REPORT JUST TRANSITION

Fair and ambitious modernisation of Poland

How to spend billions from ETS2 effectively?

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Warsaw 2026

RE:FORM

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Publication date
March 2026

Recommended citation
Madej, D., Stefańczyk, A., Śniegocki, A. and Wojtyło, M. (2026), *Fair and ambitious modernisation of Poland. How to spend billions from ETS2 effectively?*, Warsaw, Poland: Reform Institute.

Cover photo source: Ashi Sae Yang/iStock

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The Reform Institute is an independent think tank dedicated to the continuous improvement of public policy in Poland, Europe and globally. One of the Institute's key areas of activity is supporting the energy transition and climate protection.

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Summary

Basic principles of ETS2

- ETS2 is the EU's CO_2 emissions trading scheme covering emissions from the combustion of fossil fuels in the road transport sector, building heating, and small industrial and energy installations. The obligation to purchase allowances rests with entities placing fuels on the market, i.e. fuel companies or coal sellers. The additional cost resulting from the purchase of allowances will be passed on to end users – citizens and businesses – through fuel prices.
- The system creates additional price incentives to reduce fossil fuel consumption and encourage investment in zero-emission technologies in sectors where the European Union's progress in the energy and climate transition has so far been too slow.
- ETS2 provides Member State governments with additional funds to support investment and to protect those most vulnerable to rising fossil fuel prices. These funds include both the Social Climate Fund and revenue from the direct sale of allowances by national governments.

Delay in the ETS2 launch and price-stabilising measures

- The launch of the system was initially planned for early 2027, but at the end of 2025 the Council of the EU and the European Parliament decided to postpone the start of ETS2 until 2028. At the same time, in response to Member States' expectations, the European Commission announced greater use of the Market Stability Reserve (MSR) to increase the supply of allowances and stabilise their prices.
- The changes announced at the end of 2025 have led to a significant shift in expectations regarding the system's first few years of functioning: whereas prices of up to 80 EUR/tCO_2 as early as 2027 and a doubling of these prices by the mid-2030s, were often expected - some of the current forecasts point to around 50 EUR/tCO_2 in 2028 and the 80 EUR/tCO_2 threshold being exceeded only closer to 2035.

Distribution of ETS2 costs in Poland

- Across the Polish economy, road transport is the key source of emissions in the ETS2 sectors and will therefore bear the heaviest burden following the introduction of the new system. This imbalance will deepen over the next dozen years alongside a systematic decline in emissions from the buildings sector because of phasing out coal from heating Polish homes. Road trans-

port's share of ETS2 emissions in Poland will rise from around two-thirds in 2028–2030 to over 80% by 2040.

- ETS2 costs resulting from coal-fired heating will fall from EUR 0.8 billion in 2028 to around EUR 0.2 billion in 2035, and then to virtually zero by 2040. This is conditional upon the implementation of the building renovation plans set out in Polish strategic documents.
- In the coming years, the share of households in ETS2 costs will also fall whilst between 2020 and 2025 fossil fuels purchased directly by households in Poland accounted for around 50% of emissions in the sectors covered by ETS2, by 2035 this share will fall to around 40%, and by 2040 – to around one-third.

Impact of ETS2 on fuel prices

- In the case of transport fuels and natural gas, the introduction of ETS2 will not lead to a price revolution for households and businesses. Prices for these energy sources are likely to remain within the range set by market trends in previous years.
- The exception is coal, for which a significant price shock is to be expected (a one-off price rise of 25–30%), although this is likely to be smaller than during the fuel crisis of 2022.

The impact of ETS2 on vulnerable groups

- Households in the lower half of the national income distribution who use coal are most at risk of rising heating costs. Natural gas users will also pay more, though the scale of the increases will be smaller in their case. Particularly vulnerable groups include pensioners living in homes that are too large or poorly insulated, as well as residents of rural areas (including farmers) and small towns with limited access to district heating.
- The direct rise in transport fuel prices will hit owners of diesel cars with the lowest incomes the hardest. Higher transport costs will be felt most acutely by citizens who have to rely on commuting by car due to a lack of adequate public transport services, as well as the nature of their work. This problem is particularly acute for residents of rural areas, where a lack of adequate access to medical services, schools or the labour market forces them to travel outside their place of residence.

Revenue from ETS2 available for modernisation and protection

- The implementation of ETS2 in its current form will generate revenue for the Polish budget of approximately PLN 124 billion (around EUR 28 billion) by 2032, of which PLN 48 billion (EUR 11.4 billion) will come from the Social Climate Fund and up to PLN 76 billion (around EUR 17 billion) from national CO_2 emission allowance auctions. This is approximately PLN 20 billion (around EUR 4.2 billion) less than in the scenario where the system starts in 2027. PLN 64 billion (around EUR 15 billion) of this total amount will be covered by the agreed with the European Commission, whilst PLN 60 billion (around EUR 14 billion) will consist of revenues from the sale of allowances acquired by the Polish government remaining outside the Social Climate Plan.

