



# INDUSTRIAL TRANSFORMATION IN A TIME OF CRISIS

**How to keep our eye  
on the low-carbon ball**

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**CEPS Policy Brief  
November, 2022-09**

# SUMMARY

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The war in Ukraine and the ensuing energy crisis have shaken the European economy and put domestic energy-intensive industries under severe pressure. Heeding these concerns, EU policymakers have reasserted the objectives of the Green Deal and acknowledged the importance of a rapid energy transition for decarbonisation, industrial competitiveness, and energy security. However, to concretely support these objectives and reduce the risks for underinvestment in low-carbon energy and industry, EU climate and policy frameworks – as well as internal market rules – should be strengthened.

This CEPS policy brief makes recommendations regarding several potential avenues to achieve this.

First, policy attention should be given to creating a level playing field for low-carbon EU producers to compete not only with non-EU producers but also with conventional, higher-carbon producers within the EU. This may require a new approach regarding the definitions and boundaries of the benchmarks for free allocation in the EU ETS. Second, new revenue streams, including from free allowances, should be utilised to support transformational investments. Third, harmonised product and labelling rules for industrial goods can support internal market objectives and play an important role in boosting demand for climate-neutral goods.



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## INTRODUCTION

Europe's energy crisis is putting energy-intensive industries under severe pressure. At the same time, it is heightening the need to accelerate the transformation towards climate neutrality. The key challenge of the twin energy and climate crises is to ensure that investment in this transformation is not deterred but rather accelerated.

Unlike previously, all three elements of the '[energy trilemma](#)' (security, affordability and sustainability) point towards increased renewable energy and energy and resource efficiency as long-term solutions. In the short term, however, energy scarcity and supply chain constraints may result in Europe's energy supply being costlier, more carbon intensive, and more fragile.

Energy is more expensive due to the high price and constrained supply of natural gas, which also affects wholesale electricity prices. The high price of gas leads to more coal burning – and even oil – thereby pushing up emissions and pollution. On top of this, the reduced supply of Russian gas, combined with competition for LNG with Asia, as well as reduced nuclear capacities, means Europe's energy supply will be less secure over the next year.

The trilemma also reinforces the need to use our scarce (energy) resources wisely. Most energy-intensive industries can transform their production to climate-neutral processes, but many climate-neutral production pathways are highly energy-intensive, resource-intensive, or both.

Increased resource efficiency – achieved through more circularity – is therefore critical. While some low-carbon solutions (such as renewable hydrogen) are versatile, their use should be limited for sectors that cannot decarbonise in other ways. This is to prevent excessive demand for renewable energy or carbon capture and storage infrastructure.

### **THE EU COULD RADICALLY REFORM THE ENERGY POLICY FRAMEWORK IN RESPONSE TO THE ENERGY CRISIS, THOUGH IT SHOULD AVOID UNDERMINING THE FUNCTIONING OF THE ENERGY MARKET.**

The EU already has an extensive climate and energy policy framework in place, encapsulated by the Green Deal. **The EU could radically reform the energy policy framework in response to the energy crisis, though it should avoid undermining the functioning of the energy market.**

For climate policy, **the key challenge is to strengthen the industrial policy dimension** – geared towards investment. To facilitate this, the EU should not neglect its extensive internal market and competition competences.

## ACCELERATE INVESTMENT IN LOW-CARBON ENERGY AND RESOURCE EFFICIENCY

Climate policy is increasingly synonymous with industrial policy, especially where decarbonisation policies for energy-intensive industries are concerned. Industrial competitiveness and carbon leakage risk will remain high on the agenda, especially with the high energy prices that Europe is currently experiencing.

There are significant challenges for industrial production and the competitiveness of European industries as gas and electricity prices hit record levels. **These steep prices are the result of high commodity prices, not carbon prices or the design of the energy market itself.**

**INVESTMENTS IN LOW-CARBON TECHNOLOGIES SHOULD NOT BE DELAYED BUT RATHER ACCELERATED. THE POLICY FOCUS SHOULD MOVE BEYOND EARLY-STAGE INNOVATION TOWARDS DEPLOYMENT AND SCALE-UP.**

There is a risk that the high energy prices may impact the ability (and willingness) of industrial producers to invest in low-carbon technologies, especially the more transformational technologies that are required to reach climate neutrality by 2050. With high energy prices driven by fossil fuel commodity prices, moving away

from fossil fuels in industry towards electrification based on a carbon neutral power supply remains critical. As such, **investments in low-carbon technologies should not be delayed but rather accelerated.** The policy focus should move beyond early-stage innovation towards deployment and scale-up.

