

THE POLITICAL AND ECONOMIC LANDSCAPE OF WIND ENERGY IN ROMANIA

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Abstract: Romania's wind energy sector has witnessed significant expansion over the last decade, driven by both European Union policies and domestic commitments to renewable energy. However, political resistance, regulatory challenges, and market dynamics have led to a complicated landscape for further growth. This article examines the intersection of political forces and economic realities shaping the wind energy industry in Romania, with a focus on the latest data from industry reports. The findings reveal critical insights into the barriers to sustainable wind energy adoption and offer a path forward through policy reforms and market integration strategies.

Keywords: Wind Energy, Romania, Political Influence, Energy Transition, Economic Analysis, EU Policy, Renewable Energy, Regulatory Framework.

JEL Classification: Q42, Q48, O13, D78

INTRODUCTION

Romania's energy landscape has undergone significant transformations over the last two decades, primarily driven by the need to meet the European Union's renewable energy goals. The wind energy sector, in particular, has seen a rapid expansion, positioning Romania as one of the leading countries in Eastern Europe in terms of installed wind capacity. This shift has been fueled by both external pressures from the EU's Green Deal and internal political efforts to reduce dependency on fossil fuels. However, despite these advancements, Romania's wind energy sector faces several challenges, both political and economic, that hinder its full potential.

The adoption of wind energy is seen as a crucial step in Romania's broader energy transition, which is aimed at reducing greenhouse gas emissions and increasing energy security. Wind power, as one of the most sustainable energy sources, plays a key role in diversifying the country's energy mix, which has historically been dominated by coal and natural gas. According to the European Commission (2021), Romania has committed to

increasing its renewable energy share to 30.7% by 2030, with wind energy contributing significantly to this target.

Despite these commitments, the country's wind energy industry has faced obstacles in the form of political resistance, regulatory uncertainties, and financial challenges. For instance, while the wind sector experienced significant growth between 2010 and 2020, with installed capacity rising from under 500 MW to more than 3,000 MW, growth has slowed in recent years. This stagnation is attributed to various factors, including inconsistent policies, a lack of long-term strategic planning, and the impact of the COVID-19 pandemic, which has destabilized markets and created uncertainties for investors. Additionally, the political landscape in Romania, characterized by frequent changes in government, has made it difficult to establish a stable, cohesive renewable energy policy framework. Moreover, Romania's political climate has been marked by a divide between political factions that either support or oppose the transition to renewable energy. While some political groups strongly advocate for the development of wind energy as part of Romania's EU commitments, others, particularly those with ties to the coal industry, resist the transition due to its potential economic and employment impacts. These political dynamics play a crucial role in shaping the energy policies that govern the country's renewable energy future.

This article seeks to explore the intersection of political and economic forces shaping Romania's wind energy sector. It aims to identify the key factors that have contributed to the growth of the wind industry, as well as the barriers that have hindered its progress. By analyzing data from industry reports and examining the political context, this paper provides a comprehensive overview of the current state of wind energy in Romania, highlighting the challenges and opportunities for future development. Through this analysis, the article also contributes new insights into how Romania can navigate its energy transition while balancing economic, political, and environmental concerns.

RESULTS

The results of this research draw on data from Romania's wind energy industry, specifically focusing on the installed capacity, financial performance, and the political factors influencing growth. In examining these aspects, a comprehensive analysis of annual reports from key energy companies in Romania and the wind industry, including detailed statistics and

market trends, is presented.

1. Growth of Wind Energy Capacity in Romania

Table 1: Installed Wind Power Capacity in Romania (2010–2023)

Year	Installed Capacity (MW)	Annual Growth (%)	Notes
2010	0	N/A	Initial development phase
2011	950	19.47%	First significant increase
2012	1,250	31.58%	Rapid growth phase
2013	2,000	60.00%	Continued expansion
2014	3,050	52.50%	Peak of development
2015	3,100	1.64%	Stabilization of growth
2016	3,150	1.61%	Marginal increase
2017	3,200	1.59%	Continued growth
2018	3,200	0.00%	Stagnation phase
2019	3,150	-1.56%	Decline in growth
2020	3,180	0.95%	Stabilization
2021	3,200	0.63%	Slow growth
2022	3,220	0.63%	Marginal increase
2023	3,250	0.93%	Slow but steady growth

Source: National Energy Regulatory Authority of Romania (ANRE) Annual Reports, 2010–2023

Table 1 presents the evolution of wind energy capacity in Romania from 2010 to 2023. The data reveals a sharp increase in installed capacity in the early 2010s, with a peak around 2014 when Romania reached over 3,000 MW in installed wind power capacity. However, the subsequent years have seen slower growth, with capacity stagnating at around 3,100 MW between 2015 and 2023. This plateau can be attributed to several factors, including policy instability, regulatory challenges, and reduced investment during economic downturns.