- During the period of the Social Climate Fund implementation, ETS2 revenues received by Poland and the costs incurred by Polish entities within the system will remain at a similar level. The slow reduction in emissions from road transport in the 2030s will mean that, as early as 2033, a gap between national revenues and costs will emerge if there are no new additional measures.

Wide range of possible uses for ETS2 revenues

- Following the implementation of ETS2, the Polish government will have a wide range of options for supporting investment and providing safeguards for citizens and businesses. ETS2 revenues could be allocated to finance, among other things:
  - investments in public transport (e.g. hundreds of trains, thousands of electric buses, on-demand vehicles, tens of thousands of bus stops);
  - renovation of single-family homes (for basic-level renovation funding, half of the ETS2 revenue pool would be sufficient to support half a million households) and the construction of new, energy-efficient council flats;
  - large-scale energy advisory programme, complementing investment support for the modernisation of buildings;
  - pilot support for investments in the decarbonisation of industrial plants that have so far remained outside the EU ETS;
  - direct support for the energy-poor households;
  - reducing household bills – including through a reduction in VAT on energy carriers.
- The government will have to make a strategic choice regarding priority areas for intervention, as revenues from the system will not be sufficient to implement all measures simultaneously – even with the additional transfer of funds under the Social Climate Plan.

Recommendations on the use of ETS2 revenues in Poland

- **Making use of the wide range of options in the spirit of a fair and ambitious transition.**

ETS2 revenues provide Member States with considerable flexibility regarding how they are spent. These funds can finance both decarbonisation investments, e.g. in the buildings and transport sectors, and protective measures.

- **Transparent and strategic management of ETS2 revenues in dialogue with stakeholders.**

We recommend the establishment of an Energy Transition Fund, financed by revenues from the EU ETS and ETS2. A transparently managed Fund would help to increase public and business confidence in the state's effective management of these funds. In parallel, a multi-year plan for the strategic use of ETS2 revenues should be developed.

- **Finalisation and adoption of the Social Climate Plan.**

The SCP is a prerequisite for Poland's access to nearly PLN 50 billion in EU funds. These funds are crucial for the rapid launch of investments and support measures

that will limit the additional costs associated with the implementation of ETS2 for the most vulnerable.

- **Accelerating the phase-out of coal in households.**

In the coming years, the overarching objective of support financed from ETS2 revenues should be the implementation of the rapid decarbonisation scenario for buildings set out in Polish strategic documents, which will reduce the costs of ETS2 for this sector. The priority should be to phase out coal heating as quickly as possible.

- **Accelerating plans for the decarbonisation of transport by 2040.**

Current plans to reduce transport sector's dependence on fossil fuels are insufficient to ensure alignment with the pace of change in European road transport implied by climate targets and the future decline in the volume of allowances in the ETS2 system.

Recommendations at EU level

- **Increasing the predictability of ETS2 implementation.**

Increased predictability will help mobilise private capital for investments in the transition away from fossil fuels in the sectors covered by ETS2. Therefore, the agreed at political level ETS2 reforms at should be enshrined in the ETS Directive.

- **Extending and increasing the availability of EU funds for the just and fair transition, including the continuation of the SCF beyond 2032.**

The challenges associated with energy and transport poverty will not end in 2032. Additional national and EU funds are needed to extend investment support.

- **Targeted reduction of the burden on coal.**

In order to ensure a fair and effective transition for households that use hard coal for heating, consideration should be given to establishing an appropriate legal framework at EU level. However, the reduced carbon price in the ETS2 must not be lower than that for natural gas and should be linked to a specific national decarbonisation investment commitment.

- **Establishment of a hard price cap.**

A maximum price level for allowances would alleviate the concerns of some Member States regarding a sharp rise in the system's operating costs and facilitate the timely implementation of ETS2. This solution could be simpler to implement formally than a full price corridor.

1. ETS2 – introduction

1.1. What is ETS2?

Sectoral scope and functioning of the system

ETS2 is the EU's trading scheme for CO_2 emissions from fossil fuel combustion in the road transport sector, building heating, and small industrial and energy installations (with a capacity of less than 20 MW). Its name and structure are based on the EU ETS (*EU Emissions Trading System*), which has been in operation since 2005 and covers the energy, heavy industry, and air and maritime transport sectors.

Both systems operate on a *cap-and-trade basis*. Emission caps are set at European level for each year – separately for the EU ETS and ETS2. Companies must report their emissions and surrender the corresponding number of allowances (1 allowance per 1 tonne of CO_2). This creates demand for allowances. The supply of allowances, in turn, is provided by auctions organised by the European Commission and Member States, as well as free allocation to selected sectors. The price of allowances is therefore determined by supply and demand at auctions and on the secondary market (the 'trade' element of the system).

