Shaping a Competitive and Sustainable Future for European Energy-Intensive Industries under the EU ETS Post-2030

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1 Executive Summary

The undersigned Energy-Intensive Industries (EIIs) support the European Union's ambition to achieve climate neutrality by 2050 and the intermediate target of at least 55% net greenhouse gas (GHG) emission reduction by 2030. This transition will require breakthrough technologies, significant investments and an enabling policy framework. The EU Emission Trading Scheme (ETS) is a cornerstone of this policy mix but additional enabling conditions are indispensable, such as availability of low-carbon energy sources, massive investments in grids developments and demand-side markets effectively valuing renewable and low-carbon products. If these enabling conditions are not met, full decarbonisation is impossible, regardless of the content of the revised ETS Directive.

As the EU looks towards the post-2030 ETS framework, it is imperative that the revised system safeguards the global competitiveness of European EIIs by maintaining robust carbon leakage protection while enabling the massive investments required for the transition. Critically, a simple extrapolation of the existing ETS cap reduction beyond 2030 implies that this cap would reach zero around 2040, which is about 10 years before the decarbonisation target as set in the EU Climate Law. This is unrealistic as it would mean that industry needs to be fully carbon-neutral by around 2040 or stop production. At the same time, the renewable and low-carbon energy sources required for decarbonisation – such as renewable and low-carbon hydrogen, low-carbon electricity, and biogas – are not available at the necessary scale and internationally competitive costs. Neither are vital infrastructures for such energy carriers and for CO2 in place – or even under planning/construction. These exogenous factors should be taken into account when defining the decarbonisation timeline and trajectory for energy-intensive industries under the EU ETS. While the system has been effective in delivering early emissions reductions, it does not currently provide a viable business case for the decarbonisation of energy-intensive industries in the EU.

The undersigned Energy-Intensive Industries (EIIs) urge the European Union to revise its Emission Trading Scheme (ETS) post-2030 to ensure continued industrial competitiveness and realistic decarbonisation pathways.

Key recommendations developed in this paper include:

- Strengthened Carbon Leakage Protection: ensure robust protection to all exposed sectors from direct and indirect carbon costs, both for domestic sales and extra EU exports. Conditional free allocation and punitive Cross-Sectoral Correction Factors (CSCFs) must be avoided. Indirect cost compensation remains crucial.
- Adjusted Decarbonisation Pace: The current Linear Reduction Factor (LRF) of 4.3% should be reviewed post-2030. The current trajectory, leading to a near-zero cap already by 2040, is deemed unrealistic as it would mean that industry has to be carbon-neutral by that date or stop production. More time is needed to deploy nascent low-carbon technologies and secure energy infrastructure. The overall ETS cap trajectory must be fundamentally reviewed.

- Realistic Benchmarks: Benchmarks for free allocation must be representative, technologically achievable, and economically viable, based on resources available across Europe.
- Free Allocation Share: increase the free allocation share of the ETS cap (currently 43%) to adequately reflect the different rates at which the industrial and power sectors are decarbonising.
- Adapt the MSR Functioning: stop the invalidation of allowances in the Market Stability Reserve (MSR) and allow them to be used to prevent CSCF or fund decarbonisation efforts. MSR intake/release rates should be reviewed to increase market liquidity.
- Competitive Energy Prices: develop a comprehensive energy strategy to ensure affordable, secure, and low-carbon energy for industry, including accelerated renewable deployment and robust infrastructure. The ETS impact on (direct and indirect) energy costs should be investigated.
- Financial and Permitting Support: drastically reduce bureaucratic hurdles for decarbonisation projects and redirect a greater portion of ETS auction revenues directly to support industrial decarbonisation (both CAPEX and OPEX).
- Leveraging New Technologies: explore the strategic use of high-integrity international credits and develop robust frameworks for carbon removals (DACCS, BECCS) and Carbon Capture and Utilisation (CCU), ensuring their recognition in the ETS.

2 Introduction

Energy-intensive industries (EIIs) provide direct employment to around 2.6 million people in the EU and represent the foundations of critical and strategic value chains for the EU economy and society.

Our sectors are able and willing to play a leading role in the green transition, investing heavily in breakthrough technologies and innovative processes to reduce emissions, if an enabling policy framework is put in place to do this competitively.

As the public consultation on the 2026 EU ETS Directive review is launched, it is crucial that the Commission draws meaningful lessons from past experiences and proposes a predictable framework.

