it is frequently employed in Romania as the main source of energy. Finally, Romania has the greatest installed generation capacity in the region, is the second largest producer of natural gas in the EU and is well situated between the eastern energy corridors and the western markets, which is relevant to the area in terms of energy security and its contribution to stability [4].

Consequently, Romania has all the premises to continue its progress towards a low-carbon energy sector and economy, and to represent a factor of change and stability in the region. However, as opportunities are just the full half of the glass, the rest of the decade may represent the maturity test for Romania, its political determination, technological readiness, social acceptance, and the effective implementation of public-private partnerships, all of which require a mentality shift from the old energy sector to the new "realities" based on clean and efficient generation and consumption of energy.

2. A SHIFT OF MENTALITY

Europe is moving toward carbon neutrality, which will test its political commitment, ability to lead, financial and technical competence, and societal acceptance. The energy transition, particularly the EU Green Deal, and the Fit for 55 programs, have an impact on day-to-day operations and necessitate, among other things, a mentality change.

The Paris Agreement [5] is an international treaty adopted in 2015 by 196 parties to the UNFCCC with the goal of limiting global warming to well below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit it to 1.5 degrees Celsius. It sets its greenhouse gas reduction targets and establishes a framework for financial and technological support to help developing countries reduce their emissions and adapt to the impacts of climate change. It also includes provisions for transparency and accountability, facilitating cooperation and technology transfer, and addressing loss and damage associated with climate change. The Paris Agreement was seen as a significant achievement in the global effort to address climate change.

The European Green Deal [6] is a comprehensive set of policies and initiatives proposed by the European Union (EU) to accelerate the transition towards a low-carbon, sustainable, and circular economy. The main goal is to make the EU climate neutral by 2050, in line with the Paris Agreement's objectives. The policy package includes regulations, directives, financial instruments, and support measures to reduce greenhouse gas emissions, promote energy efficiency, boost renewable energy deployment, protect natural resources, and foster circularity and innovation. The key measures proposed under the Green Deal include the European Climate Law, the renovation wave initiative, the circular economy action plan, the farm-to-fork strategy, and the biodiversity strategy. The Green Deal is expected to drive significant investments and create new opportunities for innovation and green jobs, but it also faces challenges and trade-offs such as ensuring social and economic inclusiveness, addressing competitiveness

issues, and balancing environmental and economic objectives.

The Fit for 55 program [7] is a set of policy proposals developed by the European Commission in July 2021 as part of the EU Green Deal. It includes a package of legislative measures designed to put the EU on track to meet its target of reducing greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. These initiatives are designed to help the EU achieve its ambitious climate goals and to drive the transition to a more sustainable, low-carbon economy. The EU Green Deal and Fit for 55 programs represent a major shift in mentality for the European Union, as they demonstrate a clear commitment to addressing the urgent challenges posed by climate change and environmental degradation. The ambitious targets and policies outlined in these programs aim to transform the way we produce and consume energy, promote sustainable transport, protect biodiversity, and support sustainable agriculture and forestry. By promoting a holistic approach to economic growth and development, these programs offer a path towards a more prosperous, inclusive, and sustainable society for all.

The EU Green Deal and Fit for 55 programs represent a major shift in mentality for the European Union, as they demonstrate a clear commitment to addressing the urgent challenges posed by climate change and environmental degradation. The programs aim to drive a transition towards a more sustainable, low-carbon economy that promotes economic growth, social inclusion, and environmental protection.

This mentality shift can be seen as a break from conventional economic growth strategies that put short-term profitability ahead of long-term sustainability. Instead, the EU is giving priority to a more all-encompassing strategy that aims to strike a balance between environmental, social, and economic goals. This change necessitates a reconsideration of how we produce and use goods and services, as well as a willingness to adopt new technologies and practices that can aid in the mitigation of greenhouse gas emissions and the advancement of sustainable development.

77 nations pledged to achieve a low-carbon transition by 2050 in 2019 at the UN Climate Conference. The United Nations Climate Conference is now a crucial venue for promoting global climate change action. It has been instrumental in fostering international cooperation and solidarity on this pressing issue as well as rallying governmental and private sector support for climate action. During the summit, the United Nations hopes to advance the radical adjustments required to effectively combat climate change and create a sustainable future for all.