In the case of ETS2, the obligation to purchase allowances rests with entities placing fuels on the market, i.e. fuel companies and coal sellers (importers and producers). The additional cost resulting from the purchase of allowances will be passed on in fuel prices to end users – fuel consumers (citizens and businesses). This provides a price signal to reduce fossil fuel consumption, encouraging energy saving and a shift to lower-emission technologies, such as the purchase of a heat pump or an electric car.

Revenue sharing and the mechanism for stabilising allowance prices in ETS2

ETS2 revenues will go directly to EU Member States, which sell allowances at auctions. Importantly, the number of allowances sold by a given country is not directly linked to the number of allowances purchased in a given year by entities operating within its territory. The allocation of the pool for sale is determined based on a country's share of emissions from sectors covered by ETS2 in the years 2016–2018. As a result, Poland will receive approximately 8% of the allowances in the system for sale at auction each year. Part of the revenue from ETS2 will also go to the Social Climate Fund (SCF).

As in the EU ETS, the ETS2 system operates a *Market Stability Reserve* (MSR). Its purpose is to stabilise allowance prices, particularly during the initial phase of the

system's functioning. The ETS Directive[1] specifies the situations in which the MSR will be triggered automatically. For example, if the average price of allowances over the last three months exceeds twice the average price of allowances over the preceding six months, an additional 50 million allowances will be released onto the market.

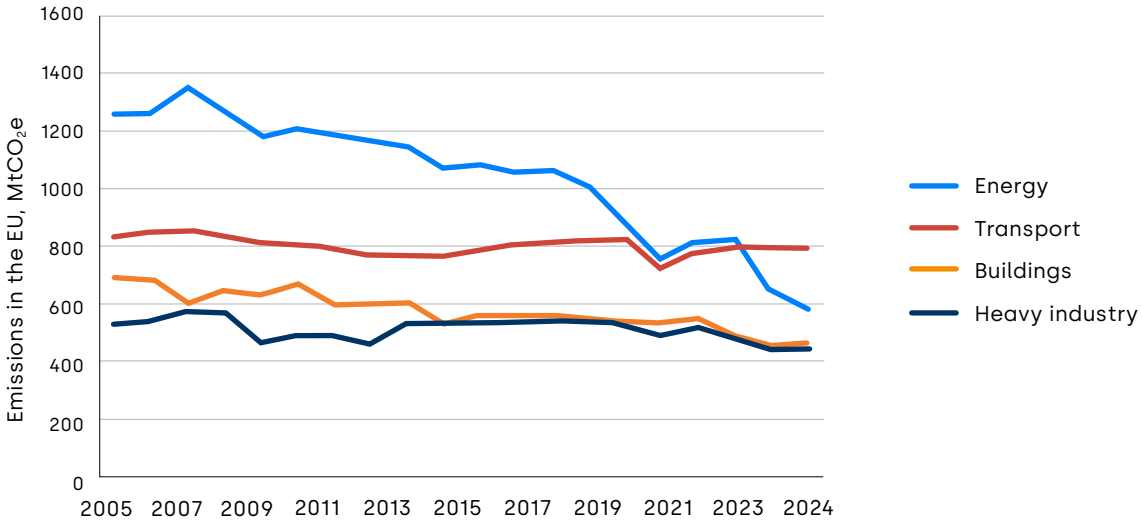
1 The current text of the ETS Directive (2003/87/EC) available here.

ETS2 as part of a broader set of energy and climate policy tools

Despite the European Union's efforts to date, the rate of emissions reduction in the transport and buildings sectors remains insufficient. Emissions linked to energy consumption in buildings have remained at a similar level for most of the past decade. They only began to fall following the fuel crisis that began in 2021. Emissions in the transport sector, on the other hand, have remained at a similar level for two decades. This rate of reduction does not allow for the achievement of sectoral targets, which contribute to the goal of reducing emissions across the entire EU economy by 55% by 2030, nor does it allow for the achievement of climate neutrality by 2050.

ETS2 was designed as part of the Fit for 55 package, which sets out the regulatory framework for achieving the EU's 2030 climate and energy targets. The functioning of the new system is regulated by the 2023 amendment to the ETS Directive. ETS2 is intended to close the emissions reduction gap and support the implementation of other sectoral policies, such as the Energy Performance of Buildings Directive (EPBD).

Figure 1. Slow progress in reducing emissions in the buildings sector and a lack of progress in the transport sector threaten the achievement of European climate targets



Source: own analysis based on the EU Climate Action Progress Report 2025.