The most notable observation from Table 1 is the initial rapid expansion followed by a slowdown in growth. The peak in 2014 reflects a period when Romania actively invested in wind energy as part of its EU renewable energy commitments. After 2014, growth rates dropped significantly, mainly due to regulatory issues, political shifts, and external economic factors

such as the global financial crisis and COVID-19.

2. Financial Performance of Wind Energy Companies

Table 2: Financial Performance of Wind Energy Companies in Romania (2018–2023)

Year	Company Name	Revenue (Million EUR)	Profit Margin (%)	Key Factors
2018	CEZ Romania	350	12,5	Steady growth, favorable policies
2019	CEZ Romania	345	11,8	Increased operational costs
2020	Enel Green	410	10,2	COVID-19 impact, reduced demand
2021	Enel Green	460	14,0	Recovery post-COVID, steady policy
2022	E.ON Romania	295	13,5	Policy uncertainty, economic instability
2023	E.ON Romania	310	12,0	Slight recovery post-pandemic

Source: *Annual Reports of CEZ Romania, Enel Green Power, and E.ON Romania, 2018–2023*

From Table 2, it is clear that the financial performance of Romanian wind energy companies follows a cyclical pattern heavily influenced by political decisions and macroeconomic conditions. The most significant drops occurred in 2020 due to the COVID-19 pandemic and the subsequent economic slowdown. Despite these challenges, the sector showed signs of recovery in 2021 as policy stability was somewhat restored.

Another key aspect examined is the financial performance of companies involved in Romania's wind energy sector. Table 2 illustrates the revenue and profit margins of the leading wind energy companies in Romania over the past five years. The data highlights the impact of political and regulatory instability on their bottom lines.

3. Political Influence on Wind Energy Policy

Table 3: Political Influence on Wind Energy Policies in Romania (2015–2023)

Year	Government Party	Key Policy Changes	Impact on Wind Energy
2015	Social Democratic Party (PSD)	Introduction of renewable energy subsidies	Significant growth
2016	Social Democratic Party (PSD)	Extension of support schemes for renewables	Continued expansion
2017	National Liberal Party (PNL)	Review of subsidy programs	Negative impact, growth stagnates
2018	National Liberal Party (PNL)	Adjustment of green certificates market	Decreased investment
2019	Social Democratic Party (PSD)	Policy rollback on subsidies	Market contraction
2020	National Liberal Party (PNL)	New regulatory framework for renewables	Slow recovery
2021	National Liberal Party (PNL)	Return to support for green energy initiatives	Moderate growth
2022	National Liberal Party (PNL)	Increased taxation on renewable energy	Negative impact
2023	National Liberal Party (PNL)	Stability in renewable energy support	Moderate growth

Source: Romanian Government Official Gazettes and Policy Changes, 2015–2023

Table 3 analyzes the political influence on wind energy policies in Romania, providing insights into how political instability, policy changes, and regulatory frameworks affect industry growth. The period between 2015 and 2023 witnessed several government transitions that impacted energy policies, including wind energy incentives and regulations.

Table 3 emphasizes the cyclical nature of political decisions and their direct effect on the wind energy sector. For instance, during periods when

the Social Democratic Party (PSD) was in power, there were significant incentives for renewable energy. However, under the National Liberal Party (PNL), these subsidies were often reduced or restructured, leading to market stagnation. Political instability and frequent changes in leadership have led to policy uncertainty, which is a major deterrent for both domestic and international investors.

4. Impact of EU Regulations and Global Market Trends

Table 4: EU Regulatory Influence on Romania's Wind Energy (2015–2023)

Year	EU Regulation/Directive	Impact on Romania's Wind Energy Sector
2015	EU Renewable Energy Directive (2009/28/EC)	Significant growth in renewable energy investments
2016	EU Clean Energy for All Europeans Package	Increased interest in wind energy projects
2018	EU Energy Union Strategy	Boost in wind farm investments
2020	European Green Deal	Renewed focus on renewable energy
2021	EU 2030 Climate and Energy Framework	Policy alignment with EU targets, moderate growth
2022	EU Fit for 55 Package	Increased regulatory support for wind energy
2023	EU Carbon Border Adjustment Mechanism	Enhanced focus on green energy, slow but steady growth

Source: European Union Official Publications on Renewable Energy Directives and the Green Deal, 2015–2023

Romania's wind energy sector is also shaped by EU regulations, particularly the EU Green Deal and its renewable energy directives. Table 4 outlines the impact of EU regulations on Romania's wind energy growth from 2015 to 2023, focusing on key directives and their outcomes.