The European Commission published the European Climate Law statement in 2020 in conjunction with the European Green Deal to fulfil its pledge to attain climate neutrality by 2050. The European Parliament and the Council of the European Union ratified the law in June 2021 after the European Commission had proposed it in March 2020. According to the European Climate Law, the EU must reduce greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. The law also sets a long-term objective of reaching climate neutrality by 2050, which entails that all remaining emissions will be compensated by extracting an equivalent volume of CO2 from the atmosphere.

The European Climate Law is the EU's commitment to taking urgent and ambitious action to address the global climate crisis. It provides a clear and transparent roadmap for the EU to transition to a low-carbon and climate-resilient economy, while also promoting sustainable growth and creating new opportunities for innovation and investment. It establishes a framework for member states to work together to achieve their emission reduction targets and adapt to climate change impacts.

The Recovery and Resilience Facility (RRF) [8] is a key instrument of the European Union's NextGenerationEU recovery plan, aimed at mitigating the economic and social impact of the COVID-19 pandemic. It has a total budget of €750 billion and is designed to support member states' efforts to reform their economies and societies, making them more sustainable, digital, and resilient. To access funding from the RRF,

each member state is required to prepare and submit a National Plan (NPRR). The NPRR must be consistent with the EU's policy objectives and the RRF's investment priorities, which include Green and digital transitions, economic cohesion, productivity, and competitiveness, social and territorial cohesion, health, and resilience. The European Commission will assess each NPRR to ensure it meets the required criteria and provide feedback and guidance to member states to help them improve their plans. Once the Commission approves a plan, the member state can access the funds allocated to it. The funds can be used to invest in key areas such as renewable energy, digital infrastructure, education and training, as well as to support social welfare programs and public health initiatives.

REPowerEU [9] is an initiative of the European Union aimed at accelerating the deployment of renewable energy across the EU member states. It was launched in July 2021 as part of the European Commission's Fit for 55 packages, which aims to reduce greenhouse gas emissions by at least 55% by 2030. The initiative is based on the principle of renewable energy cooperation among EU member states, to increase the share of renewable energy in the EU's energy mix to at least 40%. It will also provide financial support through a dedicated funding mechanism, known as the Renewable Energy Financing Mechanism (REFM). The REFM will provide grants and loans to support the development of renewable energy projects, with a focus on those that involve cooperation between member states. This initiative has the potential to drive significant progress towards the EU's climate and energy objectives.

Further, strategies and national plans are to be implemented, developments that corroborate the political, technical, financial, and social frameworks. The willingness to change and the ability to implement proved challenging, but the current European single energy market is showing real evidence that the energy transition is well underway. The Electrical Power and Energy System (EPES) is evolving rapidly, increasing its efficiency and business continuity through the growing capability of combining distributed energy resources (DERs). Electrical power and energy systems are the backbone of modern society, providing the energy needed to power homes, businesses, and industries. An electrical power system typically consists of three main components: generation, transmission, and distribution. The Sustainable Development Goals (SDGs) indicators are the Key Performance Indicators (KPIs) for the ambitions set for 2030. This requires moving from a 'best effort' approach to one in which environmental and economic sustainability is the major requirement, putting pressure on operational efficiency and optimization.

Energy systems involve the integration of various components, such as power generation and distribution, energy storage, and demand response technologies. Advanced technologies such as smart grids, renewable energy systems, and energy storage systems are essential to improve the efficiency, reliability, and sustainability of electrical power and energy systems. With the increasing demand for electricity and the urgent need to reduce greenhouse gas emissions and combat climate change, these systems play a critical role in the transition to a more sustainable future.

Digital services are a key enabler of this capability, building on increased collaboration among all stakeholders connected to the power supply chain that relies on near real-time availability and the exchange of data and knowledge. Dedicated hardware solutions have changed to software and hardware solutions that make protecting the systems more sophisticated.

The duties and responsibilities of the regulated parties in charge of the transmission and distribution of energy have been completely redesigned because of this. The ability for consumers to participate actively in the production, storage, and consumption of energy has also been made possible by the concomitant decline in the cost of energy storage. Individual or community-based energy consumers are positioned as active participants in the energy sector by RES (Renewable Energy Systems) grid-connected storage and flexible loads, which optimize local generation to maximize electricity self-consumption while offering services to the grid operators (such as peak shaving).