Implementation of ETS2 at EU level and in Poland

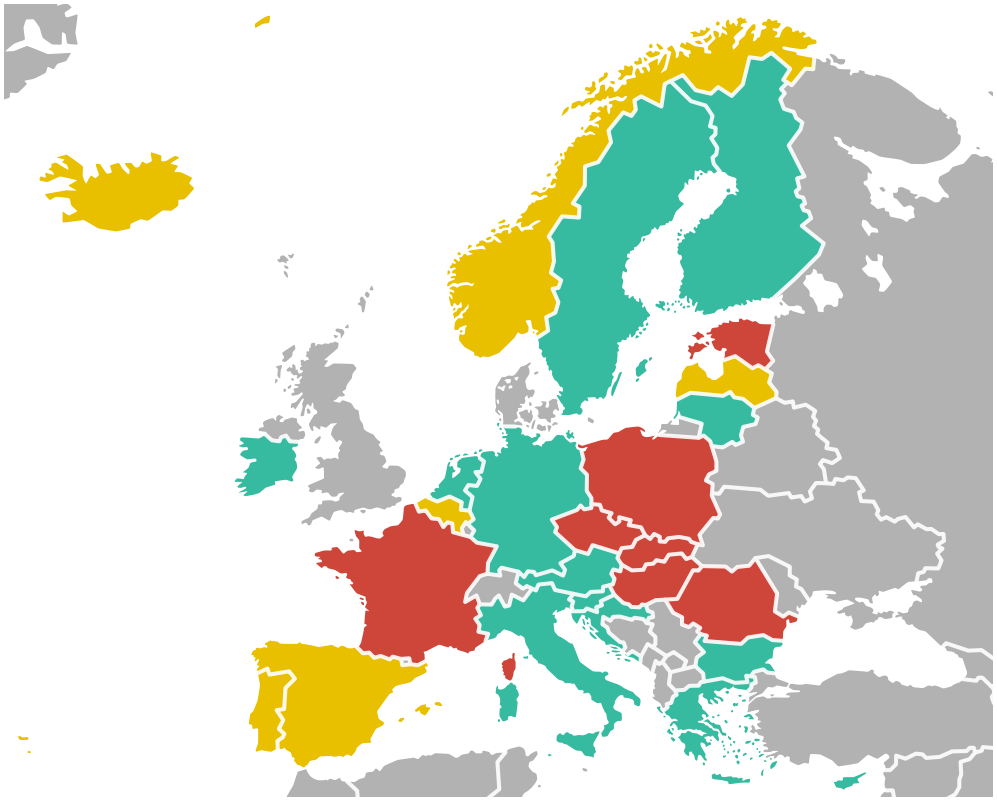
ETS2 was originally scheduled to come into force on 1 January 2027. However, the ETS Directive provided for the possibility of postponing the system's implementation until early 2028. This was to be conditional on exceptionally high energy prices in 2026. Meanwhile, in November 2025, during negotiations on the 2040 climate target, the Council of the European Union and the European Parliament decided

to postpone the launch date of ETS2 by one year – despite the absence of the conditions specified in the directive.

Although the deadline for transposing the ETS2 provisions into national law expired on 30 June 2024, Poland has still not implemented the relevant regulations. In July 2024, the European Commission initiated infringement proceedings against Poland and other Member States (then totalling 26 countries) for breaching EU law[2]. Since then, most EU countries have implemented or made significant progress in implementing ETS2 at national level.

2 The European Commission's communication is available here.

Figure 1. More than a dozen EU countries have already transposed ETS2 – not just in Western Europe



Green – 'completed'; yellow – 'in progress'; red – 'slow progress'. As of 12 November 2025.

Source: IETA Tracker[3].

3 The IETA Tracker is available here.

1.2. Social Climate Fund

The Social Climate Fund (SCF) was established as a tool to mitigate the negative social impacts of the introduction of ETS2. It is designed to support the most vulnerable households, transport users and small businesses. The proposal to establish it was put forward in 2021 alongside the draft of the new ETS2 system, as part of the Fit for 55 package. The regulation establishing the Social Climate Fund was adopted in May 2023[4] .

The SCF is set to operate between 2026 and 2032. Payments from the Fund are to be covered by proceeds from the sale of emission allowances, although until the launch of ETS2, the fund will be financed from a special pool of allowances within the EU ETS.

4 Regulation (EU) 2023/955 of 10 May 2023 establishing the Social Climate Fund can be found at this link.

The maximum budget for the SCF is EUR 65 billion when the system launches in 2027. Under the original rules, this amount was to be reduced to EUR 54.6 billion in the event of a one-year delay. However, when deciding to postpone the implementation of ETS2 by one year as part of negotiations on the 2040 climate target, the Council of the European Union and the European Parliament indicated that the Fund's maximum budget would remain at €65 billion despite the postponement of the ETS2 launch to 2028. As of mid-February 2026, no mechanism had yet been established to cover the funding gap in the Fund in 2027.

