



Hydrogen  
Europe

# **Bolstering the business case for decarbonisation through a revised Emissions Trading System**

*Hydrogen Europe position paper*

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## 1. Summary

The EU's Emissions Trading System (ETS) has been a global success story as far as climate policies are concerned. The ambition driven by the scheme is evident, as the EU has lowered its industrial carbon emissions in the covered sectors by half since 2005, while overall GDP grew in the same period. It is even more impressive to see that this abatement dynamic directly correlates to the EU ETS's increasing ambition (63% emission reduction by 2030, compared to 1990 levels), where the ETS cap, the constant reduction of overall emissions and free allowances clearly drive industrial decarbonisation. It is therefore essential that the ETS revision process does not jeopardise this clearly effective and successful tendency. Hydrogen Europe proposes these recommendations to advance Europe's industrial decarbonisation through a robust EU ETS in the industrial, maritime and aviation sectors.

### Recommendations

#### Technical elements:

- Keep the ambition of the linear reduction at a rate that supports the 2040 and 2050 climate targets.
- Continue the Indirect Cost Compensation scheme beyond its original 2030 timeline.

#### Industry:

- Retain the ambition of the free allowance phase-out, especially driven by (and dependent on) the phase in of a robust and effective Carbon Border Adjustment Mechanism (CBAM).
- Design a system of convertible allowances linked to verifiable specific investments and offtake contracts.
- Through the design of the convertible allowance instrument, address the OPEX gap between conventional and decarbonised solutions, underscoring the support for *Clean and European*.

#### Aviation:

- Prolong the ETS SAF allowance mechanism in time over a minimum 10-year period (2030-2040).
- Expand the volume of Sustainable Aviation Fuels (SAF) allowances in line with the CO<sub>2</sub> saved as per the EU SAF mandate and link access to allowances to offtake agreements or other legally binding contracts.
- Focus the support where the price gap with conventional jet fuel is the highest (eSAF).

#### Maritime:

- Create a system of Sustainable Maritime Fuels (SMF) allowances narrowing the price difference between SMF and conventional bunker fuels.
- Set aside 40 million allowances of ETS SMF allowances in line with the CO<sub>2</sub> saving potential of a full-uptake scenario of FuelEU Maritime (FEUM) in the period 2030-2035.
- Define eligibility criteria for renewable and low-carbon maritime fuels, and differentiate support level by fuel class, depending on the cost gap with the conventional bunker fuels.
- Recognise in the design of the scheme the diversity and complexity (multiple vessel/fuel types) of the maritime fuel markets.

#### Use of revenues:

- Ensure a stable and predictable allocation of ETS revenues towards EU-level instruments that support deep industrial decarbonisation.

## 2. Background

In 2025 the European Parliament and Council agreed to set a binding target to reduce net greenhouse gas emissions in the European Union by 90% by 2040 compared to 1990 levels, keeping the EU on track to achieve its carbon neutrality target by 2050. To achieve this ambitious target, the EU's ETS needs to undergo a revision process. In 2026, therefore, the European Commission is to evaluate the fitness of the scheme, amongst others, assessing the role of carbon removals, scope extension (both regarding sectors and greenhouse gases), and carbon leakage action - not least in the context of CBAM.

As global crises are leading to energy price increases in Europe, putting pressure on energy-intensive industries, energy markets, and overall competitiveness, the ETS revision is becoming increasingly politicised. It is important to be critical and update the ETS to fit the new global order. However, it is imperative that the ETS is not abandoned and its ambition – the main driving force behind Europe's decarbonisation – is not scaled down, so that decarbonisation is incentivised and early movers are not punished but rewarded. This is even more imperative as the ETS underscores the competitiveness of European decarbonisation solutions vis-à-vis fossil-based alternatives, reducing long-term reliance on traditional energy sources.

## 3. Industry

### 3.1 Keep the ambition of the linear reduction at a rate supporting the revised 2040 target, pointing to 2050 carbon neutrality; continue the indirect cost compensation scheme beyond 2030

The ETS's linear reduction factor (LRF) is the annual decrease of the cap of total emission allowances in the system. It is the bedrock of the scheme, aligning the ETS with the EU's climate ambition and providing a realistic scenario. As the 90% emission reduction target has been enshrined in the EU's Climate Law, continued ambition in the ETS is unquestionable, to which a continued high LRF rate is essential.