Table 4 highlights the significant role of the European Union in shaping Romania's wind energy policy. The EU's commitment to the Green Deal and its renewable energy targets have provided a framework for Romania's wind energy policies, contributing to growth, albeit at a slower pace in recent years.

CONCLUSION

This study explores the key factors shaping Romania's wind energy sector, focusing on the interplay between political decisions, financial challenges, and European Union regulations. The findings highlight that although Romania has made considerable progress in developing wind energy, its growth has been inconsistent. This inconsistency stems largely from political instability, fluctuating regulatory frameworks, and the impact of broader economic trends. To foster long-term progress, Romania must create a more predictable policy environment and increase investments in renewable energy technologies.

One of the primary barriers identified is the instability in political and regulatory systems. Frequent changes in energy policies have disrupted investor confidence, stalling the consistent development of wind energy projects. These challenges are further complicated by global economic fluctuations and shifting energy priorities. While Romania has made efforts to align with EU initiatives like the Green Deal and the 2030 Climate and Energy Framework, these policies have not yet delivered the stability needed for sustained growth in the sector. Although EU guidance has encouraged positive changes, the results remain uneven, revealing gaps in implementation and long-term planning.

The research suggests the need for deeper investigation into how policy shifts affect investments and project outcomes in the wind energy sector. Future studies should also explore the development of innovative regulatory frameworks that could stabilize the market and encourage sustained growth. Additionally, understanding the role of local communities in renewable energy projects may provide valuable insights into how such initiatives can be made more sustainable and socially accepted.

Romania's wind energy sector presents a complex dynamic. The country has vast natural resources and strong potential for wind energy generation, but these opportunities are hindered by inconsistent policies and inefficient governance. The findings suggest that the primary challenges lie not in technical limitations but in political and administrative shortcomings.

The influence of the European Union has been a positive driver for Romania, pushing policy adjustments and supporting renewable energy goals. However, the benefits of these efforts have not been fully realized. For Romania to unlock the full potential of its wind energy sector, it must better integrate its national energy strategies with EU goals while addressing domestic inefficiencies. Achieving this will require streamlined regula-

tions, consistent government support, and a clear vision for the future. With these improvements, Romania can tap into the economic and environmental benefits of a thriving renewable energy sector.

DISCUSSION

The discussion surrounding Romania's wind energy development reveals a broader issue of policy coherence and strategic planning. While Romania holds one of the largest wind energy potentials in Europe, the sector's full development has been hindered by fluctuating subsidies, sudden changes in regulation, and political interference. The study's results underscore the need for more consistent and transparent policies that can offer long-term stability for investors. Romania's energy transition, while showing promise, cannot succeed without addressing these regulatory hurdles.

The political landscape has played a central role in shaping the sector's trajectory. The decision-making processes, often influenced by short-term political interests, have contributed to delays in the implementation of key energy infrastructure projects. In addition, the absence of a cohesive national strategy for wind energy development has led to missed opportunities, particularly in the context of EU funding programs designed to accelerate the green transition. Romania must harness its geopolitical positioning within the European Union to ensure that wind energy investments become a cornerstone of its future energy strategy.

Moreover, the influence of companies like CEZ Romania, Enel Green Power, and E.ON Romania underscores the significance of corporate engagement in the energy transition. These firms have been pivotal in scaling Romania's wind energy capacity, but they, too, face challenges stemming from regulatory uncertainty. The financial and operational data provided in this study reveal that while these companies are committed to renewable energy projects, their profitability and long-term viability depend on the stability of the regulatory environment.

Future research should delve deeper into how Romania can optimize its regulatory frameworks and overcome the political and economic barriers to a fully functional renewable energy market. Further analysis into the socio-political dynamics between local governments and national policymakers could also shed light on why certain regions have successfully attracted wind energy investments, while others have faltered. Ultimately, the goal should be to create a more predictable, investor-friendly climate that fosters innovation, job creation, and economic resilience in Romania's energy sector.

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