At the time the EU ETS was established, the long-term expectation was that over time, a global carbon market could be created; this would level the playing field internationally, avoid carbon leakage, and enable cost-efficient climate action on a global scale. However, 20 years later, that expectation has not been met: this has left the EU ETS operating in an isolated landscape, where the European industry faces rising carbon costs that competitors elsewhere do not (or much less).

Despite this fact, the EU ETS has been an important instrument in driving early emission reductions, in particular in the power sector, characterised by lower marginal abatement cost options and not significantly exposed to trade. However, the increasing speed of the ETS cap decrease, coupled with persistently high energy prices and a global landscape where

equivalent carbon pricing mechanisms are scarce or non-existent, presents significant challenges to the global competitiveness of European EIIs and the viability of new investments in the EU. Due to that, emissions reductions registered in the last years in our sectors are primarily related to production disruption or reduced industrial plants capacity, affecting both energy efficiency and economies of scale.

As discussions commence on the post-2030 ETS architecture, it is crucial to learn from past experiences and design a framework that is both environmentally effective and economically sustainable.

3 The Current Landscape: Challenges for EU Energy-Intensive Industries

EU EIIs operate in a uniquely challenging economic environment, facing a confluence of pressures that threaten their global competitiveness and ultimately their capacity to invest in the green transition:

1) **High energy prices**: European industries are faced with some of the highest energy costs globally. Electricity and gas in the EU are currently more expensive than outside of the EU (+150% and +300% respectively compared to China and US[1]), severely hampering electrification efforts and increasing carbon leakage risks.
2) **Risk of carbon and investment leakage**: the EU ETS, while effective in pricing carbon, imposes significant direct and indirect carbon costs. Unlike many global competitors, EU industries bear a substantial carbon cost burden, which leads to a significant competitive disadvantage, progressively translating into de-industrialisation and job losses within the EU.
3) **Uncertain business case for investments in decarbonisation**: the lack of readily available and affordable low-carbon energy sources (like renewable and low-carbon hydrogen or electricity at competitive prices), and the absence of market valuation for lower carbon goods, mean there is currently no clear business case for the massive low-carbon investments required to reach the climate neutrality target by 2050. As an example, even if a very effective low-carbon technology based on green hydrogen is available, nobody will invest in it today as there is no green hydrogen available on the market. In several sectors, this domestic perspective is aggravated by the effects of global excess capacities. Achieving climate neutrality requires unprecedented investments in new, sometimes unproven, renewable and low-carbon production technologies (e.g., electrification, renewable and low-carbon hydrogen, Carbon Capture, Utilisation, and Storage (CCUS)). The Commission's impact assessment accompanying the 2040 climate target communication shows that the industrial sector would be expected to increase investments by a factor of 7 compared to the last decade. These investments entail higher CAPEX and significantly higher OPEX, carry significant risks and require a stable, long-term

[1] Source: Draghi Report "The future of European competitiveness -Part A"– page 15.

policy and financial framework to be viable. It also requires customers to be willing to pay the premium for renewable and low-carbon products.

4) **Lack of infrastructure**: to allow EIIs to decarbonise, not only are renewable and low-carbon energy carriers needed, but the corresponding infrastructure needs to be deployed as well at competitive costs. The necessary reinforcement of the electricity grid is a substantial infrastructure challenge that needs urgent attention, as the development of pipes for transporting hydrogen or CO_2 between the industrial sites and to the permanent storage locations or other industrial sites are utilising it. Alternative sources for financing the grids investments should be developed, besides the network tariffs, as concluded during the recent Energy Infrastructures Copenhagen Forum. Bureaucratic hurdles for industrial transformation projects and associated infrastructure (e.g., CO2 pipelines, hydrogen networks) prevent their rapid deployment.
5) **Insufficient funding and financing**: while the Clean Industrial Deal (CID) announces upcoming industrial decarbonisation initiatives (e.g., the Innovation Fund or the Decarbonisation Bank) they are not yet sufficient in scale, scope or speed to solve these profound structural issues to reach the 2050 target, especially considering the long investment cycles of our industries. Funding can enable individual projects, but to make the transition possible at scale, effective demand for lower carbon products is also indispensable.

