

How to align the EU ETS with the Paris Agreement

The role of the EU ETS in increasing EU climate ambition: Assessment of policy options.
Verena Graichen, Jakob Graichen and Sean Healy (Öko-Institut e.V.), Sitra
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Glossary 1/2

EU ETS

The European Union Emissions Trading System. The aim of the system is to put a price on emissions causing climate change and to drive emissions down with a market-based mechanism. The system covers the 28 EU member states plus Iceland, Liechtenstein and Norway.

Emission allowance (EUA)

Entities within the EU ETS must annually submit emission allowances (EUA) according to their actual emissions. One EUA equals one metric tonne of CO₂ equivalent. It is possible to trade with the EUAs while banking for future use.

Emissions trading sector

The emissions trading sector comprises all sectors covered by the EU ETS, i.e. large energy and industrial facilities as well as flights within the European Economic Area (EEA).

Effort Sharing Regulation

The Effort Sharing Regulation is a policy framework covering sectors excluded from the EU ETS. Abatement efforts within these sectors are mainly regulated nationally. Sectors include transport, decentralised heating and cooling, agriculture, waste and industries outside the ETS.

LULUCF

The LULUCF regulation covers emissions from land use, land-use change and forestry. Not included in the EU ETS.

Glossary 2/2

Emissions cap

The emissions cap defines the amount of greenhouse gases entities covered by the EU ETS can emit. The cap is always set per a trading phase. The EU ETS is now in its third phase (2013-2020).

MSR, Market Stability Reserve

The Market Stability Reserve started operating in 2019 with the aim of reducing the structural oversupply accrued over the years. Excess supply of allowance in circulation weakens the ETS. Should the amount of allowances in circulation decrease significantly, allowances are released back to the market from the reserve.

LRF, Linear Reduction Factor

The EU ETS cap, i.e. the amount of allowances issued every year, declines annually by an amount defined by the linear reduction factor.

Carbon price floor

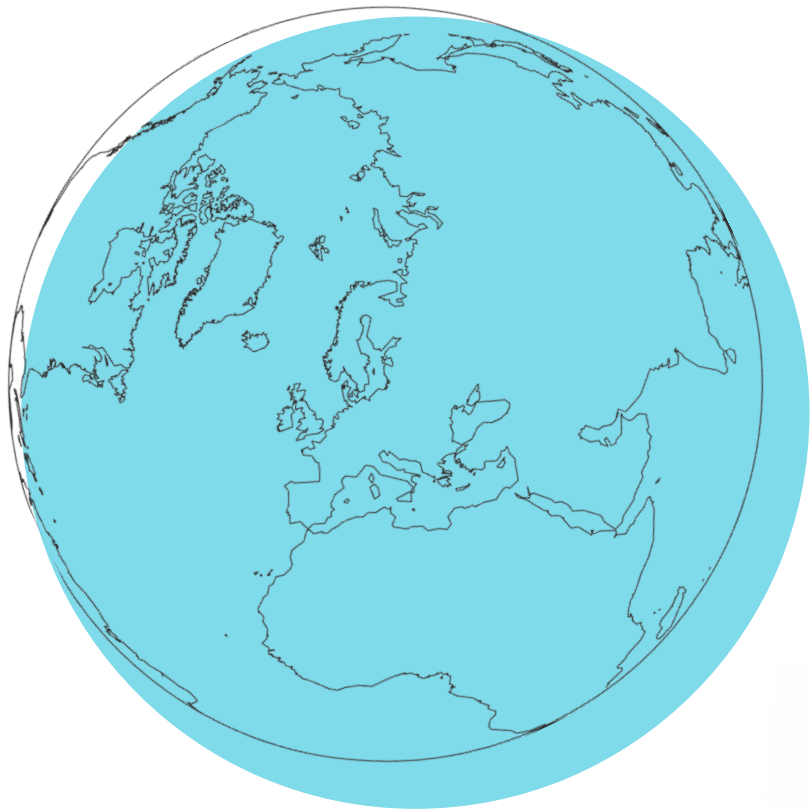
A carbon price floor sets a minimum price for an emission allowance. Should the floor price (e.g. €30) be higher than the market price (e.g. €25), companies would have to pay the difference (€5) in addition to the market price.

