



A New Hope

RECOMMENDATIONS FOR THE
EU EMISSIONS TRADING SYSTEM REVIEW

Policy briefing, April 2021



Table of Contents

Executive summary	3
Introduction	3
The challenge - industrial emissions are stagnating	4
What can the EU ETS do about it?	5
1. Speed up emission reductions	5
<i>Increase the “Linear Reduction Factor” (LRF) and introduce a one-off reduction of the cap</i>	
2. Avoid another price crash	6
<i>Strengthen the Market Stability Reserve (MSR)</i>	
3. Make polluters pay	7
<i>Mandate full auctioning of emission allowances</i>	
<i>Implement a CBAM as alternative to current carbon leakage measures</i>	
4. Invest smartly in future-proof solutions	8
<i>Demand that all auctioning revenues are used towards climate action, just transition and international climate finance</i>	
<i>Increase funding for zero-carbon industrial innovation</i>	8
Conclusions	9
References	10

Executive summary

With total greenhouse gas emissions of around 700 million tonnes per year, resource and energy intensive industry is the third largest climate polluter in Europe. The cement, chemical and steel sectors alone are responsible for almost 60% of these emissions.

Industrial emissions are regulated under the EU Emission Trading System (ETS), but the numerous exemptions and free pollution permits included in the legislation have failed to make the ETS an effective tool to drive down emissions: carbon pollution from heavy industry has hardly decreased since 2012. It is also not expected to go down until 2030.

As part of the EU Green Deal implementation, the scheme will be revised starting in the summer of 2021. This revision is a crucial opportunity to ensure that the industrial sectors covered by it reduce their emissions in line with the EU climate goals and the Paris Agreement objective of limiting global temperature rise to 1.5 degrees Celsius.

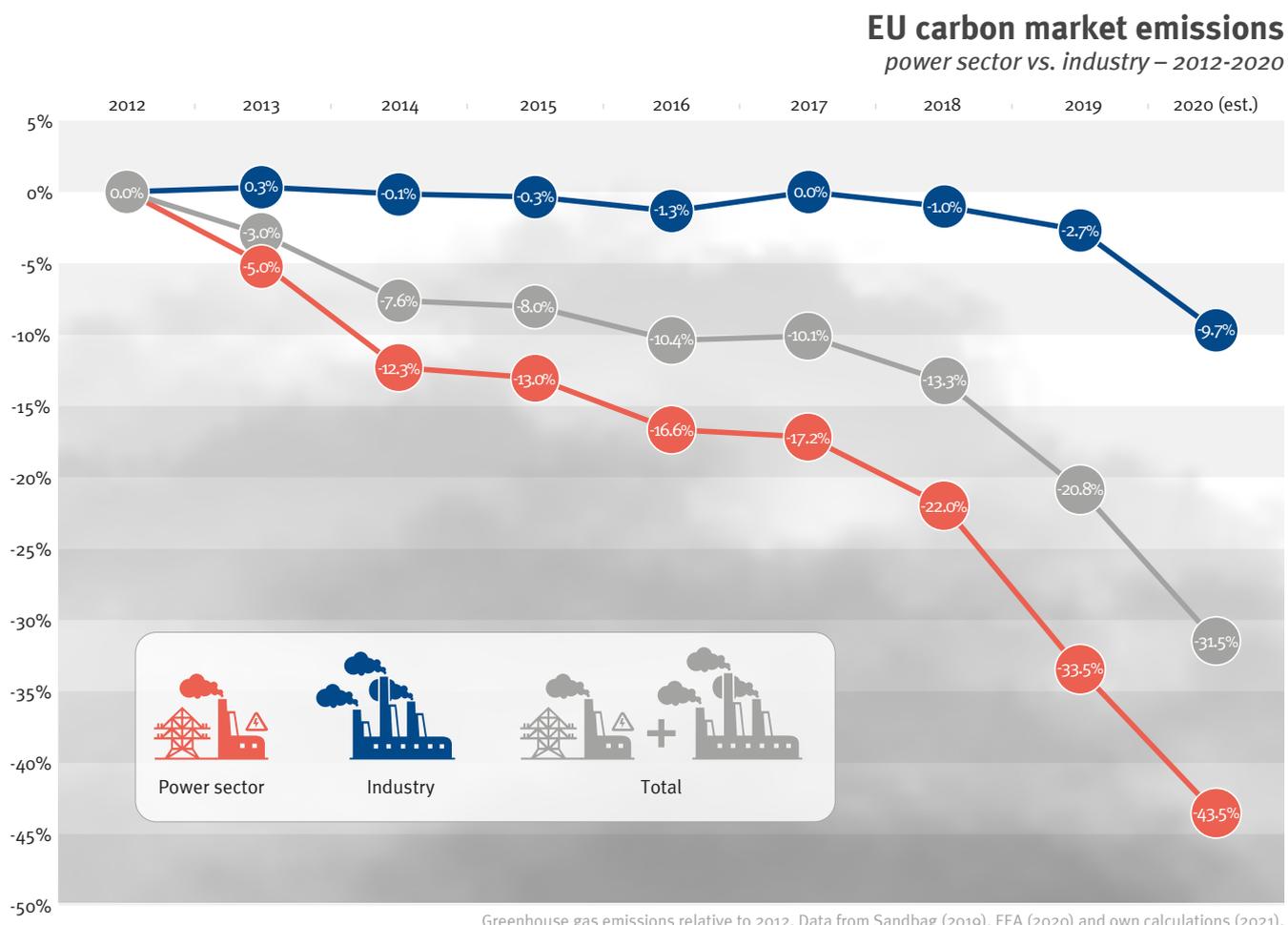
To this end, decision makers should:

- **Increase the rate at which emissions decrease (the “Linear Reduction Factor”, LRF) to 5.8% as of 2023 or to 3.1% if combined with a one-off reduction of the cap by 450 million allowances** to drive faster emission reductions
- **Increase the intake rate of the Market Stability Reserve (MSR) to 36% from 2024 onwards, adopt declining thresholds and an automatic cancellation of allowances held in the reserve for more than three years** to effectively handle the market surplus
- **End free allocation of allowances for energy-intensive industries and the aviation sector** to incentivise climate action in these sectors
- **Earmark 100% of auctioning revenues in further climate action, industrial innovation, just transition and international climate finance**

Introduction

Greenhouse gas (GHG) emissions from resource and energy-intensive industries currently represent 19% of total European GHG emissions, and they are not going down. To set Europe on the right path to achieving carbon neutrality by 2040, in line with the Paris Agreement and Europe’s historic responsibilities, industry needs to reduce its emissions drastically. This briefing provides an overview of the elements that need to be reviewed and strengthened in the upcoming EU ETS revision to provide the right incentives for industry to decarbonise in line with the goals of the European Green Deal.

The challenge - industrial emissions are stagnating



The European Union Emissions Trading System (EU ETS) has been in operation since 2005 and covers about 45% of the EU's total greenhouse gas emissions, originating from approximately 11,000 stationary installations and intra-European flights. These emissions come mostly from the power sector (56% - coal, lignite, gas...) and industrial sectors (40% - steel, chemicals, cement,...). The remaining 4% of the greenhouse gas emissions originates from intra-European flights.

The EU ETS was designed to reduce greenhouse gas emissions by 21 % between 2005 and 2020. By 2017, the EU ETS emissions had already decreased by 26 %. This decrease was mostly driven by the power sector and was largely the result of fuel switches in the production of electricity and heat (i.e. less hard coal and lignite, more renewable energy sources).

On the contrary, carbon emissions from the industrial sector did not decrease at all between 2012 and 2018. The latest report from the European Commission shows a slight decrease in emissions in 2019 but this is really minor and in the range of 2.5 - 3%. 2020 estimates foresee a steeper reduction (9.7% compared to 2012) but this is mainly due to the economic downturn caused by the Covid-19 pandemic so without further action this effect is likely to be short-lived.