The ETS indirect cost compensation scheme (ICC) has become an integral part of the functioning, effectiveness and ability to decarbonise of Europe's industry. The way the ETS and the European electricity market are set up necessitates that the impact of the carbon price in electricity prices is alleviated, especially as increasing electrification of heavy industries is underway. The bankability of industrial decarbonisation projects, such as large-scale electrolysis-based and other hydrogen production plants rests on the long-term availability of the ICC. With the current Renewable Fuels of Non-Biological Origin (RFNBOs) eligibility framework enshrined in the Renewable Energy Directive framework, the commercialisation of RFNBOs in most Member States continues to rest on the ICC. As the current ICC guidelines are only in force until the end of the current ETS phase, i.e. until 2030, the update of these is timely. Therefore, the ICC scheme should be made permanent, or at the very least extended beyond 2030.

### 3.2 Retain the ambition of the free allowance phase-out, especially driven by and depended on the phase in of a robust, truly effective CBAM.

Free allowances were introduced into the ETS regime to solve the issue of carbon leakage, or the tendency of operators to relocate their industrial production from the European market in order to avoid ETS compliance costs. The free allocation mechanism was aimed to be a temporary solution to the problem, and it is currently being phased out in key sectors, along with the phasing in of the CBAM.

When the CBAM is fully phased in and extended to effectively cover all ETS sectors prone to carbon leakage, it is to act as the EU's solution to the problem.

In December 2025, the European Commission proposed amending the CBAM to expand its scope and close loopholes, aiming to reinforce the scheme as a fair carbon pricing tool. However, the inclusion of a temporary suspension mechanism (Article 27a), allowing goods to be removed from the CBAM in cases of “severe harm” to the internal market, risks undermining trust in the system and deterring climate investment, leaving first-movers at a significant disadvantage. **We therefore recommend removing Article 27a from the CBAM revision.**

With a robust and effective CBAM, the need for free allocation as a carbon leakage prevention tool would diminish, as Europe's industries will be at a level playing field vis-à-vis global competition. Extended free allocation without conditionality mechanisms to industrial actors would remove a major incentive to decarbonise. It is evident that the continued availability of abundant free allowances is slowing down the increase of the carbon price. This in turn makes decarbonisation solutions less economically viable, keeping unabated processes not only feasible, but profitable. Therefore, avoiding carbon leakage remains key for the continued success of the ETS and the ability to invest in the EU. **Maintaining ambition on the phase-out of free allowances (for products effectively covered by CBAM) is essential for the well-functioning of the EU's carbon market – both of its ETS and CBAM schemes -, and for industrial decarbonisation in Europe.**

### 3.3 Conditionality mechanism for free allowances

It is well documented that the past decade entailed a series of market shocks in energy intensive industries in Europe, including grinding to a halt during the COVID19 pandemic in 2020 and the energy price crisis caused by Russia's invasion of Ukraine in 2022. These crises made it particularly difficult for energy intensive industrial actors to undertake the necessary efforts in decarbonising their high emission processes. Such an industrial shock is foreseen in 2026, as ongoing wars are pushing fuel prices up. Nevertheless, it has been reinforced by the EU in its 2040 update to its Climate Law that a business-as-usual scenario is unacceptable, and industrial decarbonisation is not a path to backtrack on. In fact, it is even more visible that Europe's resilience, competitiveness and sovereignty depend on phasing out fossil fuels, especially from unreliable third countries, and integrating clean molecules. Still, to alleviate pressure on industrial stakeholders affected by this series of crises, it is important to consider alternative ways of free allocation, without impairing the EU's carbon market.

Free allocation conditionality mechanism with bonus for decarbonisation effort

Although free allocation is a tool for mitigating the problem of carbon leakage potential, its value has long been measured into the business case of industrial projects. Still, free allocation can also be a tool to encourage further investment into decarbonisation, for instance through a conditionality mechanism. Linked to free allocation, it can reward decarbonisation effort and push the industry towards a clean future, facilitating competitiveness vis-à-vis high-emission local production. The mechanism would be designed along the following rule: **companies investing in clean and European production benefit not only from lower CO<sub>2</sub> costs but also receive additional free allowances – at a level that bridges, over a certain period, the OPEX gap between conventional and decarbonised solutions.**

In essence, the mechanism could link decarbonisation effort to free allowances. Thus, first-movers and early adopters could be rewarded for their effort, while free-loaders regarding EU-level

decarbonisation can be incentivised toward abatement. This would in turn also encourage both the production and offtake of **clean, European-made products**.