In the context of the European Green Deal, such an evolution constitutes an economic,

organizational, and societal foundation for the 2030 and 2050 targets. This overall evolution is a significant driver to lower the carbon footprint of energy distribution. This influences the way that electricity grids are changing from a centralized mono-directional architecture to a decentralized multi-directional paradigm, a change made possible by the development and upscaling of game-changing ICT technologies like distributed cloud-edge computing, the Internet of Things, blockchain, federated and distributed learning, and predictive analytics. The improved electrical grid that results from this process can be seen as a well-coordinated ensemble of the market, operational, and consumer contexts.

Stakeholders in the energy systems have shifting perspectives. Current solutions are unable to meet societal demands for a low-carbon future and citizen expectations for keeping their existing degree of energy freedom. Energy and ICT sectors are prepared to enable this paradigm shift, not the least thanks to Mission Innovation, a public-private cooperation spurred by business titans like Bill Gates. The issues faced by system operators to maintain grid stability and the safe and reliable functioning of an increasingly complex and unpredictable electricity generation park, however, grow together with the proportion of renewable energy generation resources that are connected to the power grid.

The relevance of storage has increased since, as part of the European Union's efforts to reduce greenhouse gas emissions, electrification is crucial. In particular, the heating and cooling of buildings as well as the transportation sector need to be electrified immediately. Sector coupling, primarily the use of Power2Heat and electric vehicle batteries, is expected to rise in this environment. Algorithms and systems that can exploit their inherent flexibility could be a very cost-effective approach to electrifying heating and transportation.

Consequently, this section attempted to provide the necessary evidence that the energy transition is not only politically assumed but also technically viable and economically feasible. However, despite current achievements in developing an energy system based on cleaner eneration sources, much is still to be done to mitigate the effects of climate change.

3. DECONSTRUCTING ROMANIA'S ENERGY TRANSITION

This section attempts to highlight Romania's readiness for an energy transition. What is the probable impact of the energy transition on Romania's economy? Is Romania ready for such a transition? How has it been implemented to date? The energy transition, which involves a shift towards cleaner and more sustainable forms of energy, is expected to have a significant impact on Romania's economy, both in the short term and the long term. Some potential impacts include:

- Changes in the energy mix: As part of the EU's efforts to reduce greenhouse gas emissions, there will be a gradual shift away from fossil fuels towards renewable energy sources such as solar, wind, and hydro. This could impact Romania's energy sector, which is currently heavily dependent on coal and other fossil fuels. The transition to cleaner energy sources could lead to job losses in the coal sector but also create new jobs in the renewable energy sector.
- Investment opportunities: The energy transition is expected to create new investment opportunities in clean energy infrastructure, such as wind and solar farms, energy storage facilities, and smart grid technologies. This could attract new investment to Romania and create new jobs in the energy sector.
- Increased energy efficiency: The energy transition will also involve a greater focus on energy efficiency, which could lead to cost savings for consumers and businesses. This could stimulate economic growth by freeing up resources that can be invested in other areas.
- EU funding: Romania could benefit from EU funding for projects related to the energy transition, such as the development of renewable energy infrastructure and energy

- efficiency measures. This could provide a significant boost to the country's economy.
- Regulatory changes: The energy transition will require changes to regulations and policies related to the energy sector. This could create uncertainty for businesses and investors in the short term, but it could also lead to a more stable and predictable regulatory environment in the long term.

Overall, the energy transition is expected to have both positive and negative impacts on Romania's economy. While there may be some short-term challenges, such as job losses in the coal sector, the transition could also create new investment opportunities and stimulate economic growth in the long term. Additionally, the transition is necessary to reduce greenhouse gas emissions and mitigate the impact of climate change, which is a global priority.

Like many other nations, Romania was not entirely ready for the energy transition when it started. Because of the nation's long-standing reliance on coal and other fossil fuels, the transition to cleaner and more sustainable energy sources has necessitated considerable adjustments to policy, regulations, and infrastructure.

Romania has, however, acted recently to quicken the shift to a more sustainable energy system. For instance, the nation has established a goal of generating 30% of its electricity from renewable sources by 2030 and has implemented several regulations and incentives to promote investment in renewable energy infrastructure. The government has also taken steps to increase energy efficiency and lower greenhouse gas emissions in the transportation industry.

Romania still has a long way to go before accomplishing a quick and seamless energy transition, despite these efforts. The nation's energy infrastructure must be updated, and there are still considerable institutional and regulatory hurdles standing in the way of the growth of renewable energy projects. Furthermore, state-owned firms continue to dominate Romania's energy market, making it challenging for new businesses to enter the space.