In practice, this means that industrial emissions are not permanently going down and could rebound in the next few years. At the current pace, resource and energy-intensive industries are expected to reach climate neutrality sometime in 2060.

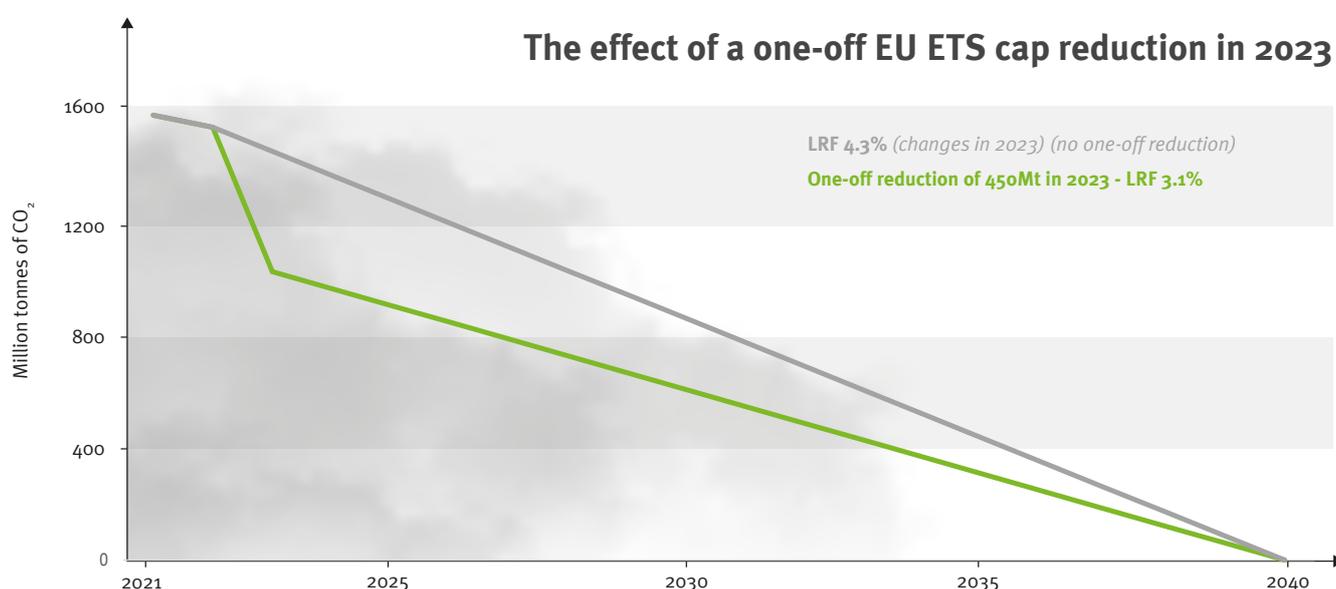
What can the EU ETS do about it?

The upcoming revision of the EU Emissions Trading System (EU ETS) is a crucial opportunity to strengthen the Directive and ensure that it contributes to the Paris Agreement 1.5°C goal. To do its fair share of global climate action, the EU needs to cut emissions by at least -65% by 2030, and be climate-neutral by 2040. The investments required to achieve these goals have to be considered against the tremendous costs of inaction.

Carbon Market Watch proposes the following amendments to the EU ETS Directive:

1. Speed up emission reductions

Increase the “Linear Reduction Factor” (LRF) and introduce a one-off reduction of the cap



The EU ETS Directive covers around 40% of the EU’s greenhouse gas emissions and thus its revision needs to ensure that it fully contributes to the overall climate goals. Recent research¹ shows that a 65% climate target by 2030 would require around 70% emissions reductions in ETS sectors (compared to 2005).

It is therefore crucial that the ETS revision focuses on an increase of the Linear Reduction Factor (LRF) in combination with a one-off reduction of the cap, in order to reach zero emissions by 2040.