The allocation of funds among Member States takes into account the share of emissions from sectors covered by ETS2 and the extent of energy and transport poverty in individual countries. Poland will therefore be the largest beneficiary of the SCF, receiving 17.6% of the total funds accumulated in the Fund. However, a condition for disbursement is that the Member State first submits, and the European Commission approves, a document setting out how these funds will be spent – the Social Climate Plan (SCP). The EC also emphasises the need to implement ETS2 into national law as one of the conditions for the approval of the SCPSCP. Member States must also ensure their own contribution to national SCPs at a level of at least 25% of the plan's value. These funds may come, amongst other sources, from the sale of ETS2 allowances.

The beneficiaries of measures funded under the Plan are to be households exposed to ETS2 implementations or energy and transport poverty, as well as vulnerable micro-enterprises. The SCP may include both direct income support (cash transfers – up to 37.5% of the total funds allocated under the Plan) and support for investments in infrastructure and zero-emission technologies (e.g. public transport and building renovations).

Member States were required to submit their SCPs to the European Commission by the end of June 2025. So far, only five countries have submitted their plans, and one of them – Sweden's – has been approved[5]. Poland has still not officially submited its SCP to Brussels, despite the public consultation on the draft document having concluded in June 2025[6].

1.3. ETS2 reform – the current state of play

Changes to improve predictability

In June 2025, 19 Member States supported the Czech position[7], which highlighted the problem of price uncertainty arising from ETS2 and the need for changes to the system. However, the document did not call for the abolition of the system, nor for a significant postponement of its implementation. Instead, it emphasised the need to increase the predictability of emission allowance prices during the first years of ETS2's functioning.

The Czech proposal envisaged technical modifications to the system, including:

- strengthening the mechanism to limit excessive price increases for allowances under the ETS (by increasing the number of allowances released onto the market and intervening more frequently when the price exceeds 45 EUR/tCO_2);
- extending the MSR mechanism beyond 2031;

5 A summary of information on Member States' Climate Action Plans can be found on the European Commission's website.

6 The latest version of the plan for Poland from June 2025 is available in Polish on the European Funds website.

7 The Czech non-paper, dated 25 June 2025, is available on the carbon-pulse.com portal.

- starting the sale of allowances as early as 2026 to mobilise investment from ETS2 revenues sooner;
- regular and transparent publication of data on sectors covered by ETS2, influencing demand for allowances (e.g. the rate of heat pump installations and electric car sales), which would improve the quality of market forecasts.

In response, in November 2025, the European Commission announced significant changes to ETS2. Their consequences may be greater than the enforced one-year postponement of the system's launch (see Figure 2).

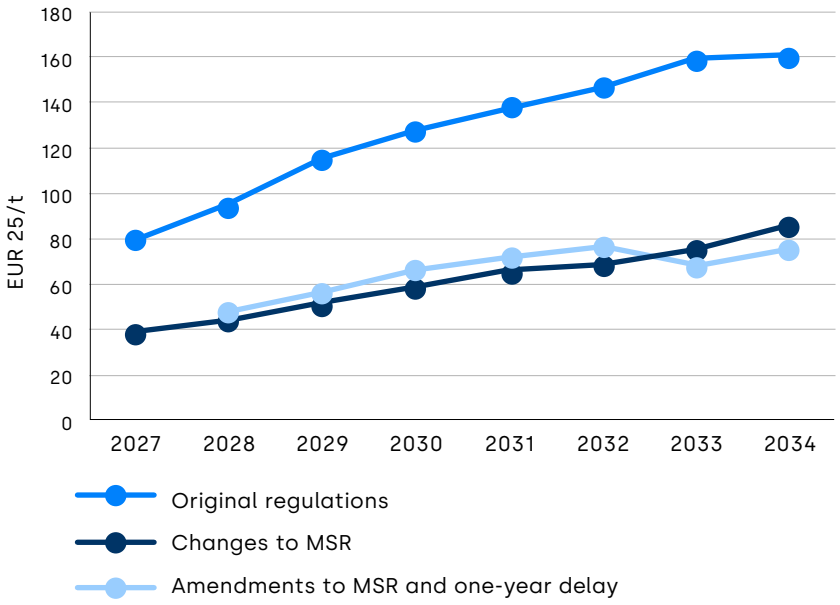
The main element of the EC's announcement[8] is a proposal to amend the functioning of the Market Stability Reserve (MSR) mechanism (described in Chapter 1.1.). The proposals are in line with the recommendations of the Czech document and are intended to increase the predictability of the system, as well as its acceptance. The proposed modifications to the MSR include, amongst other things:

- doubling the number of allowances released onto the market (from 20 to 40 million) in the event of high prices and increasing the frequency of automatic interventions (to twice a year);
- extending the functioning of the price cap mechanism beyond 2030, without cancelling the unused allowance pool;
- earlier and more fluid market interventions based on a regulated minimum and maximum number of allowances in circulation (TNAC – *total number of allowances in circulation*).