Overall, Romania is taking action to catch up and is moving towards a more sustainable and low-carbon energy system, even though the nation may not have been entirely ready for the energy transition when it started. However, further investment and policy support will be required to speed up the change and guarantee a seamless and just transition for all stakeholders.

Figure 1 emphasizes Romanian energy consumption by source compared to the EU27 profile.

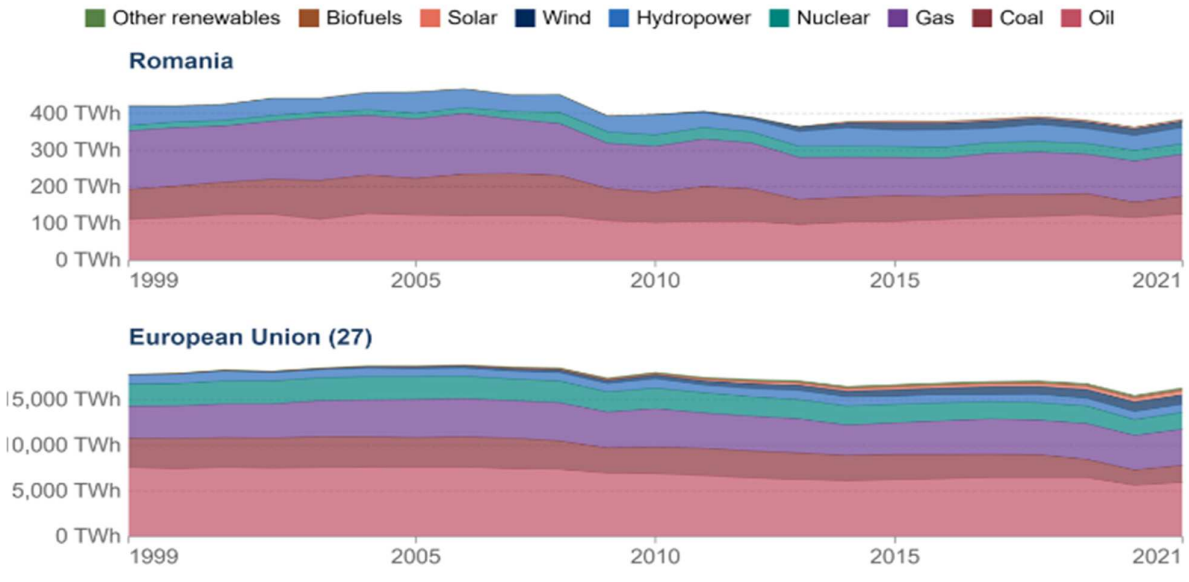

Fig. 1. Romania vs EU27 energy consumption by source [source: OurWorldinData.org/energy]

4. THE IMPACT ON THE ENERGY OF COVID-19 AND THE SUBSEQUENT QUICK RECOVERY

Globally, the COVID-19 epidemic had a major effect on the energy industry, and Romania was no exception. As a result of individuals staying at home and factories closing due to the epidemic, there was a large decrease in energy demand across a wide range of industries.

In the instance of Romania, the pandemic caused a decrease in the country's consumption of electricity and natural gas in 2020, with decreases of 4.4% and 4.7%, respectively, from the prior year. This was mostly caused by a decline in industrial activity and energy use in commercial buildings.

The epidemic had a major effect on the energy markets as well; as demand fell precipitously, oil and gas prices fell substantially. This influenced Romania because the nation imports a lot of oil and gas to cover its energy demands. Romania is a net importer of energy. Nonetheless, the price drops also resulted in lower consumer energy expenses, which offered some comfort during the recession.

The energy sector was initially affected by the pandemic, but since the economy started to recover and activity picked back up in the middle of 2020, Romania has quickly recovered in terms of energy demand and consumption. Government stimulus programs and investments in infrastructure, notably energy infrastructure, have aided in the recovery.

Nonetheless, Romania has demonstrated resilience and has been able to recover quite rapidly despite the pandemic having a huge negative impact on the energy sector there and around the world. The pandemic has also brought attention to the need to diversify the energy mix and promote investment in renewable energy sources, which can help the nation become less dependent on fossil fuels and enhance long-term energy security.