The LRF determines the pace at which the total number of available allowances (the cap) reduces every year. In the ETS phase 3 (2013 - 2020) the LRF was 1.74%, and increased to 2.2% as of this year. However, this reduction would lead to the full decarbonization of the EU’s power and industry sectors only in 2058. For the cap to reach zero by 2040, the pace at which emission allowances decline should drastically pick up.

The overall cap on carbon emissions has been significantly higher than the emissions of installations covered by the ETS since 2009. In 2019, the gap between the cap and the actual emissions was estimated to be around 250 million allowances.² This difference is expected to continue and risks aggravating as a consequence of the Covid-19 pandemic. Without any intervention to align the cap with the actual overall emissions, a large surplus of allowances is likely going to depress the carbon price signal and undermine the impact of the system. In order to ensure that the cap better reflects real emission levels, it should be readjusted through a one-off reduction of 450 million allowances as soon as possible.

The ETS revision must implement a one-off reduction of the cap and a steeper LRF by 2023. In order for the ETS cap to reach -70% by 2030, the LFR will have to be increased to 5.8% as of 2023. If the cap is decreased by a one-off reduction of 450 million allowances in 2023, the LFR will have to be increased to 3.1% as of 2023.³ It is therefore important both measures are combined in order to have the desired impact. A later implementation of these improvements will require a greater effort in a shorter amount of time.

Recommended amendments to EU ETS Directive 2003/87/EC

Article 9, paragraph 3(new) - one-off reduction of the cap and LRF increase for the ETS cap to reach -70% by 2030:

The Union-wide quantity of allowances issued each year starting in 2023 shall decrease by a one-off reduction of 450 million. Starting in 2023, the linear factor shall be 3.1%.

2. Avoid another price crash

Strengthen the Market Stability Reserve (MSR)

The Market Stability Reserve (MSR) is a mechanism to control the number of allowances in circulation on the ETS market. Each year, if the total number of allowances in circulation (TNAC) is greater than 833 million, 24% of the TNAC will be placed in the reserve. From 2024 onwards, this share is set to decrease to 12%.

If, on the contrary, TNAC is lower than 400 million, then 100 million EUAs will be released from the MSR. Finally, each year, if there are more allowances in the MSR than what has been auctioned in the previous year, the difference will be invalidated from the MSR.

Established in 2018, the MSR has proven effective in supporting the ETS carbon price signal in recent years. However, the MSR was designed to only handle oversupply accumulated in the past. It is not fit to deal with current or future surplus (linked to e.g. the Covid-19, economic downturn, planned coal plant closures...). For example, based on existing coal phase-out plans, a 2.07 billion tCO_{2e} emission reduction between 2021 and 2030 can be expected. This means that a significant amount of allowances will add to the current surplus of allowances and negatively affect the carbon price signal.

The MSR will therefore need to be strengthened in the context of the ETS revision. The intake rate should be increased, rather than lowered, to 36% from 2024 onwards, declining thresholds should be adopted and an automatic cancellation for allowances held in the MSR for more than three to five years should be set.

Recommended amendments Decision (EU) 2015/1814 (concerning the establishment and operation of the market stability reserve)

Article 1 - paragraph 5:

Each year, a number of allowances equal to 36 % of the total number of allowances in circulation [...] shall be deducted from the volume of allowances to be auctioned by the Member States

Article 1 - paragraph 5b(new):

From 2023 allowances held in the reserve for a duration longer than 5 years shall no longer be valid.

3. Make polluters pay

Mandate full auctioning of emission allowances

Since 2008, over 200 billion euros⁴ worth of free emission allowances have been handed out to heavy industry and the aviation sector under the EU ETS. At the same time, emissions from industrial installations like steel, cement and chemicals continue to stagnate (less than 0.4% annual reduction since 2013) and those from aviation keep increasing (>4% annual increase since 2013). Despite auctioning being the default rule, more than 95%⁵ of industrial emissions, and about half of emissions from aviation, are currently covered by free emission allowances. In contrast, emissions from the power sector – where free allocation is very limited - dropped by 13% just in 2019.⁶

Polluting for free in times of a climate crisis is unacceptable and the EU ETS should immediately start auctioning all emission allowances. According to current rules, between 2021 and 2030, the EU industry will receive approximately 6.5 billion allowances for free - valued at almost 200 billion euros⁷ (with an average CO₂ price of 30EUR/t). This represents foregone auctioning revenues that could instead be recycled towards much needed climate action measures.