Auction reserve price

If an auction reserve price is in place, allowances at an auction are only sold if a certain price level is reached. The allowances that do not clear the minimum price can either be postponed to a later date or cancelled.

Resilience

Resilience means the system's ability to operate under external disruptions. For example, macroeconomic fluctuations and other unforeseen developments may reduce the demand for emission allowances, increase oversupply and lower the EUA price, thus limiting the incentive to cut emissions.



Global emissions need to be **HALVED** by 2030

...if we want to
limit warming to
below 1.5
degrees.



Halving global emissions also requires the EU to significantly increase its emission reduction target – the current target is insufficient

The EU-wide emission reduction target should be increased from the current 40% to a minimum of 55-60%

The Finnish Government supports raising the EU target to 55% by 2030.

A new EU-wide target will inevitably have an impact on the EU ETS considering the system's central role in the EU's climate policy

The EU is aiming for climate neutrality by 2050

It is essential to reform the EU ETS and we need to take action right now

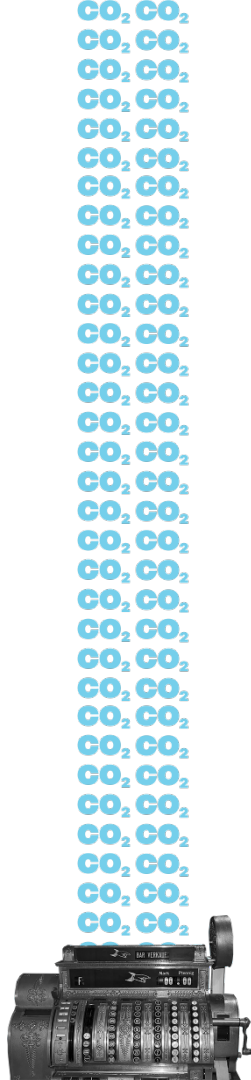
It is highly unlikely to achieve climate neutrality by 2050 unless the 2030 target is updated

President-elect Ursula von der Leyen and the European Parliament both support increasing the 2030 target to 55% below 1990

Finland will hold the presidency of the Council of the EU until the end of 2019

What is the EU ETS? (1/2)

- The EU ETS started operating in 2005. It is the biggest emissions trading system in the world.
 - The system covers the 28 EU member states plus Iceland, Liechtenstein and Norway.
- The aim of the system is to put a price on emissions causing climate change and to drive emissions down with a market-based mechanism.
- The system allows companies to choose whether they will cut emissions or pay a price for emitting in the form of emission allowances.
 - The allowances are auctioned (57%) and allocated for free (43%).
 - Banking of allowances for future use is allowed.
- The ETS covers large industrial and energy-producing facilities.
- The EU has set a cap for total emissions that declines annually according to the linear reduction factor (LRF).
 - Companies are allowed to trade allowances.



What is the EU ETS? (2/2)

- According to the EU 2030 target, the ETS sector needs to cut emissions by 43% from the 2005 level.
- Currently we are nearing the end of the third emissions trading period (2013-2020).
- Revisions for the fourth trading period (2021-2030).
 - The emissions cap will decline faster. The total amount of emissions allocated will decline by 2.2% annually compared to current 1.74%.
 - A market stability reserve (MSR) started operating in 2019, reducing the accumulated surplus of allowances in the market at times of oversupply and returning allowances back to the market when surplus reduces below a certain threshold.
 - Member states are allowed to unilaterally cancel allowances.



Policy design is the key

The design and regulation of the ETS defines how efficiently emissions are reduced.

The amount of allowances in circulation plays a pivotal role.