5. THE LANDSCAPE CHANGE SINCE THE ARMED CONFLICT IN UKRAINE

Romania's energy prices, suppliers, and transportation routes have all been significantly impacted by the ongoing conflict in Ukraine. Russia, a significant natural gas exporter to Europe, particularly Romania, has seen its natural gas supply affected by the conflict.

The situation in Ukraine has had the consequence of making Romanians more concerned about their energy security. The nation has made investments in local gas production and renewable energy sources like wind and solar power to lessen its reliance on imported natural gas. The country's energy mix has become more diverse as a result, and its susceptibility to supply disruptions has decreased.

Changes in natural gas transportation lines have also been brought on by the conflict. Together with other nations in the region, Romania has been looking at alternate gas transit routes to avoid Ukraine. This involves building new pipelines like the BRUA (Bulgaria-Romania-Hungary-Austria) pipeline, which will enable Romania to import natural gas from the Caspian region and lessen its dependence on Russian gas.

Romanian energy prices have also been impacted by the conflict. Gas prices in Romania were once correlated with those in Russia, but this correlation has lessened as the nation has diversified its gas supply. Yet, changes in the global gas market, which can be impacted by geopolitical events like the situation in Ukraine, continue to have an impact on Romania's gas pricing.

Overall, the situation in Ukraine has had a big influence on Romania's energy industry, especially in terms of gas supply and transit routes. The nation has been making efforts to lessen its reliance on imported gas and diversify its energy sources, which has served to lessen the conflict's impact on the nation's energy security.

6. ROMANIAN ENERGY TRANSITION AS A PROCESS

The move to a more sustainable and low-carbon energy system is a key component of the complicated and ongoing Romanian energy transformation. The process includes a variety of diverse elements, such as adjustments to policies and regulations, the creation of infrastructure, financial investments in new technology, and modifications to consumer behavior. Figure 2 shows the snapshot situation of energy mix in 2021, as stated by Eurostat database.

The promotion of renewable energy sources, including wind, solar, and hydropower, is one of the major tenets of Romania's energy revolution. By 2030, the nation wants to generate 30% of its electricity from renewable sources, so it has put in place a variety of laws and incentives to promote the development of the necessary infrastructure. This covers tax breaks and feed-in tariffs for renewable energy projects.

The improvement of energy efficiency, which entails lowering energy consumption while maintaining or raising output, is another crucial component of the energy transition. This can be accomplished by taking several steps, like enhancing industrial operations, supporting more efficient transportation options, and improving building insulation.

To facilitate the integration of renewable energy sources, the transition process also entails the modernization of the energy infrastructure, including the creation of new transmission and distribution systems. Increasing dependability and efficiency may also entail improving the current infrastructure.

Moreover, the energy transition necessitates modifications in consumer behavior, such as the adoption of more environmentally friendly and energy-saving techniques in offices and homes.

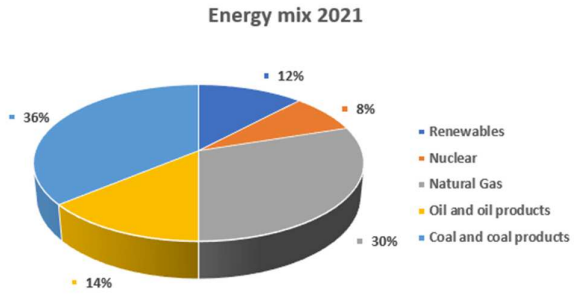

Fig. 2. Romania's energy mix in 2021 [source: Eurostat]

This can entail adjustments like switching to more energy-efficient equipment, buying electric cars, and putting energy-saving measures in place in buildings.

Overall, the energy transition in Romania is a complicated and diverse process that necessitates the cooperation of numerous stakeholders, including government organizations, energy providers, financiers, and customers.

Currently, Romania is working to transform its energy infrastructure to move toward a low-carbon, sustainable future. The following essential steps are part of Romania's energy transition process:

- Raising the production of renewable energy: By 2030, Romania aims to generate 30.7% of its electricity from renewable sources. The government has put in place laws and incentives to promote the growth of renewable energy projects, primarily wind and solar, to achieve this.
- Reducing the production of coal-fired electricity: Romania relies heavily on coal to generate electricity, but the government has committed to phase out coal-fired power facilities by 2030. The government is working to switch to natural gas and renewable energy sources to accomplish this.
- Increasing energy efficiency: Romania is also taking action to do this, especially in the construction and industrial sectors. By 2030, the government wants to cut back on energy use by 50% from where it was in 2005.
- Integration with the European Energy Market: Romania is attempting to integrate its energy system with the larger European Energy Market through initiatives like enhancing connections with nearby nations and boosting cross-border trade.