The European Court of Auditors⁸ has recently found that free allocation of allowances to industry and aviation could slow decarbonisation, and needs better targeting. Given that the European Commission accepted this recommendation, the upcoming impact assessment should include options leading to full auctioning for all sectors.

Recommended amendments to EU ETS Directive 2003/87/EC - Article 10b (transitional measures to support certain energy intensive industries in the event of carbon leakage) and Article 3d - Method of allocation of allowances for aviation through auctioning

Article 10b - paragraph 1:

Such sectors and subsectors shall be allocated allowances free of charge for the period until 2023 at 100 % of the quantity determined pursuant to Article 10a.

Article 10b - paragraph 4:

[...] free allocations to other sectors and subsectors shall decrease by equal amounts after 2021 so as to reach a level of no free allocation in 2023

Article 3d - paragraph 2a(new):

From 1 January 2023, 100 % of allowances shall be auctioned

Implement a CBAM as alternative to current carbon leakage measures

The European Commission is working on a proposal to introduce a Carbon Border Adjustment Mechanism (CBAM). Under this mechanism, a foreign industry that wants to import goods in the EU will have to pay a price for the carbon content of its products at the border. Details on how this measure will work in practice and to which sectors it is going to be applied are still being discussed. However, in its inception impact assessment of the measure, the Commission declares that: “the main objective of CBAM is to fight climate change by avoiding carbon leakage and [...] it would be an alternative to the measures that currently address the risk of carbon leakage in the EU’s Emissions Trading System (“EU ETS”)”. Therefore, all current measures to protect European industries against the risk of carbon leakage should be ended.

Abolishing free allocation would incentivize industrial decarbonization, raise auctioning revenues and limit windfall profits. It would not cause substantial carbon leakage risks.⁹

4. Invest smartly in future-proof solutions

Demand that all auctioning revenues are used towards climate action, just transition and international climate finance

The total revenues generated from the government auctions of emission allowances since 2012 exceed 57 billion euros. While EU Member States claim that they use a large part of the ETS auctioning revenues for climate action, the ETS Directive lacks harmonised obligations to ensure that this is the case. The law includes a non-binding provision stating that at least 50% of auctioning revenues “should” be used for climate and energy related purposes.

The absence of a firm rule on the use of revenues has led to a decrease in climate-related spending in almost all Member States in the last few years. According to a recent analysis conducted by WWF, the average EU climate spending went from accounting for around 90% of ETS revenues in 2016 to 67% in 2018.¹⁰

Reaching climate neutrality by 2040 will require more funding for climate action, not less.

The European Commission should propose earmarking 100% of revenues for climate action, to be invested in renewable and energy efficient technologies, clean industrial innovation, just transition and international climate finance.

Recommended amendments to EU ETS Directive 2003/87/EC Article 10 - auctioning of allowances

Article 10 - paragraph 3:

*Member States shall determine the use of revenues generated from the auctioning of allowances: 100 % of the revenues generated from the auctioning of allowances [...], or the equivalent in financial value of these revenues, shall be used to support **climate action, to invest in renewable and energy efficient technologies, clean industrial innovation, just transition and international climate finance.***

Increase funding for zero-carbon industrial innovation

Financial support and investments for industry to innovate and deploy zero-carbon breakthrough technologies is crucial to achieve climate neutrality as soon as possible. According to McKinsey,¹¹ reaching climate neutrality by 2050 would require 410 billion euros of investments in clean technologies and techniques for the industrial sector alone. Given the amount of funding required to make this happen, it is clear that the current public and private funding is insufficient. Public investments in R&D, innovation and clean energy have slowly increased over the past years but continue to represent only a small fraction of what is required.