The **existing rules for free allocation would not need to be changed**. Instead, purchased (and surrendered) allowances would be used and converted into free allocation that is linked to specific investments and offtake contracts (e.g. switching from fossil gas to renewable), in addition to a strong climate neutrality plans conditionality, already in place. Reference to this can be made as **conditional or convertible allocation**.

As in sectors such as hydrogen, steel, fertilisers etc., the CBAM factor steadily decreases the number of free allowances an installation receives, the value of allowances will increase, providing a growing incentive to decarbonise. It is imperative that the bonus mechanism does not hamper the ongoing phase out of the free allocation and the phase-in of the CBAM.

Not all (sub-)sectors and sites within a given sector are capable of the same level of carbon abatement, especially not at the same speed. Similarly to how a robust benchmarking underscores the system of free allowances currently, a set of criteria shall be devised to give structure to the scheme, acknowledging technical, physical and economic differences, creating a technologically neutral, level playing field for industrial installations under the scheme. The conditionality as to the required decarbonisation progress of an installation must be based on robust, science-based criteria, considering the state of the art, technological and economic feasibility, and emission abatement potential. This will feed into the robust audit capability of the EU ETS' Monitoring, Reporting and Verification (MRV) framework.

The Innovation Fund would continue to support CAPEX investments, while the conditional allocation addresses the OPEX side—which is crucial, as new, clean energy is generally more expensive than conventional energy sources (unlike energy efficiency measures, where operating costs decrease). The advantage of the proposed scheme is that companies do not have to apply to a fund where the chances of success are low and bureaucracy high.

To make sure that such a bonus system does not put undue pressure on budgets, eligible sectors can be limited to European industries, where the production of decarbonised products is of strategic importance. Under the Clean Industrial Deal and further in the Industrial Accelerator Act (IAA), the European Commission had already given a structure to this, when describing *strategic sectors* (e.g. in Annex I of the IAA).

**The EU should therefore consider to:**

- **Keep the ambition of the linear reduction factor, adjusted to the 2040 climate target and the realistic pace of decarbonisation;**
- **Retain the ambition of the free allowance phase-out, driven by and dependent on a robust and effective CBAM;**
- **Design a system of convertible allowances linked to verifiable specific investments and offtake contracts;**
- **Through the design of the convertible allowance instrument, address the OPEX gap between conventional and decarbonised solutions, underscoring the support for *Clean and European*.**

## 4. Aviation

The EU ETS has been instrumental in introducing a carbon price in the aviation sector; however, this has not been sufficient to build a supply chain for eSAF or synthetic fuels, which are needed to decarbonise the sector. The upcoming aeronautics industrial strategy is foreseen to identify EU ETS revenues as a key funding lever to mobilise investment in the sector's sustainable transition. In the aviation sector, the re-channelling of ETS revenues needs to be made more effective. While over 40 eSAF large-scale projects are planned in the sector within the EU, none have reached final investment decision (FID) by Q1 2026. One of the fundamental challenges for the development of the SAF market is the complexity to match supply and demand due to high costs for airlines and a lack of investment security and long-term visibility for producers. To create a leading European SAF and eSAF industry and help support the aviation sector's energy transition, adequate financial support must be in place for the transport operators affected by the EU ETS for aviation.

Furthermore, aviation projects are facing a low success rate within the ETS Innovation Fund applications. The development costs both on the CAPEX and OPEX side are disproportionately high for SAF and eSAF producers compared to other decarbonisation projects due to complicated steps involved in SAF and eSAF production. The criteria for the Innovation Fund should be revised and adjusted to the needs of aviation fuel producers to ensure that aviation projects can successfully secure funding. The application process must be adapted to recognise that significant fleet-level GHG reduction occurs over long timelines. This is currently incompatible with the focus on short-term single-project evaluations.

In addition, the current market context requires targeted support for a limited number of industrial scale Fischer-Tropsch /Methanol-to-Jet plants that can deliver meaningful volumes (needed to comply with REFuelEU Aviation in the short to medium term) and enable a credible ramp up of the European SAF and eSAF market. Prioritising such flagship/strategic projects would ensure that Europe develops the production capacity needed to meet regulatory obligations, reduce reliance on imports, and anchor the early eSAF industry within the EU. This grants autonomy to European fuel suppliers and allows the EU to be in control of its own supply chain, ultimately strengthening energy resilience and security in Europe. Similarly, with the potential of SAF and eSAF being used for both civil and military purposes, a European SAF and eSAF market is a strategic asset amidst ongoing geopolitical uncertainty that results in increasing security of supply concerns. By producing fuels locally using renewable electricity, water, and captured CO<sub>2</sub>, militaries can break their reliance on volatile international oil markets<sup>1</sup>.