Overall, Romania is undergoing an energy transition that encompasses a variety of actions to boost the country's potential for renewable energy, lessen its reliance on coal, raise energy efficiency, and integrate it into the larger European energy market. To advance the transition to a more resilient, low-carbon energy system, the government has established ambitious goals and is putting policies and incentives in place.

7. RESEARCH LIMITATIONS AND FURTHER DEVELOPMENT

While this study has provided valuable insights into Romania's energy transition process, it is essential to acknowledge certain limitations that may have influenced the research process and findings. These limitations are as follows:

- Data Limitations: The analysis in this paper heavily relies on available data sources, and, like any research, it is subject to the quality and completeness of the data. While efforts were made to access comprehensive and accurate data, the energy sector's complex nature may result in data gaps or inconsistencies. Additionally, the data used might be limited to specific time periods or might not fully capture recent developments in the energy transition.
- Time Constraints: The study's timeframe and scope may have been influenced by time constraints. As the energy transition is a dynamic and evolving process, some aspects might not have been explored in-depth due to limitations in the available research period.
- Resource Limitations: Resource constraints, such as limited funding, access to specialized equipment, or expertise, may have impacted the depth and breadth of the research. These constraints could have influenced the selection of research methods and data collection.
- External Factors: The research may have been affected by external factors beyond our control, such as changes in government policies, economic conditions, or unforeseen events like the COVID-19 pandemic. These external dynamics can introduce variability and affect the interpretation of findings.

Looking ahead, there are several promising avenues for further research and development in the context of Romania's energy transition. Firstly, researchers can consider expanding their investigations by conducting more extensive surveys, collecting additional data, or delving into specific aspects not covered comprehensively in the present study. This approach would provide a more nuanced understanding of the intricacies involved in Romania's energy transition process. Secondly, methodological improvements present a significant opportunity. Researchers can explore advanced statistical techniques, incorporate cutting-edge technologies, and adopt interdisciplinary research methods. These enhancements could lead to more robust and precise findings, allowing for a deeper understanding of the energy transition's dynamics and impacts. In conclusion, future research can focus on these opportunities, aiming to refine methodologies, delve into specific aspects, and engage with interdisciplinary approaches.

While this study has shed light on critical aspects of Romania's energy transition, it is vital to recognize its limitations and look forward to future research opportunities. By addressing these limitations and exploring new avenues, we can contribute to a more sustainable, resilient, and low-carbon energy future for Romania.

8. CONCLUSIONS

This article has emphasized Romania’s efforts at energy transitioning as a process in a very complex regional and national environment. The effects of the COVID-19 pandemic, as well as the recent war of aggression at the borders of Romania, have slowed down the speed of transformation in the energy sector.

Romania is in the process of transitioning its energy system towards a more sustainable, low-carbon future. The government has set ambitious targets and is implementing policies and incentives to encourage the renewable energy project development, and reduce coal-fired power generation. Additionally, Romania is working to integrate its energy system with the European energy market, through measures such as improving interconnections with neighboring countries and increasing the use of cross-border trading. Overall, the process of energy transitioning in Romania involves a range of measures to increase renewable energy capacity, reduce dependence on coal, improve energy efficiency, and integrate with the wider European energy market.

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Transformarea crizelor în oportunități - tranziția energetică a României ca proces

Cercetarea dezvăluie geopolitica securității energetice în România, analizând eforturile actuale de asigurare a unui echilibru energetic într-un moment profund transformator. Prima parte analizează tranziția energetică după Acordul de la Paris din 2015 și programele ulterioare ale Uniunii Europene: Green Deal și Fit for 55 care au impus o schimbare de mentalitate; a doua parte investighează disponibilitatea României de a adopta tranziția energetică, de a-i implementa pașii cu promptitudine, de a răspunde participanților de pe piață, de a dezvolta și de a atrage suficiente mecanisme de finanțare. Aceste din urmă puncte de discuție sunt plasate în contextul post-pandemic COVID-19 și cel legat de schimbările de peisaj aduse la suprafață de războiul de agresiune asupra Ucrainei de către Federația Rusă.

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