4 Key Principles for a Post-2030 EU ETS

The ETS should encourage emissions reductions without jeopardising the existence of strategic European industries. To ensure the EU ETS becomes a driver of sustainable growth and industrial competitiveness, the undersigned sectors propose the following guiding principles for its 2026 revision that would impact the post-2030 era:

1) Preserving global competitiveness: Given the variety of climate regimes around the globe, and with the objective to promote renewable and low-carbon solutions championed by EU EIIs, mechanisms to support global competitiveness both in the EU and in export markets must accompany the post-2030 EU ETS regime.
2) Providing predictability, stability, and long-term horizon: A clear, long-term regulatory framework, considering industrial investment cycles, is paramount for investment planning. Investments made today will be in operation well beyond 2040. The ETS trajectory must provide a realistically achievable and stable outlook. Frequent and unpredictable changes to the ETS rules undermine investor confidence and delay critical decarbonisation projects.
3) Maintaining ETS market liquidity: Innovative/flexible solutions, such as the cessation of the invalidation mechanism and the restoration of invalidated allowances, are urgently needed to maintain a certain liquidity in the ETS market which, according to the

Commission, might be affected by "a shrinking cap" and consequently make "the market more liable to price spikes"[2].

4) Supporting innovation and breakthrough technologies: ETS revenues should be targeted to actively support the development and deployment of renewable and low-carbon technologies and manufacturing processes for CAPEX and OPEX, recognising the significant upfront costs and risks involved.
5) Ensuring fairness and proportionality: Climate ambition must be balanced with the economic realities and technical feasibility of decarbonisation across different industrial sectors. A fair contribution to the 2040 target is necessary from all segments of the EU society, especially those less impacted than industry by competitiveness and relocation risks.
6) Demand side measures are desperately needed: the EU ETS focuses on the manufacture and supply of renewable and low-carbon products, but the only way to achieve industrial decarbonisation in the EU at scale, is by creation of new markets for low-carbon goods while taking into account the whole life-cycle of products, including sourcing, end-of-life and recycling.. Absent an increased value for low-carbon products, there is no business case to invest in decarbonisation.

5 Recommendations for the Post-2030 EU ETS

Based on the principles above, the undersigned Energy-Intensive Industries put forward the following concrete recommendations in the context of the post-2030 revision of the EU ETS:

5.1 Ensure robust Carbon Leakage Protection

A robust system of carbon and investment leakage protection for CBAM and non-CBAM sectors, addressing direct and indirect costs, must be secured beyond 2030, both for domestic and extra-EU sales e.g. under the form of free allocation.

This free allocation system should genuinely reflect the technological feasibility (realistic benchmark) and avoid any conditionality or punitive cross-sectoral correction factors that disproportionately reduce allowances for hard-to-abate industries.

The indirect cost compensation needs to remain a key part of the carbon leakage protection measures of the EU ETS Directive, also given the expected prominent role of marginal price setter of Combined Cycle Gas Turbine in the EU mix. Fossil-fuel fired power plants projected to be at the margin of the merit-order in spot markets well beyond 2033.

5.2 Make sure benchmarks are representative, technologically achievable and economically viable

Benchmarks used to determine the amount of free allocation need to be realistic and representative. It is crucial they are based on technologies, infrastructure and resources available equally across Europe. For instance, in several cases the current applicable

[2] European Commission (2025) Public consultation: EU emissions trading system for maritime, aviation and stationary installations, and market stability reserve – review.
[3] JRC Science Brief for Policy, The Merit Order and Price-Setting Dynamics in European Electricity Markets, 2023

benchmarks include scarce resources or technologies with zero greenhouse gas emissions (e.g. biomass or exothermic heat) that are not widely available. This methodology drives the resulting benchmark to unrealistically low levels, while the underlying resource or technology is not available for all countries in Europe. Moreover, the use of biomass is also not suitable for production processes in every sector, especially those processes that require high-temperature heat.

5.3 Review the Linear Reduction Factor (LRF) after 2030

A simple extrapolation of the existing ETS cap reduction beyond 2030 implies that this cap would reach zero around 2040, which is about 10 years before the decarbonisation target as set in the EU Climate Law. This is unrealistic as it would mean that industry needs to be fully carbon-neutral by around 2040 or stop production. At the same time, the renewable and low-carbon energy sources required for decarbonisation – such as renewable and low-carbon hydrogen, low-carbon electricity, and biogas – are not available at the necessary scale and internationally competitive costs. **More time is needed to allow industry to deploy the low-carbon technologies which are under development, ensure low-carbon sources are available, and grids are refurbished to transport them.**

On this basis, and taking into consideration the previous recommendations, the Commission must fundamentally review this trajectory.