A surplus of allowances in circulation weakens the EUA price and **reduces the incentive to cut emissions.**

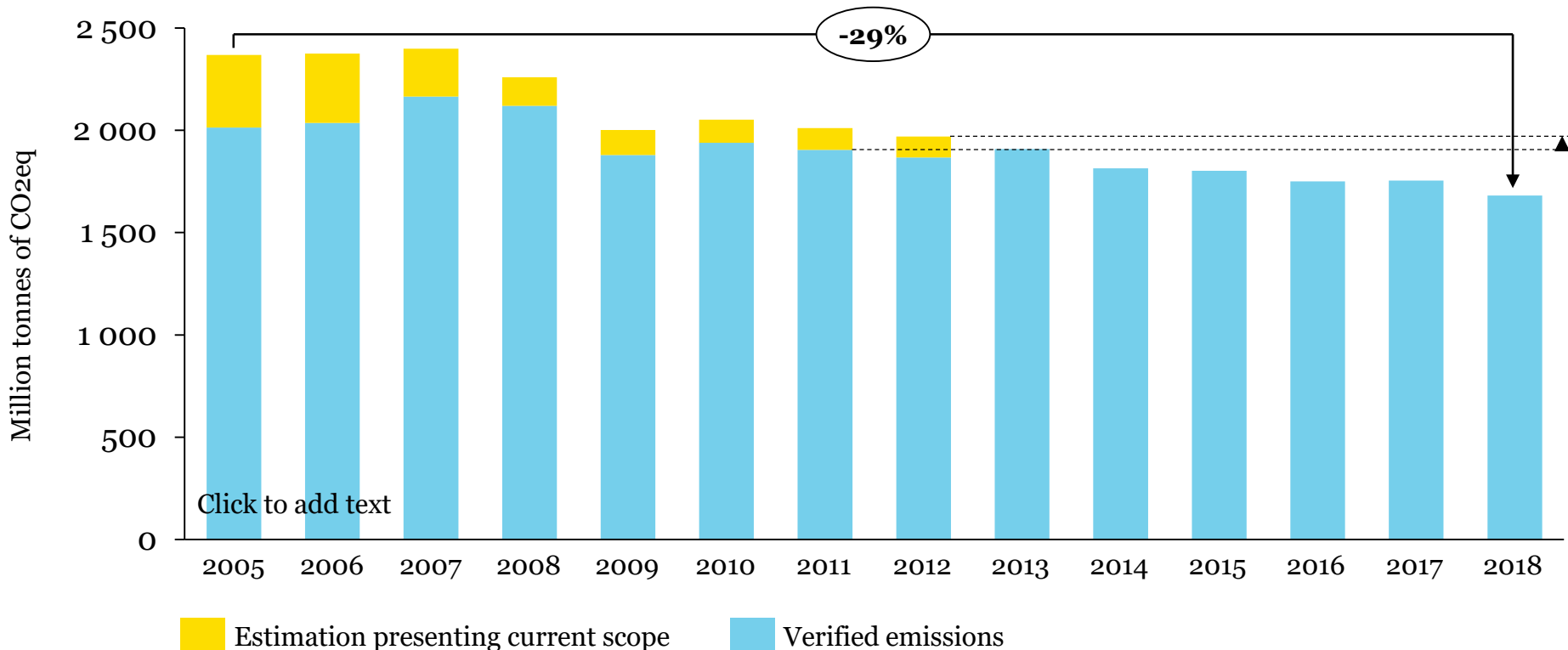


A low price alone is not a sign of a “malfunctioning ETS” – **the whole system needs to be assessed.**



Emissions under the ETS fell by 29% between 2005 and 2018

EU targets for renewable energy and energy efficiency have also played a role.





ETS highlights

- Pricing GHG emissions has proven to be an effective way to reduce them.
- Pricing ensures cost-efficiency, meaning reductions take place where they are most affordable.
- Emissions under the ETS fell by 29% between 2005 and 2018.
- The compliance rate has been high (companies have surrendered EUAs according to regulation).
- The EU has been a frontrunner in developing an ETS, inspiring other countries to follow suit.