The above changes may result in a real reduction in allowance prices within the system by significantly increasing their supply on the market in the first years of the ETS2's functioning.

8 Draft amendments to the ESD of 27 November 2025 (COM(2025)738).

Figure 2. The changes to the MSR announced by the European Commission will reduce allowance prices in the first years of the scheme's implementation



Note: real values (adjusted for inflation) in 2025 prices.

Source: own calculations based on Veyt's estimates[9].

9 Veyt's estimates are presented in the presentation *'Changes to the ETS2 framework. An impact assessment'*.

In addition to the proposed changes to the MSR, and in order to ensure that the revenues for the decarbonisation of sectors covered by ETS2 are made available earlier, the European Investment Bank (EIB) and the European Commission (EC) have created a new lending instrument, the ETS2 Frontloading Facility. Member States will be able to make use of this instrument even before ETS2 comes into force in 2028. Access to the EUR 3 billion fund[10] is conditional upon the transposition of ETS2-related provisions into national law,[11] as the loan is to be repaid using revenues from the system that Member States will receive.

The European Commission has also announced that it will bring forward the auctioning of allowances under ETS2, which is intended to increase – from as early as 2027 – the availability of funds for investments in the decarbonisation of the buildings and transport sectors.

Postponement of the ETS2 launch by a year

Under pressure from some Member States, the start date of ETS2 was postponed to 1 January 2028, without the need to meet the condition of high energy prices (see Section 1.1.). This change was proposed by the Environment Council in November 2025 as part of negotiations on amendments to the European Climate Law, specifically regarding emission reduction targets for 2040. The European Parliament endorsed this change a week later, and the new regulations were formally adopted in early 2026[12].

However, the launch of ETS2 in 2028 does not alter the ambition for emissions reductions across the entire system. In practice, this may mean that decarbonisation will need to be accelerated in the coming years, unless sufficiently ambitious measures are taken before the system comes into force.

The delay will not ultimately change the date of the Social Climate Fund's implementation (from 2026) or its total budget[13]. This represents a change from the original plans regarding the Fund's functioning. According to those assumptions, a one-year delay was to result in a reduction in the pool of funds allocated from the Social Climate Fund to Member States – in Poland's case by PLN 7.6 billion.

The lack of SCF funding from ETS2 revenues in 2027 is to be partially offset by funds from the EU ETS – as was the case with the 2026 allocation. However, only EUR 4 billion has been earmarked for this purpose across the entire EU. These funds will not be sufficient to cover the shortfall in the SCF resulting from the one-year delay in the introduction of ETS2. The pool available in 2027 will be EUR 6.9 billion smaller. Filling this gap in the SCFSCF budget from system revenues will be possible in subsequent years, following the full implementation of ETS2.

A political decision to fully cover the gap in the SCF is possible, e.g. by launching auctions earlier or increasing funding for the EIB's ETS2 Frontloading Facility. However, at the time of writing (February 2026), no such decisions had been taken.

Regardless of the final decisions regarding how the SCF funding gap will be covered, given the one-year delay in the system's launch and changes to the MSR mechanism, Member States must expect a smaller pool of ETS2 revenues to be allocated to them directly from the sale of allowances (see Section 3.1).

10 The announcement regarding *the ETS2 Frontloading Facility* is available on the EC portal.

11 *Joint Civil Society Letter: Social and Green EIB Coalition Recommendations for the EIB's ETS2* available on the FEANTSA website.