## INDUSTRIAL COMPETITIVENESS – NOT JUST ABOUT FOREIGN COMPETITION

The competitiveness of low-carbon EU producers should not only be measured against the competitiveness of non-EU producers, but also against conventional, higher-carbon producers within the EU. If EU policy undermines the competitiveness of low-carbon production or investment *vis-à-vis* any higher-carbon producer, this too is a form of carbon leakage over time.

As the EU develops more policy instruments that focus on low-carbon technology deployment (which is at the core of current industrial policy more broadly speaking), the level playing field between low-carbon and conventional producers becomes more important. The definitions and boundaries of the benchmarks for free allocation in the EU Emissions Trading System (ETS) are just one example. If these benchmarks are too technology-specific, lower-carbon technologies may be disadvantaged if this results in lower levels of free allocation.

The benchmarks can also impact how new instruments, such as carbon contracts for difference (CCfD), play out. CCfDs bridge the gap between the carbon price and the price required to make a low-carbon production method competitive. However, this ‘strike price’ could be affected by how many free allowances competing producers (using conventional technology) receive.

## CREATE REVENUE STREAMS TO SUPPORT TRANSFORMATIONAL INVESTMENTS

EU industrial policy design should focus on the bankability of low-carbon investments to draw in corporate/private finance. Here, predictable and structural revenue streams – which can be initially publicly financed but eventually should be market-based – are more attractive than one-off funding injections awarded through administrative procedures. Both CCfDs and free allocation could play such a role.

### EU INDUSTRIAL POLICY DESIGN SHOULD FOCUS ON THE BANKABILITY OF LOW-CARBON INVESTMENTS TO DRAW IN CORPORATE/PRIVATE FINANCE.

In the case of free allocation, this represents a different rationale from typical carbon leakage risk protection. Free allowances nevertheless represent significant value – worth hundreds of billions of euro – especially when compared to the size of existing funding instruments, such as the [ETS Innovation Fund](#). If free allowances are

used to support innovation, it follows that allocation in excess of a producer’s greenhouse gas (GHG) emissions should no longer be seen as problematic as the free allowances represent a revenue stream.

## THE INTERNAL MARKET MATTERS

The EU should make use of its extensive competence to harmonise rules within the internal market. Product and labelling rules, which may emerge to distinguish ‘green’ from conventional industrial goods, can play an important role in boosting demand for climate-neutral goods.

A proliferation of different labelling systems with varied approaches and focus across Member States can increase costs and undermine investment in addition to GHG emissions, which are not the only concern within the realm of environmental

Harmonising regulation can also be relevant for the market entry of certain low-carbon technologies. Some industrial goods may be affected by regulation in end-use sectors, such as construction or the automobile value chain. In the case of CO<sub>2</sub> transport and storage infrastructure, common rules on CO<sub>2</sub> specifications could support interoperability and competition along the CCS value chain.

## CONCLUSIONS

Just as with the Covid-19 pandemic, the energy crisis and the Russian invasion of Ukraine risk pulling policymakers' attention away from climate policy, and in particular the need to create a policy and regulatory framework that supports increased investment in low-carbon technologies.

Policymakers have recommitted themselves to the Green Deal and acknowledged that a successful energy transition supports decarbonisation, industrial competitiveness, and energy security in the long run. Nevertheless, there is a risk of fiscal expenditure – in response to the crisis – crowding out investments in industrial transformation. Another risk is fiscal capacities diverging to the point of affecting the speed of industrial transformation across the Member States.

Hence, EU climate and policy frameworks – as well as internal market rules – should be further strengthened to support accelerated investment in low-carbon energy and industry. Some potential avenues include changing the definitions and boundaries of the benchmarks for free allocation in the EU ETS, using free allowances to support innovation, and harmonising product and labelling rules for industrial goods.



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