### 5.1 ETS SAF allowances

Under the current regulation, the EU has earmarked allowances – so-called SAF allowances – as per the 2025 Fuels Eligible for ETS scheme (FEETS) to incentivise airlines to use SAFs by partially closing the price gap with conventional kerosene.<sup>2</sup> 20 million allowances were set aside between 2024 and 2030. The mechanism should **be expanded temporally and in size** to further support the most advanced SAF. Expanding the scheme to 40 million allowances would align with the CO<sub>2</sub> saving potential resulting from compliance with the SAF mandate over the 2030-2040 period. In parallel, the European Commission should consider a 10-year window of visibility to strengthen trust in the mechanism's viability and bolster long-term offtake agreements and revenue certainty.

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<sup>1</sup> The Hague Centre for Strategic Studies (HCSS), [European Military Fuel Readiness: The Role of Alternative Fuels in Military Logistics](#), November 2025

<sup>2</sup> Commission Delegated Regulation (EU) 2025/723 laying down detailed rules for the yearly calculation of price differences between eligible aviation fuels and fossil kerosene and for the EU ETS allocation of allowances for the use of eligible aviation fuels ([link](#)), Article 3c(6)

SAF allowances access could be **linked to offtake agreements or other legally binding contracts (Union Database documentation, investment decisions)**. No large-scale eSAF project in the EU has reached FID by 2026. Connecting SAF allowances to offtake agreements will further encourage these crucial agreements, thereby supporting eSAF demand whilst lowering costs of aircraft operators. In the long-term, this helps build confidence in the SAF market and supports compliance to the ReFuelEU Aviation targets.

Moreover, the European Commission should provide an assessment whether the volume of ETS SAF allowances is sufficient, and whether they are appropriate to bridge the price gap between SAF and conventional aviation fuel (fossil Jet A-1). This assessment should also investigate the suitability of the current SAF allowance regime regarding disbursement timelines; the current annual *ex-post* basis does not sufficiently incentivise investment in e-SAF offtake. Such an assessment will provide long-term clarity to both SAF producers and offtakers. Similarly, with the current cut-off date for SAF allowances of 31 December 2030, producers and offtakers should be given clarity on the extension – in terms of volume and duration – of the SAF allowances to provide them with long-term investment certainty.

**The EU should therefore consider to:**

- **Prolong the mechanism in time over a minimum 10-year period (2030-2040);**
- **Expand the volume of SAF allowances in line with the CO2 saved as per the EU SAF mandate;**
- **Focus the support where the price gap with conventional jet fuel is the highest (eSAF);**
- **Link access to allowances to offtake agreements or other legally binding contracts.**

## 5. Maritime

Since 2024, the maritime sector has been incorporated into the EU Emissions Trading System – one of the most significant expansions of the carbon market in its twenty-year history. Shipping accounts for 3-4% of all EU greenhouse gas emissions and is one of the largest new sources of ETS revenue in Europe.

Although the inclusion of the sector is an important development, introducing a carbon price alone is not sufficient to drive investments into new ships and low-carbon fuels bunkering infrastructure. Capping maritime emissions will not in itself build the clean fuels economy that the shipping and maritime sectors need to decarbonise. The cost gap between conventional fuels and low carbon alternatives – specifically e-fuels like e-ammonia, e-methanol, and hydrogen – remains vast. Without targeted support, the carbon price signal will not be strong enough to drive the investment decisions required at the pace and scale envisioned by the European Commission and needed to deliver on the decarbonisation of the wider EU economy. It is essential to note that the carbon leakage potential from ETS maritime evasive practices needs to be eliminated. As has been done by the European Commission under the CBAM scheme, avoidance practices, such as calling near-EU instead of EU ports or calling such near-EU ports prior or right after EU ports and changing shipping patterns to avoid ETS maritime duties, can be highlighted and regulated against.<sup>3</sup> Tackling this issue underscores all the functioning of the ETS maritime scheme.

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<sup>3</sup> Although total port calls and overall traded volumes have remained relatively stable, the sequence in which ports are visited has changed considerably since the introduction of ETS. A visible trend is the rapid emergence of UK ports as first ports of call for Europe-bound services, effectively positioning the UK separately from the continental system and allowing carriers to circumvent a substantial part of ETS obligations. The economic incentives behind such strategic adjustments are considerable.