12 See the summary of the new regulations on the Council of the EU website.

13 See the Carbon Market Watch article for further details.

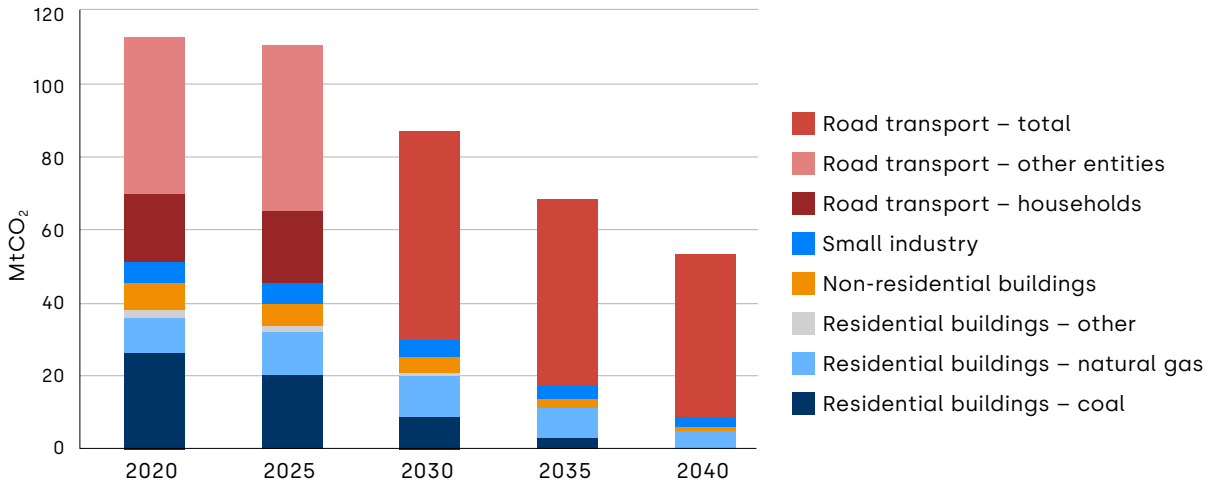
2. ETS2 costs – how will the burden be shared?

2.1. ETS2 costs in Poland: the key role of transport and businesses

Although public debate in Poland focuses on the impact of ETS2 on the buildings sector and on household budgets, road transport is the larger source of emissions across the economy as a whole – and, consequently, also the sector bearing the heaviest burden in connection with the introduction of ETS2. This disparity will widen over the next dozen years as emissions from the buildings sector fall steadily due to the phasing out of coal for heating Polish homes.

In the first three years of the scheme's functioning, the buildings sector will account for around 30% of total emissions under the ETS2. However, by the end of the 2030s, its share will fall to around 13%. The opposite trend applies to road transport. Its share of emissions covered by ETS2 will rise from 64% in 2028–2030 to over 80% by the end of the next decade. This is influenced by constraints on the pace of the sector's transition, including the long vehicle fleet replacement cycle, higher costs and greater organisational challenges associated with the use of alternative powertrains in the heavy-duty vehicle segment, and insufficiently developed infrastructure for powering zero-emission vehicles.

Figure 3. Over the next decade, road transport will dominate ETS2 emissions in Poland.

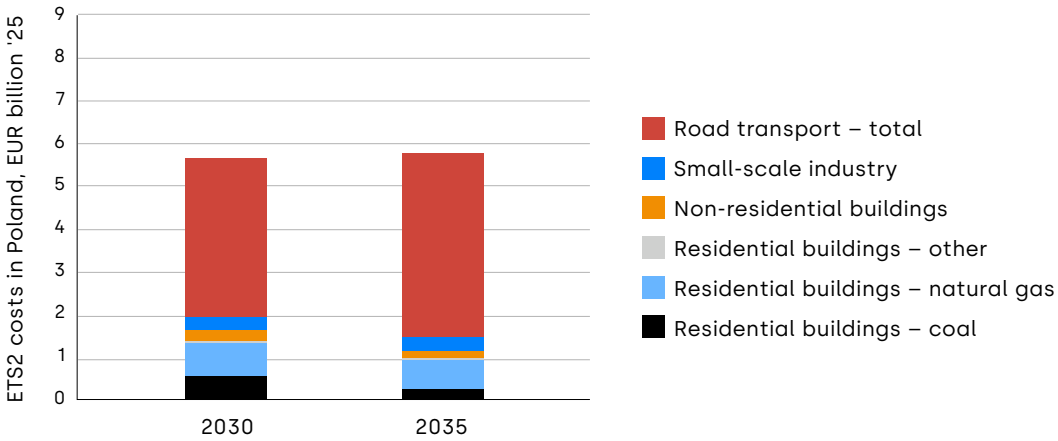


Source: own analysis based on Eurostat data, the Polish WAM NECP scenario (December 2025) and the assumptions of the PolishNBRP project.

In the coming years, the share of households in emissions covered by ETS2 will also decline, as in the case of road transport – unlike in the case of buildings – it is businesses that are the main consumers of fossil fuels. Whilst in the period 2020–2025 fossil fuels purchased directly by households in Poland accounted for around 50% of emissions in the sectors covered by ETS2, by 2035 this share will fall to around 40%, and by 2040 to around one-third[14] .

A comparison of the projected domestic emission volumes covered by ETS2 with the projected allowance prices (see Figure 2) indicates that Polish businesses and households will incur additional expenditure of around EUR 4.5 billion in 2028 as a result of the scheme coming into force. The annual costs of the system will rise to around EUR 5.5–6 billion by 2030 and stabilise at this level until the mid-2030s.

Figure 4. The projected fall in emissions and the rise in allowance prices will balance each other out, stabilising the total cost of ETS2 for Poland by the mid-2030s.



Source: own analysis based on Eurostat data, the WAM NECP scenario (December 2025), the assumptions of the NBRP project and Veyt forecasts.