Finally, the 2023 EU ETS Directive introduces a conditional element to free allocation, making 20% of it dependent on meeting certain criteria. This approach weakens the system's ability to protect against carbon leakage. Even when installations meet the requirements for free allocation based on their benchmarks, they could still be exposed to higher carbon costs—already more burdensome than in many other regions—if they fail to secure the conditional 20%. This increases the likelihood of carbon leakage.

5.4 Maintain the current Carbon Leakage list

The current carbon leakage list should be maintained as it is today (used for the 2021-2030 period) as the methodology is already strict, combining stringent emission intensity and trade exposure requirements. Modifying the list may contradict the EU's goals under the Clean Industrial Deal, which aims to bolster Europe's competitiveness while advancing decarbonisation efforts.

5.5 Make allowances from the Market Stability Reserve (MSR) available to the market

The Market Stability Reserve (MSR) should be adjusted to address the current challenges and secure the transformation of the industry.

Invalidation of allowances in the MSR should be stopped immediately (and well before 2030). Allowances taken in the MSR should not be permanently removed when a certain threshold is reached. Instead, they should be retained in the reserve for future use—e.g. to prevent a Cross-Sectoral Correction Factor (CSCF), or to support decarbonisation efforts, such as through funding the Industrial Decarbonisation Bank. The MSR's intake and release rates should also be reviewed to ensure enough liquidity is maintained in the market.

The operational interplay between the Market Stability Reserve (MSR) and the integration of negative emissions technologies should be clarified. Specifically, how will the MSR adjust its parameters and mechanisms in response to the growing deployment and certification of negative emissions.

5.6 Ensure Competitive Energy Prices

The EU needs a comprehensive energy strategy that prioritises the availability of affordable, secure, and low-carbon energy for industrial consumers. This includes accelerating renewable and low-carbon energy deployment, facilitating access to competitive renewable and low-carbon hydrogen, and ensuring robust energy infrastructure, including the necessary reinforcement of the electricity grid and the development of infrastructures for CCUS. To this end, the Commission should investigate the impact of the ETS, including the Market Stability Reserve, on energy costs for energy-intensive industries and take corrective measures if needed.

5.7 Increase the industrial share of the ETS cap for industry compared to the power sector

The current share of the ETS emissions between the power sector (57%) and the EIIs (43%) was defined ahead of the 2013-2020 phase, based on the historical share observed in the 2005-2007 phase adjusted only for new entrants in 2008-2012[4], and also needs to be updated. Industry share should therefore be increased to adequately reflect the different rates at which both sectors are decarbonising.

This could help avoid the need for a cross-sectoral correction factor.

5.8 Allow Strategic use of International Credits

The strategic integration of high-integrity international credits (i.e., under Article 6 of the Paris Agreement) should be explored, while prioritising financial resources on European projects. This would support liquidity, provide additional flexibility for compliance, reduce overall decarbonisation costs for European industry by enabling access to more economically effective abatement opportunities globally, and contribute to global emission reduction efforts, fostering a broader and more liquid carbon market. Drawing experience from the past (Phase 3), such credits should of course adhere to strict environmental integrity standards to ensure genuine and verifiable emission reductions and avoid double counting.

Some pilots could be tested over time to then effectively implement the possible use of international credits for ETS compliance afterwards.

5.9 Promote Carbon Removals

A robust and credible framework for technology-based carbon removals (such as Direct Air Carbon Capture with Storage or Bioenergy with Carbon Capture and Storage) must be developed. The Commission ought to carefully assess how these credits can be potentially integrated into the ETS or a complementary mechanism. The development of a purchasing programme under the Carbon Removals Certification Framework needs to be aligned with the 2026 EU ETS review. This will be indispensable for addressing residual emissions from

[4] ETS Directive 2009/29/EC.

hard-to-abate sectors and achieving net-zero targets, offering crucial flexibility in decarbonisation pathways. Such flexibility should focus on hard-to-abate emissions in industrial sectors, since scarce resources like biomass should prioritise feedstock and very high temperature processes.

The Commission should propose an adequate accounting framework that encourages carbon capture and utilisation projects. The 2021 Sustainable Carbon Cycles communication sets out clear aspirational targets for decreasing the use of virgin fossil fuels. The 2026 EU ETS Directive review is an opportunity to ensure that energy-intensive industries can expect a stable revenue stream for their investments.