## 4.1 Earmarking ETS Maritime revenues to the European maritime sector

The case for earmarking maritime ETS revenues has already been made by the European Commission. The EU Industrial Maritime Strategy, launched in March 2026, explicitly identifies national EU ETS revenues as one of the key funding levers to mobilise investment in fleet decarbonisation and clean fuels. The Sustainable Transport Investment Plan (STIP) similarly identifies the ETS as the primary driver for maritime decarbonisation, calling on Member States to allocate ETS revenue for sustainable and low-carbon maritime fuel production.

€9 billion is expected to be generated annually from the full inclusion of shipping in the ETS. Whereas these funds should be used to bridge the price gap with clean fuels, which remain on average four times more expensive than conventional alternatives, under the current framework most of these revenues flow to Member State budgets without sectoral ring-fencing. This means revenues generated by shipping companies may fund entirely unrelated climate priorities — with limited funds returned to the ports, bunkering networks, and clean fuel producers. The Commission has opened the door; what is now needed are binding provisions to ensure that what the maritime sector pays into the ETS is invested back into its own transition, helping the European maritime fuel industry.

## 4.2 Maritime e-fuels ETS allowances

The Commission itself has already signalled the direction of travel: the STIP assesses the feasibility of a support mechanism for maritime fuels, similarly to the one in the aviation sector. This precedent is instructive as well as successful, with the EU having set aside 20 million emissions allowances in the aviation sector — valued at roughly €1.5 billion.

Modelled after the FEETS, a Maritime FEETS (M-FEETS) could take the same route to bridge this price differential by allocating EU Allowances (EUAs) equal to the fuel cost gap, net of the ETS carbon cost avoided. Specific design elements of the mechanism need to account for the different reality of the maritime sector, including reflecting on multiple fuels, ship pooling, and the obligation shifting from fuels suppliers to ship operators (under the FuelEU Maritime). Such a mechanism can provide long-term visibility solving the issue of lagging offtake agreements in the maritime sector. As complex as the modelling could be, the impacts will be significant and the scheme could be a much-needed tool in achieving RFNBO obligations, kickstarting a business case for clean maritime fuels in Europe, and decarbonising Europe's shipping sector. It would also reduce carbon leakage in a sector susceptible to it by enabling and incentivising ships to refuel in Europe.

**The EU should therefore consider to:**

- **Create a system of SMF allowances narrowing the price difference between SMF and conventional bunker fuel;**
- **Set aside 40 million allowances of ETS SMF allowances in line with the CO<sub>2</sub> saving potential of a full-uptake scenario of FEUM in the period 2030-2040;**
- **Define eligibility criteria for renewable and low-carbon maritime fuels, and differentiate support level by fuel class, depending on the cost gap with the conventional bunker fuels (RFNBO, recycled carbon fuels RCF, advanced sustainable biofuels, etc.);**
- **Recognise in the design of the scheme the diversity and complexity (multiple vessel/fuel types) of the maritime fuel markets.**

## 6. EU-level use of ETS revenues

Between 2013-2025, auctions under the EU ETS have generated over €258 billion in revenue. A significant share—€59.5 billion (23%)—has been allocated to EU-level funding instruments. These resources play a critical role in financing projects that advance the EU’s decarbonisation objectives. For example, the Innovation Fund, with a budget of €13.4 billion, is one of the world’s largest funding programmes for the demonstration of innovative low-carbon technologies.

Looking ahead to the next Multiannual Financial Framework 2028-34, the European Commission has proposed a future EU Industrial Decarbonisation Bank (IDB) with a budget of €100 billion, with some of this funding to be channelled through the Innovation Fund and additional revenue resulting from parts of the ETS. Thus, the Innovation Fund and the planned Industrial Decarbonisation Bank will be key instruments for supporting hydrogen projects. **Ensuring a stable and predictable allocation of ETS revenues towards these EU-level instruments, with innovation and resilience as guiding principles, including through double-sided auction schemes or Contract for Difference schemes, while allowing cumulation, is crucial for the attractiveness of EU-level schemes.**

The remaining revenues from the EU ETS, allocated to Member States, need to play a stronger role in supporting climate action and in the transformation of energy systems. Member States should explicitly integrate the use of ETS funds into their National Energy and Climate Plans, aligning investment priorities with the EU’s decarbonisation, competitiveness, and resilience objectives, while prioritising high-quality projects— including those awarded EU Competitiveness seal. To reduce the administrative burden associated with applying for multiple funding programmes, Member States should use EU ETS revenues, where appropriate, as replacement funding to EU instruments where projects applied but did not secure EU-level funding.

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