



EU Clean Industry Deal: Strengthening Competitiveness in Green

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In the face of increasing trade pressure from the United States and growing competition from China, the European Union announced actions to rebuild the competitiveness of European industry, as included in the Clean Industry Deal (CID). Increasing the EU's economic independence while maintaining ambitious climate goals will be a challenge for the industry, especially if electrification based on renewable sources is assumed. Therefore, solutions supporting the attractiveness to businesses of EU production will be decisive, including through efficient deregulation and reduction of energy prices and especially in view of the growing dynamics of changes in the structure of global markets. The EU's flexible and adaptive approach to the energy transformation will be important here, in particular for countries still dependent on fossil sources, such as Poland.

The CID promises to increase the competitiveness of EU production while maintaining climate ambitions (a 90% reduction in emissions by 2040). The industrial sector was counting on a revision, as it is highly energy-intensive and still strongly dependent on fossil fuels. At the same time, the CID is to be a response to high electricity prices in Europe and the technological advantage of third countries, such as the U.S. and China. The European Commission (EC) assumes that by 2030, 40% of zero-emission technologies will come from domestic production, which is to strengthen the European supply chain system and reduce the EU's dependence on external partners. The Commission also supports the initiative of joint purchases of raw materials (in relation to the Critical Raw Materials Act) and the establishment of a special institution, the Critical Raw Materials Centre. The EU intends to reduce dependence on raw materials and imports of them by building a circular economy (the EC plans to adopt the Circular Economy Act in 2026, and by 2030 at least 24% of materials used in industry are to come from recycling).

Decarbonisation through Electrification. Within the CID, the Commission's priority remains the switch from fossil fuels to electricity from renewable sources. At the same time, the demand for energy in the EU is constantly growing and new

generation capacities are needed. According to estimates by the International Energy Agency, demand will increase by 1.7 percentage points annually in the years 2025-2027. The Danish company Ørsted estimates that the demand for energy in the EU will double and that the electrification of industry alone will mean an increase in energy consumption by 1,000 TWh per year by 2050. At the same time, the EC plans to electrify industry by 32% by 2030 (compared to the current 23%). The transformation capacity of the industry therefore remains limited, especially in a situation of persistent incompatibility of energy systems within the EU, where Member States present diversified production profiles and energy mixes with a different generation base.

Meanwhile, the international environment imposes on the EU the need to take immediate action (e.g., in relation to U.S. trade policy, China's competitiveness and market advantage, and the consistently high risks associated with the war in Ukraine). Therefore, effective energy transformation requires the Member States to, among other things, modernise and adapt existing infrastructure, mainly underdeveloped power grid systems. This is necessary to make the system available for RES, which can be unstable but ultimately will generate the vast majority of energy (in 2024, RES accounted for 48% of

electricity production in the EU, but with large discrepancies between states, e.g., in Denmark it was 88% and in Czechia only 17.5%). Another problem is the lack of a developed energy storage system and the inability to efficiently connect it back to the grid. This is related to insufficient flexibility of the system within the EU, which in turn requires the expansion of interstate connections.

At the same time, even the dominant position of renewable energy sources in energy production does not ensure the stability of supplies, as it requires balancing capacity in the system and a guarantee of a permanent, stable source. After eight years, in April this year, the EU decided to update the Illustrative Programme for Nuclear Energy (PNIC) to define the investment demand related to the construction of new reactors, extend the life of existing power plants, and manage spent fuel. The priority is the development of new technologies, including small modular reactors (SMR) or energy from nuclear fusion in future.

Support for Competitiveness. The EC wants to strengthen the competitiveness of industry without abandoning the goal of decarbonisation. While in the long term the energy transformation is justified, as a tool to increase business attractiveness in the short term it is a challenge, especially for an industrial sector burdened with climate requirements. Therefore, the EC intends to strengthen EU production through deregulation (some measures already announced), price reductions, and energy market reform, as well as protective policy towards domestic production. However, it still leaves most of the burden on companies and/or the Member States.

As part of the CID, the EC will, among other things, revise and simplify the CBAM (so-called border carbon tax) rules, focusing in particular on the cement, aluminium, electricity, and hydrogen sectors. Through this mechanism, it wants to protect EU production and counteract “carbon leakage”. As a result, up to 80% of companies will be exempt from, among other things, restrictive reporting obligations, while the rest will have simplified reporting procedures, among other things, but more stringent penalties in the event of abuse.

The future shape of the Emissions Trading System (ETS) is controversial, but for the EU it is an effective tool for reducing emissions (already by 5 percentage points in 2024 compared to 2023). Despite the demands of some Member States, including Poland, for at least significant modification of the system, it will be maintained and extended from 2026 to other industries (ETS2), such as construction and road transport. As a result of the rules, European producers pay almost five times more for a tonne of CO₂ emissions than Chinese companies, which significantly reduces the competitiveness of companies based in Europe.

Although the industrial sector positively assesses the announcements of EU actions to reduce energy prices—crucial given the significantly higher prices than in the U.S. and China—the tools indicated by the EC raise doubts. The recommended minimisation of tax rates for energy, which remains within the competence of the states, will have

a limited effect and differences within the EU will remain. Meanwhile, for industry, such as the metals and steel sectors, energy expenditures constitute a key part of production costs. Even before the energy crisis in 2022, they remained at the level of 17% and 40%, respectively, after which they increased to 80%, and are currently still at an uncompetitive level. Contracts for difference (CFD) and long-term power purchase agreements (PPA), preferred by the EC, are more effective, especially in the context of stabilisation and reducing the risk of energy price dynamics.

There is currently no clarity regarding a financial support mechanism, which is to include the established Industrial Decarbonisation Bank that will draw on the Innovation Fund and revenues from the ETS system. Concerns are also raised by changes in the rules for granting public aid, which are based on the capital of Member States, not the EU budget. This perspective means that greening the industry will require high expenditures from countries (including Poland), which, even if they want to effectively implement the energy transformation, will be burdened with the high costs of decarbonisation, which *de facto* make it difficult to compete on both the EU and global markets.

Conclusions and Perspectives. The unconditional maintenance of the priority of climate protection by the EC, which is currently confirmed by, among others, the CID, will be a challenge for the competitiveness of the EU economy. The dynamic development of RES will require stable sources, including, apart from gas, possibly nuclear energy. Therefore, EU support for this sector will be important, as initially announced by the ongoing review of the EU nuclear program. The electrification of industry may ultimately bring benefits for the competitiveness of European companies if it is supported by transparent regulations. This requires, among other things, a significant acceleration of administrative procedures, improvements of grid connections, and optimisation of the tariff system.

At the same time, rebuilding the competitiveness of EU industry will be all the more difficult the longer high and volatile energy prices persist, as they directly undermine the investment attractiveness of the EU. Price guarantees and market predictability will be partly ensured by long-term contracts and contracts for difference or the liberalisation of tax policy, which, however, provides limited possibilities in the face of diversified national solutions. The revision of trade mechanisms protecting industry from unfair competition from third countries is to support EU industry. At the same time, the EU's protective measures will be undermined by external partners and other states, such as China.

At the same time, the implementation of the CID assumptions will not be possible without the deregulation and simplification of rules of, for instance, public aid, as announced by the EC, which may deepen development differences within the EU. Therefore, it will be important, especially from the point of view of Poland, to maintain the criterion of the just transformation and to take into account regional conditions for the pace of modernisation of the industrial sector.