ETS challenges

- The system has not achieved its full potential in accelerating emission reductions.
 - A structural surplus of allowances kept prices low for a long time, limiting the incentive to reduce emissions.
- The system requires adjustments, which will take time.
 - The current regulations are not stringent enough and threaten the achievement of the current targets.
 - As it stands, EU climate policy, including the ETS, is not aligned with the Paris Agreement.

The aim of the study

The study focuses solely on the ETS, excluding the ESR and LULUCF sectors.

1. To analyse the role of the ETS when the EU's climate ambition is aligned with the Paris Agreement.

2. To provide information about concrete measures for developing the ETS.

The study was conducted by the Oeko-Institut in Germany.



What was studied?

- 1** What would an appropriate emission reduction target for the ETS be if the EU-wide target for 2030 was increased from 40% to either 55 or 60%?
- 2** What policy measures will deliver the new target?
- 3** How will the measures differ in abatement potential and political feasibility?
- 4** Conclusions and recommendations.

What was discovered?

Emissions under the ETS need to be reduced by 61-65% from the 2005 level. To achieve this goal, a comprehensive policy package is needed, and it needs to be implemented as soon as possible.



An updated EU-wide 55-60% emission reduction target would require **reducing emissions by 61-65%** from the 2005 level under the ETS sector.

The following measures were studied to achieve this target:

- 1.** Strengthening the cap
- 2.** Enhancing the system's resilience to short term variations
- 3.** Applying a carbon price floor
- 4.** Extending the scope of the ETS
- 5.** Applying a tiered approach to free allocation of allowances

1

Strengthening the cap

Background

If we want to reduce emissions in the ETS sector faster, we must reduce the amount of emission allowances released into circulation. This would strengthen the emission cap.

How?

- **Rebasing the cap**
The amount of allowances released annually would be adjusted downwards significantly in one year, after which the annual reduction rate would continue as before.
- **Applying a higher linear reduction factor (LRF)** The linear reduction factor defines the amount the cap declines annually.
- **A combination** of these.

Abatement potential: high

2

Enhancing the resilience: MSR

Background

The Market Stability Reserve (MSR) is vital for enhancing the resilience of the system to external shocks, such as economic recessions, by tackling the surplus of allowances.

Evidence suggests that the surplus of emission allowances will start to build up again during the fourth trading period.

How?

- Altering the rules so that the MSR is also able to address the expected future surplus.
- Maintain the intake rate at a minimum of 24% from 2024 onwards (according to the current rules the intake rate decreases to 12% in 2024).
- Applying the linear reduction factor (LRF) to the MSR thresholds (inflow and outflow). This ensures that the MSR is able to address the surplus with a declining cap and emissions.

Emission reduction potential: medium-high

2

Enhancing the resilience: unilateral cancellation

Background

After a reform to the ETS directive, member states have the right to unilaterally cancel allowances. For example, if a member state decides to phase out coal power plants, the demand for EUAs decreases. The state then has the option to cancel the redundant allowances to avoid increasing surplus in the market.

How?

- Member states have the right to withhold from auctioning allowances because of national abatement measures in the electricity sector (e.g. coal phase-out).
- Does not require EU-wide regulation—can be implemented nationally.

Emissions reduction potential: high

Enhancing MSR parameters

	Current rules	Enhanced MSR (24% intake rate)	Enhanced MSR (36% intake rate)
Intake rate as % of allowances in circulation	12% starting 2024 (24% until 2023)	24%	36% starting 2024 (24% until 2023)
Upper threshold defining whether there is inflow to the MSR	833 million EUAs constantly	Declining threshold to 656 million EUA in 2030 by applying the LRF of 2.2% starting in 2021	
Lower threshold defining whether there is outflow from the MSR	400 million EUAs constantly	Declining threshold to 312 million EUA in 2030 by applying the LRF of 2.2% starting in 2021	
Amount of allowances released from the MSR in the case of outflow	100 million EUAs constantly	Declining amount to 78 million EUA in 2030 by applying the LRF of 2.2% starting in 2021	

3

Carbon price floor

Background

The ETS can be enhanced both by reducing the amount of allowances in circulation and increasing their price. A price floor for carbon improves the competitiveness of clean technology and lowers the risk in clean investments.

