

Cefic perspective on EU ETS carbon-cost exposure in the chemical industry

Recent commentary¹ on EU ETS free allocation has suggested that the chemical industry effectively pays almost no carbon price, pointing to an estimate that free allocation covered around 98% of emissions between 2013 and 2024.

This conclusion is drawn based on an inaccurate definition of the chemical sector. Such a definition uses a narrow sector boundary that excludes combustion and utility installations supplying heat and steam to chemical production. As a result, a significant share of chemical-sector emissions is omitted from the analysis.

When these installations are included, verified emissions exceed free allocation in every year analysed. Overall, 29.3% of verified emissions were not covered by free allocation over the period 2013–2024.

This broader view provides a more complete basis for assessing the industry's carbon-cost exposure under the EU ETS.

The importance of the sector boundary

The EU ETS free-allocation methodology is designed to avoid distortions arising from different industrial heat-supply arrangements. Under the Free Allocation Regulation, allocation linked to measurable heat is attributed according to heat consumption rather than the location where emissions occur.

Consequently, emissions from Combined Heat and Power(CHP) plants or steam generators may be reported under one ETS installation while the associated free allocation is attributed to **another installation that consumes the heat**. This means that allocation and emissions are not always expected to appear under the same ETS permit.²

For large integrated chemical sites, production units and energy-supply units may be reported under different ETS permits, even when they operate as part of the same industrial system. Any

¹ [Bad chemistry: How the chemical sector escapes EU carbon pricing - Carbon Market Watch](#)

² For allocation rules referring to measurable heat transferred between ETS installations please refer to Art. 2(3)(a), Art.15(4) of the Commission Delegated Regulation (EU) 2019/331 as amended by [Commission Delegated Regulation \(EU\) 2024/873](#) and [Guidances no.6](#) and [no.2](#).

assessment of carbon-cost exposure therefore requires a system boundary that captures both chemical production units and the utility installations that supply them.

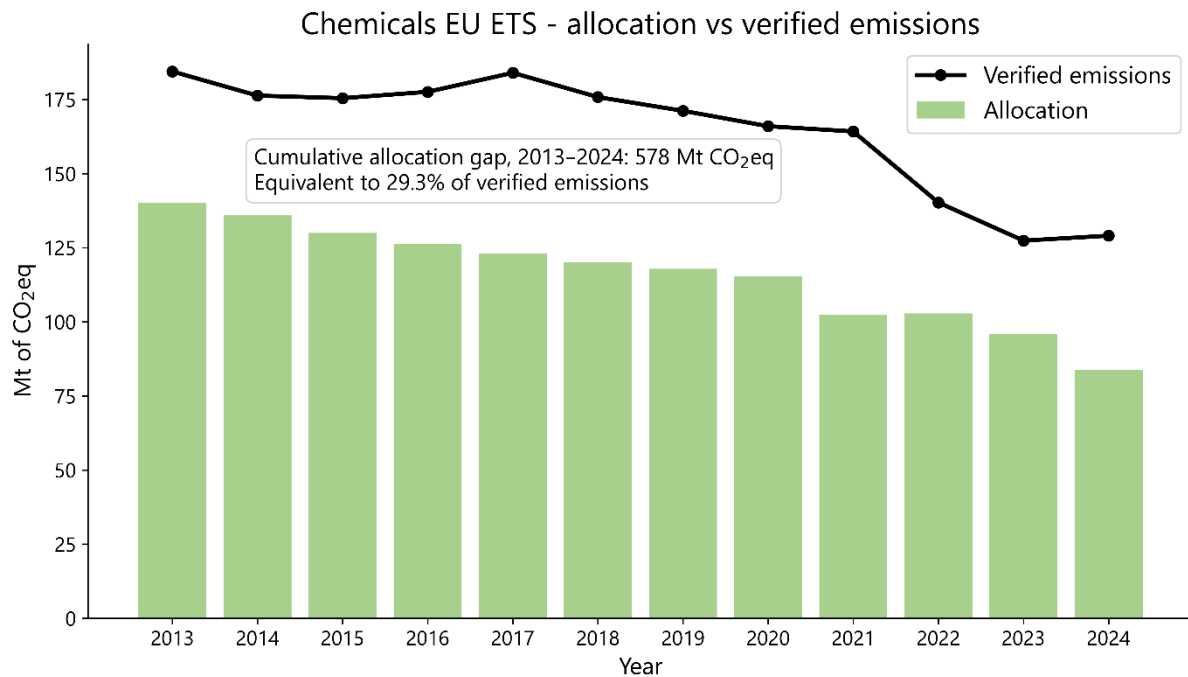
Some recent assessments rely on an EUETS.INFO-based approach, which does not fully capture all combustion and utility installations directly linked to chemical production. As a result, more than 250 combustion and utility installations are left outside the sector boundary. Many of these additional installations are classified under NACE 35, reflecting steam and heat supply. These installations are not peripheral to the chemical industry, as they provide essential heat and steam to chemical production sites.

Independent data sources point to the same conclusion. The European Environment Agency (EEA) GHG inventory confirms that combustion emissions from chemicals represented almost 50% of total chemical-sector emissions on average between 2013 and 2024. This is in line with Cefic figures and materially higher than the calculated combustion share of only around one-third of the sector's emissions in narrower assessments.

This supports the conclusion that a narrow boundary does not fully capture the combustion and utility systems linked to chemical production.

Emissions vs allocation in chemical industry

Cefic develops and constantly maintains a list of ETS combustion installations that serve the chemical industry. The database is reviewed and updated regularly to ensure that the sector is analysed accurately. Using this broader chemicals dataset that includes combustion and utility installations linked to chemical production, verified emissions exceed free allocation in every year analysed between 2013 and 2024, with 29.3% of total verified emissions from chemicals not covered by free allocation over the analysed period. These findings show that the chemical sector's exposure to carbon costs cannot be assessed accurately without taking the full industrial system into account.



Chemical ETS installations filtered based on: Cefic custom list. Data extracted from Union Registry website on 23/06/2026

Conclusion

The chemical industry is a highly integrated and energy-intensive sector, where production units, utility systems, CHP plants and heat networks are often reported under different ETS installations despite operating as part of the same industrial system. As recognised in the EU ETS free-allocation framework, free allocation and emissions are not always recorded under the same ETS permit. Any assessment of carbon-cost exposure therefore requires a system boundary that captures both chemical production units and the utility installations that supply them.

The analysis presented here highlights the importance of sector boundaries when assessing the relationship between verified emissions and free allocation under the EU ETS. The inclusion or exclusion of combustion and utility installations linked to chemical production can materially affect the outcome of such assessments. When these installations are included, verified emissions exceed free allocation by 29.3% over the period 2013–2024. These findings demonstrate that evaluating the industry's carbon-cost exposure requires taking into account the full range of ETS installations that reflect the complexity of chemical production.