5.10 Promote Carbon Capture and Utilisation

Together with carbon capture and storage, Carbon Capture and Utilisation (CCU) can play a critical role in the energy transition, as it offers a viable decarbonisation pathway for hard-to-abate sectors, fosters a circular carbon economy by promoting the reuse of captured carbon, and can accelerate the transition towards climate neutrality. Hence, CCU is not only a technological option, but also a strategic necessity. Therefore, it is crucial that all avoided CO2 emissions for CCUS are recognised in the ETS Monitoring and Reporting Regulation (MRR). It should be noted that although CCU is currently recognised in article 12(3b), there are too stringent requirements on the final products for which the captured CO_2 is used. For the majority of products, requirements related to permanence and zero emissions at the end-of-life stage are impossible to fulfil and discriminate CCU products over fossil-based products, where such requirements do not exist. The ETS foresees a revision in 2026 to include other CCU materials, however, to not further hamper CCU developments, it is key to provide clarity on the future rules as soon as possible.

5.11 Enhance and Streamline Support for Industrial Transformation

Redirecting a greater portion of ETS revenues from auctioning to ETS Sectors: according to the European Commission report on the carbon market, only a minor fraction (3%) of the auctioning revenues managed by the Member States is used to finance industrial decarbonisation. In addition, the Innovation Fund currently finances a very wide range of technologies well beyond energy-intensive industries. To further focus societal efforts on the fight against climate change, a substantial portion of ETS revenues should be earmarked and directly re-invested into the decarbonisation of ETS sectors, both on the CAPEX side (expansion of Innovation Fund mechanism and continuation of the Modernisation Fund) but equally important on the OPEX side, to enable such projects to ensure competitiveness during operation. Transparency of these investments must be ensured.

6 Conclusion

The undersigned Energy-Intensive Industries are committed partners in the EU's journey towards climate neutrality. Our sectors are vital for the EU's strategic autonomy, economic prosperity, and the delivery of essential materials for the green transition itself.

The 2026 revision of the EU ETS presents a critical opportunity to refine the EU's flagship climate policy instrument post-2030. It will define the success of the EU climate policy: will the EU succeed in decarbonising its industry, or will it continue to deindustrialise?

The EU Emission Trading Scheme (ETS) is a cornerstone of the EU Climate policy but additional enabling conditions are indispensable, such as availability of low-carbon energy sources and massive investments in grids developments. If these enabling conditions are not met, full decarbonisation is impossible, regardless the content of the revised ETS directive.

The future framework should be based on adopting a realistic, pragmatic and supportive approach that reflects the energy-intensive industries economic reality, prioritises predictability for industrial decarbonisation investments aligned with investment cycles, ensures global competitiveness of EU industries and low-carbon products in domestic and export markets, provides targeted and sufficient support for innovation (including CCU/S and carbon removals), and fosters fair burden sharing. The current lack of a business case for renewable and low-carbon investments must be urgently addressed, and key changes to the design of the EU ETS, such as the strategic use of international credits and the inclusion of carbon removals, can contribute to this.

At the same time, demand side measures are urgently needed: the EU ETS focuses on the supply side, but it is not able to provide a viable business case for investments in renewable and low-carbon technologies.

We urge policymakers to engage in a constructive dialogue with EU energy-intensive industries to design an ETS framework that not only meets ambitious climate targets but also secures a competitive and sustainable future for EU manufacturing.

7 List of signatories

1) Cefic – The European Chemical Industry Council
2) Cembureau - The European Cement Association
3) Cepi - The Confederation of European Paper Industries
4) Cerame-Unie – The European Ceramic Industry Association
5) EIGA – The European Industrial Gases Association
6) EuLa – The European Lime Association
7) EuroAlliages – The Association of European Ferro-Alloy and Silicon producers
8) Eurofer – The European Steel Association
9) Eurometaux – The European non-ferrous metals association
10) Euromines – The Association of the European mining industries, metal ores and industrial minerals
11) EXCA – The European Expanded Clay Association ASBL
12) Fertilizers Europe – The Association of fertilizer producers
13) FuelsEurope – The European Fuel Manufacturers Association
14) Glass Alliance Europe – The Association of European Glass Industries
15) IFIEC Europe – The umbrella organisation representing industrial energy consumers

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