How?

- A carbon price floor can be established nationally – no EU-wide regulation needed.
- An EU-wide minimum price for carbon (EU-wide regulation needed) can be implemented either through a surrender charge (i.e. price floor) or through an auction reserve price. If an auction reserve price is in place, EUAs at an auction are only sold if a certain price level is reached.

Emission reduction potential: medium-high

4

Extension to the scope of the ETS

Background

There is an ongoing discussion about whether additional sectors should be included in the ETS, e.g. building-specific heating and cooling, land transport and maritime transport. It is essential to evaluate what factors are key to delivering abatement in these sectors and what the emission reduction potential would be under the ETS.

How?

- An obligation to surrender EUAs could be attributed upstream to the transport or heating fuel providers (or downstream to consumers) to cover the emissions.
- The end consumer would carry the costs.

Emissions reduction potential: low

5

Altering the rules for free allocation

Background

Approximately 43% of the allowances are allocated free for installation, which are at risk of carbon leakage. Carbon leakage means that environment and climate regulation and the associated costs could incentivise businesses to transfer production to countries with laxer regulation.

How?

- The rules could be altered in such a way that installations exposed to great carbon leakage risk could receive a larger share of the free allocation and installations with smaller risk would receive fewer allowances for free.

Emissions reduction potential: low

**Measures differ in their abatement potential
and political feasibility**

Political feasibility captures the relative “ease” of the associated legislative process

The political feasibility was assessed using the following questions:

- 1 Has the legislation previously been adopted?
- 2 Are there plans currently in place to amend the existing legislation?
- 3 What is the decision procedure for amending the legislation?
- 4 Is the policy option targeted at certain sectors (auction vs free allocation)?

In addition, all reforms need *political will* to be implemented.

The measures differ in their efficiency

		Abatement potential	Political feasibility	Timing of the impact
Strengthening the cap	Higher LRF	High	Medium	Medium- and long-term
	Rebasing	High	Medium	Medium-term
	Rebasing and higher LRF	High	Medium	Medium- and long-term
Enhancing resilience	Enhanced MSR (24% intake rate)	Medium	High	Short-term
	Enhanced MSR (36% intake rate)	High	High	Short-term
	Unilateral cancellation	High	High	Short- and medium-term
Carbon price floor	Surrender charge on electricity by group of countries/Nordic surrender charge on all ETS sectors	Medium	High	Medium-term
	Surrender charge on electricity EU-wide	Medium	Medium	Long-term
	Auction reserve price	High	Low	Long-term
Other	Extension of the scope to cover maritime transport	Low	Medium	Long-term
	Extension of the scope to cover road transport/decentralised heating	Low	Low	Long-term
	Tiered approach to free allocation	Low	Low	Long-term

Psst! You'll find more detailed information from page 53 in the report

**None of the
measures alone
will deliver the
change required.
We need a
comprehensive
policy package.**

1

Strengthening the cap aligned with the enhanced targets.

This is done by rebasing the cap and increasing the LRF.

2

Enhancing the resilience through the MSR.

3

A group of countries taking the lead by implementing a carbon price floor and cancelling the maximum amount of allowances under the unilateral cancellation.



What next?

1 Addressing the climate crisis requires the EU to increase its emission reduction target for 2030 to at least 55-60% compared to the 1990 level.

2 The reform of the EU ETS should start immediately.

3 In addition, EU member states should deploy measures that only require national legislation, to strengthen the EU ETS.

4 The ETS reform should be based on the understanding that any single measure is insufficient to deliver the change required. The suggested policy package will suffice.

Any questions?

I bet!



Please find the materials here

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Please contact us!

Outi Haanperä, Leading Specialist, Sitra
Outi.haanpera@sitra.fi, tel. +358 29 461 8470
or ilmastoratkaisut@sitra.fi

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