



Reforming the EU Energy Market to Increase Competitiveness and Resilience

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Intensifying tensions in global trade and China's growing competitive advantage mean that the European Union faces an urgent need to provide more decisive support for the development of its own economy. The implementation of the electricity market reform (EMD), approved in May 2024, is of particular importance. It was initiated in response to the need to reduce energy prices, which directly impact, among other things, the investment attractiveness of the EU and its competitiveness. Maintaining energy market stability and subsidy guarantees may, however, make it difficult to achieve the EU's ambitious climate goals, which the European Commission is even tightening.

The EU's currently implemented EMD reform aims to reduce dependence on fossil fuels while simultaneously increasing the resilience of the energy market to potential energy crises in the EU. To counteract market manipulation, mainly perpetrated by external actors, and to increase the stability and predictability of energy prices, the European Commission (EC) is promoting long-term contracts, which are also intended to strengthen the competitiveness of the industry. A key element of the new regulations is the dynamic development of renewable energy sources (RES) and facilitating their integration into the energy system. A decisive role will be played by efficiently increasing the system's ability to adapt to sudden changes in energy generation from various sources (mainly resulting from dynamic weather conditions affecting RES production), as well as the ability to maintain smooth transmission (flexibility). As demonstrated by large blackouts (power system failures) in the past year, including those in Spain and the Czechia, in addition to striving to increase their own energy production capacity, Member States must ensure system stability.

Implementing the Reform. Effective implementation of the EMD reform requires both modernisation and expansion, as well as deeper integration of the energy system. This includes changes to grid and capacity-market regulations (maintaining production from conventional sources on

standby) and providing a framework for formal and financial support guarantees for non-emission and low-emission sources. The goal of these measures is to secure stable energy supplies and promote renewable energy sources, which is also essential for reducing CO₂ emissions. However, effective transformation requires rapid grid development, especially since over 40% of the existing infrastructure is more than 40 years old.

In response to these challenges, in early June of this year, the EC published a guiding document on what are called "pre-emptive investments" (for the long term and beyond today's demand) in energy networks, which are unsuited to the growing demand for renewable energy and the need for rapid decarbonisation of the economy. At the current stage, the implementation of the reform is therefore focused on streamlining the connection of new capacity to the grid, including the development of energy infrastructure supporting RES. At the same time, the ongoing energy transition in the Member States requires appropriate system balancing—maintaining inputs at adequate levels guaranteeing stable supplies, often, in practice, from mainly fossil sources. This is also facilitated by a well-functioning capacity market, which has been incorporated into the revised EU market architecture.

(Non)single Energy Market. One of the key challenges for the EU remains the strong diversification of the energy

market in the Member States, resulting from, among other things, their different energy mixes. Although 46.9% of electricity generated in the EU in 2024 came from RES, their share in generation by state varied significantly. The highest rates were recorded in Denmark (88.4%, mainly wind energy), followed by Portugal (87.5%, mainly wind and hydropower), and Croatia (73.7%, mainly hydropower). The lowest shares of renewable energy were recorded in Luxembourg (5.1%), Malta (15.1%), and Czechia (15.9%).

Equally significant are the disparities that exist across the EU in electricity costs, partly due to the fact that pricing policies, including taxes, remain the responsibility of individual states. In 2024, the most expensive electricity delivered to end users was in Germany (€0.39/kWh), Denmark (€0.37/kWh), Ireland (€0.36/kWh), and Belgium (€0.33/kWh), while the cheapest was in Hungary (€0.10/kWh), Bulgaria (€0.12/kWh), and Malta (€0.13/kWh). The price in Germany was 37% higher than the EU average, while households in Hungary, Bulgaria, and Malta paid less than half the EU average. Additionally, last year, transmission and distribution costs increased in 18 Member States, with the EU average increasing by almost 9 percentage points. The differences are also exacerbated by the uneven share of taxes and fees in the final price—highest last year in Denmark and Poland.

Affordable Energy Action Plan. As a result of the 2022 energy crisis, high and volatile energy prices remain a significant problem for the EU (wholesale prices have remained at least twice as high as in the U.S. and China in recent years), significantly weakening the competitiveness of the EU economy. The growing dynamics of energy price changes in the EU market have led, among other things, to Norway's announcement that it will withdraw from further integration in this area (it is not an EU member, but a member of the EEA). Therefore, the European Commission, implementing the Clean Industry Act and continuing its reform, announced in February of this year the Affordable Energy Action Plan (APAE), which aims to lower prices and increase the stability and resilience of the energy market.

The APAE anticipates the dynamic development of renewable energy generation and the associated energy-saving technologies, which will, among other things, increase energy efficiency. This requires deeper integration of the energy market and the expansion of interconnections. This will reduce EU energy spending by €45 billion in 2025 alone (expected to reach €130 billion by 2030 and €260 billion by 2040). In addition to a well-functioning short-term market, directly identified tools—long-term pricing mechanisms such as power purchase agreements (PPAs) and Contracts for Difference (CfD)—will play a key role in achieving the APAE's objectives. These tools are intended to mitigate price risk and increase investment predictability, supporting the development of the green energy sector. However, for such instruments to be attractive, they require state support, for example, by expediting permitting and

ensuring a stable regulatory framework. The challenges of increasing financing for the expected investments to over €650 billion therefore require giving strategic importance to PPAs and CfDs, key tools for securing effective decarbonisation in the EU energy transition.

Conclusions and Recommendations. The EU electricity market reform was designed with increasingly ambitious climate goals in mind, but in practice its success depends on the EU's ability to maintain economic competitiveness under strong external pressure, particularly from the U.S. and China. Achieving EU targets will be a challenge, given the need to stabilise the energy market and guarantee attractive prices. A key element of the reform is the dynamic development of RES, which, however, requires stable sources to balance the system. For an effective energy transformation, the Member States, including Poland, should ensure that the capacity market mechanism is improved so that it can serve as a tool supporting decarbonisation by keeping conventional units on standby.

The success of the reform also depends on further integration and closer cooperation between the Member States. This necessitates the modernisation and expansion of electricity grids, which will enable the necessary increase in system flexibility. The announced pre-emptive investments will be key in this endeavour by creating attractive conditions for long-term investments, including through access to public aid and other instruments that mitigate regulatory risk. This will require the greater involvement of the Member States' regulatory authorities, whose task is to ensure the transparency of the system, ensure connection capacity, and implement procedures for incorporating new generating units.

The pace and effectiveness of the EMD reform implementation will depend primarily on the Member States. They should pay particular attention to transparency and simplification of procedures at each project stage, as well as strengthen the investment attractiveness for the development of new capacity and efficiently increase system flexibility. However, given the trend of global trade tensions and significant differences in national energy costs, the risk of further market fragmentation and the dominance of particular Member State interests increases. To counteract these trends, national operators should further strengthen their cooperation, for example, through the EU ACER's expanded mandate. This will facilitate the implementation of cross-border interconnections and accelerate the development of energy storage systems, essential for the efficient management of surplus RES.

To further deepen energy market integration, the EU should also accelerate the standardisation of electricity infrastructure. This will reduce supply chain disruptions and increase the availability of components in Europe. The EC could also explore options for facilitating regional or EU-wide visibility in public procurement of network components and assess the potential for adapting EU regulations in this area.