

**REPowerEU: An Imperfect Yet Effective
Response to Energy Security Issues
Arising from the Russia-Ukraine War**

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Abstract

This essay evaluates the effectiveness of the EU's REPowerEU Plan, launched in 2022 to reduce dependence on Russian energy and enhance energy security following the invasion of Ukraine. Analyzing three years of implementation data, the study finds the policy largely successful in its core short-term objectives. Key achievements include exceeding the gas demand reduction target (17%), drastically reducing Russian fossil fuel imports (e.g., gas down to 19% from 45%), and accelerating renewable energy deployment, surpassing targets. Diversification mechanisms like the EU Energy Platform facilitated significant new supply contracts. However, the analysis identifies significant long-term challenges, particularly divergent interests among member states regarding the energy transition phase (e.g., coal dependency in Eastern Europe, nuclear debates) and unresolved concerns about distributional equity within the Plan's framework. While effectively bolstering immediate energy security, the essay concludes that REPowerEU requires more flexible, country-specific implementation strategies to address internal disparities for sustained success.

1 Introduction

The Russia-Ukraine War (RUW) began in February 2022 and continues to this day. In response to Russia's aggression against Ukraine, the European Union implemented a total of nine rounds of sanctions in 2022, including financial sanctions, energy sanctions, and others. Russia, however, is a significant supplier of oil and natural gas to the EU. The above sanctions have greatly impacted the stability of the EU energy market, leading to annual energy inflation surged by 38.3%, with natural gas prices skyrocketing by 52.2% (Sokhanvar Lee, 2023). To reduce reliance on Russian energy and ensure the energy security of the EU, the EU has launched the REPowerEU Plan. The plan initiative has now been in effect for three years, yet a comprehensive analysis of its efficacy remains absent. This essay, therefore, undertakes an evaluation of the policy's effectiveness and argues that while the policy demonstrates significant efficacy, it is not perfect.

This essay will first outline the policy core measures and objectives, analyze its achievements based on data, and subsequently identify the challenges and controversies it faces.

2 Core Measures and Objectives of REPowerEU

The REPowerEU initiative outlines measures in three key areas to achieve the core objectives of reducing dependence on Russian energy and ensuring energy security: energy conservation and efficiency improvement, diversification of energy supply, and accelerated deployment of renewable energy sources(European Commission, 2022). Regarding the definition of energy security, there is currently no unified consensus. Diverse definitions primarily emphasize Energy availability, infrastructure, energy prices, societal effects, environment, governance, and energy efficiency(Ang et al., 2015). This essay adopts the definition provided by the IEA: "Reliable, affordable access to all fuels and energy sources."(IEA, 2025)

REPowerEU aims to achieve its objectives through a combination of increasing supply, reducing demand, and facilitating transformation. To enhance supply, it promotes diversification of energy sources, with specific measures including the establishment of the "EU Energy Platform" and the "AggregateEU" mechanism, which have successfully matched nearly 100 billion cubic meters of natural gas supply and demand, accounting for 30% of the EU's total needs. Additionally, it pushes for an increase in liquefied natural gas (LNG) import capacity, aiming for an import capability of 50 billion cubic meters by 2024, projected to rise to 70 billion cubic meters by the end of that year(European Commission, 2022). With regard to demand reduction, the EU has established a voluntary target of cutting gas consumption by 15% compared to the 2017-2021 average through the "Regulation on Reducing Gas Demand." It has also revised the "Energy Efficiency Directive," mandating a 11.7% reduction in final energy consumption by 2030 compared to the 2020 reference scenario, with a focus on promoting building renovation (accounting for 52% of EU gas consumption) and industrial electrification (European Commission, 2022). To achieve transition goals, the EU has mandated the installation of rooftop photovoltaic systems in new public buildings starting from 2025 and in residential buildings from 2029. Additionally, the EU plans to

produce and import 10 million tons of green hydrogen each by 2030, while establishing three major import corridors(European Commission, 2022).

3 Conclusion

Facing the energy crisis precipitated by the Russia-Ukraine war, the European Union swiftly formulated the REPowerEU initiative to address the situation. This plan aims to wean the EU off its reliance on Russian energy and accelerate the energy transition to ensure long-term energy security. Over the three years of its implementation, the initiative has significantly reduced energy imports from Russia and either met or exceeded the targets for energy transition. Consequently, it has successfully achieved its initial objectives: decoupling from Russian energy dependence and safeguarding EU energy security. In other words, the EU has, up to this point, achieved the short-term objectives set out in the REPowerEU Plan, but there are still issues regarding the long-term goals associated with the energy transition. Such as the disparate interests among EU member states during the energy transition, leading to notable variations in the progress of energy transformation. Therefore, this essay contends that while the plan effectively ensures EU energy security, it is not without flaws.

Based on the aforementioned analysis, this essay posits that the EU should establish more precise objectives and conditions for each REPowerEU measure, allowing individual countries to implement the plan flexibly based on their specific circumstances. (1488 Words)

4 Test

4.1 Test for references

This is the first reference(Andrikogiannopoulou & Papakonstantinou, 2019). This reference is intended to test the simultaneous reference of two articles(Barras et al., n.d.; Lee & Ren, 2024).

Wang et al. (2024) deliver a robust theory.

4.2 Test for image and table

This is the first table

Table 1: An Example of a Well-Formed Table

Item	Quantity	Price
Apple	10	\$1.25
Banana	5	\$0.75
Orange	8	\$1.50

This is the second table

Table 2: a more complex specification table

Category	Item	Description
Fruit	Apple	A common temperate fruit, rich in vitamins and fiber.
	Orange	A citrus fruit known for its high vitamin C content.
Total	Two types of fruit	



Figure 1: Stranger Things

4.3 Test for formula

This is an inline formula: $E = mc^2$.

$$e_i^{\text{agg}^*} = \frac{1}{n_i} \sum_{k=1}^{n_i} \binom{n_i}{k}^{-1} \sum_{\mathcal{S}_{ki} \in \mathcal{B}_{ki}} \pi^k A_{i, \mathcal{S}_{ki}} \quad (1)$$

References

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