The last EU ETS revision launched the Innovation Fund, successor of the NER300. The Fund covers renewable technologies, CCS and innovative low-carbon technologies and processes in energy-intensive industries, and allocates the derivatives of auctioning 450 million ETS allowances. At an ETS price of 25 EUR/t, this amounts to an average of 1 billion euros a year over the coming decade.

The Innovation Fund can play a crucial role in helping industry decarbonise but does not have enough resources, as shown by the first call for large-scale projects launched in July 2020. The demand and variety of low-carbon projects that applied was more than 20 times what the fund made available in the call.

On the other hand, it is estimated that in the current trading phase, governments will allocate 6.5 billion allowances to industry for free. At a carbon price of 30 EUR/t, this amounts to almost 200 billion euros. The total amount of public funding dedicated to innovation through the Innovation Fund is around 13 billion euros. This makes the value of free allowances more than 15 times the value of the ETS Innovation Fund.

The overall financial capabilities of the Innovation Fund should therefore be drastically increased. This would act as a major opportunity and support for industry in their efforts to decarbonise and is much more effective than the non-targeted allocation of free allowances. More auctioned revenues should be redirected to make the Fund bigger.

If ETS revenues were used to complement public investments in clean energy, funding would be more effective and Europe could accelerate its progress towards a carbon-neutral industry.

Recommended amendments to EU ETS Directive 2003/87/EC Article 10 - auctioning of allowances

Article 10a - paragraph 8:

2.8 billion¹² allowances from the quantity which could otherwise be allocated for free [...] shall be made available to support innovation[...] that contributes substantially to mitigating climate change, in line with the objective of achieving climate neutrality by 2050

Conclusions

Climate neutrality by 2040 will not happen unless energy-intensive industries play their part. Decarbonising heavy industry requires a comprehensive policy framework and large investments in clean technologies. An EU emissions trading law that provides a robust carbon price signal and creates incentives for emission reductions will be a crucial part of the package. Its upcoming revision is essential to kickstart the deep industrial decarbonisation needed to meet the Paris Agreement climate goals.

Many of the key ingredients of the revision were debated just a couple of years ago in the last revision of the directive. Today, more urgency and higher climate ambition are bringing new energy to negotiation tables. It is of utmost importance that the EU policymakers show full commitment to this vision. They must use this opportunity to make the ETS an instrument that provides the right incentives and rewards cleaner industries rather than more polluting ones. Therefore, they must propose and adopt a strong revision of the ETS directive that supports and incentivises the full decarbonisation of resource and energy-intensive industry sectors well before 2050.

Recommendations:

- **Increase the rate at which emissions decrease (the “Linear Reduction Factor”, LRF) to 5.8% as of 2023 or to 3.1% if combined with a one-off reduction of the cap by 450 million allowances** to drive faster emission reductions
- **Increase the intake rate of the Market Stability Reserve (MSR) to 36% from 2024 onwards, adopt declining thresholds and an automatic cancellation of allowances held in the reserve for more than three years** to effectively handle the market surplus
- **End free allocation of allowances for energy-intensive industries and the aviation sector** to incentivise climate action in these sectors
- **Use 100% of auctioning revenues in further climate action, industrial innovation, just transition and international climate finance.**

References

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- 10 [WWF \(2019\) "Strategic spending: how the ETS can fund fair climate action"](#)
- 11 [McKinsey, 2020 "How the European Union could achieve net-zero emissions at net-zero cost"](#)
- 12 [Estimate based on McKinsey \(see reference above\). The report estimates that the industrial sector alone will need 410bn EUR between now and 2050 for investments in clean technologies. Dividing this number equally over 30 years, the amount of funding needed for the period 2021-2030 would be about 136bn EUR. As per current rules, the Innovation Fund only funds 60% of the relevant costs of investments, so it would need to increase its budget to 82bn EUR. At a carbon price of 30EUR/t, this would result in 2.8bn allowances.](#)

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