Importantly, the total cost of participating in ETS2 will follow different trajectories for buildings and transport. The pace of decarbonisation of buildings set out in Polish strategic documents facilitate a reduction in the total ETS2 costs for this sector, despite the projected rise in emission allowance prices. In particular, the annual ETS2 costs resulting from the use of coal for heating buildings will fall relatively quickly, provided that the announced measures to decarbonise the buildings sector in Poland are implemented. If the operational scenario for building renovation presented in the NBRP is implemented, the costs arising from coal heating will fall from EUR 0.8 billion in the year the system is introduced (18% of total ETS2 costs in 2028), to around EUR 0.2 billion in 2035, and then to virtually zero in 2040, when coal ceases to be used for heating buildings[15] .

However, in the case of road transport, government forecasts for the coming decade assume that emissions will be reduced too slowly to prevent an overall increase in ETS2 costs borne by the sector as allowances become more expensive. Whilst this effect is offset by faster emission reductions in the buildings sector until 2035, in the longer term, a failure to accelerate the transformation of the road transport sector beyond the current assumptions of the draft updated NECP may lead to a significant increase in the total ETS2 cost borne by the Polish economy.[16]

14 Estimates assuming that the share of households in emissions from road transport at the in 2025. The updated NECP draft forecasts do not provide a detailed breakdown of from transport by vehicles owned by companies and households.

15 The phase-out of coal combustion in households in Poland by 2040 is also one of the key objectives of the current Polish Energy Policy adopted in 2021.

16 For example, if the trends from the Veyt forecasts are maintained until 2040 (given the high degree of uncertainty surrounding these projections), the total cost of ETS2 for Poland could rise to around EUR 8 billion by the end of the next decade.

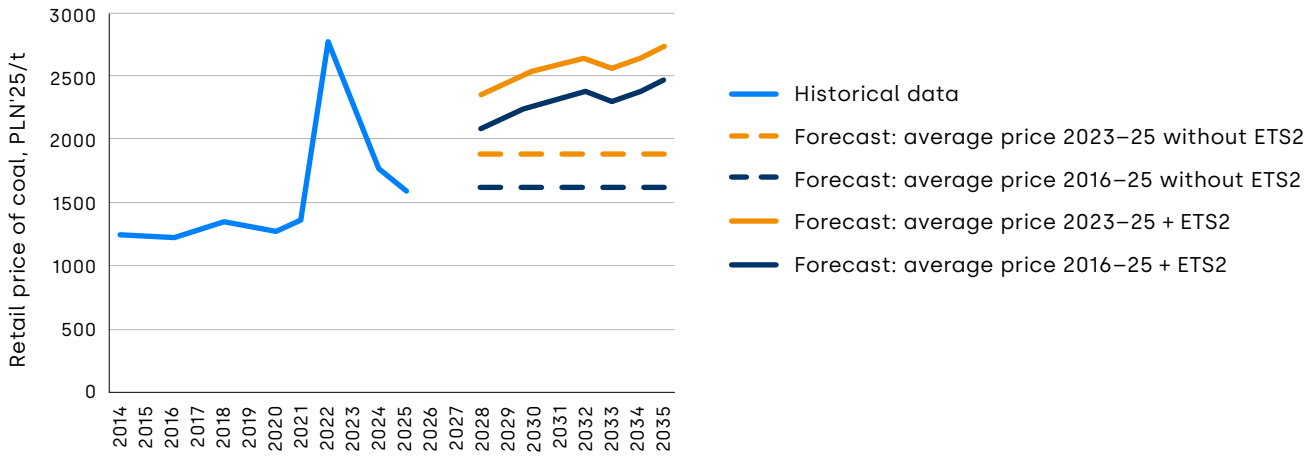
2.2. The impact of ETS2 on fuel prices

The introduction of ETS2 will have a significant impact on heating costs for households using coal. This is largely due to the high carbon emissions associated with this fuel compared to gas or heating oil. By 2028, the price of a tonne of coal could rise by around PLN 470,[17] and will therefore be 25–30% higher than in a scenario without ETS2 implementation[18]. This represents the largest single price surge for this fuel since the crisis in 2022, when prices nearly doubled. Given current price forecasts within the ETS2 system (taking into account, among other things, the additional supply of allowances under the MSR), it is unlikely that retail coal prices will consistently exceed the levels recorded during the fuel crisis until the mid-2030s. At the same time, the price of this fuel will rise steadily, and by 2035 ETS2 will increase the cost of coal heating by around half.

17 Here and below, real prices are given, reflecting the purchasing power of money in 2025.

18 Depending on the situation in the fuel market.

Figure 5. The impact of ETS2 on coal prices will be greater than typical market volatility; however, an initial price shock similar to the 2022 crisis is unlikely

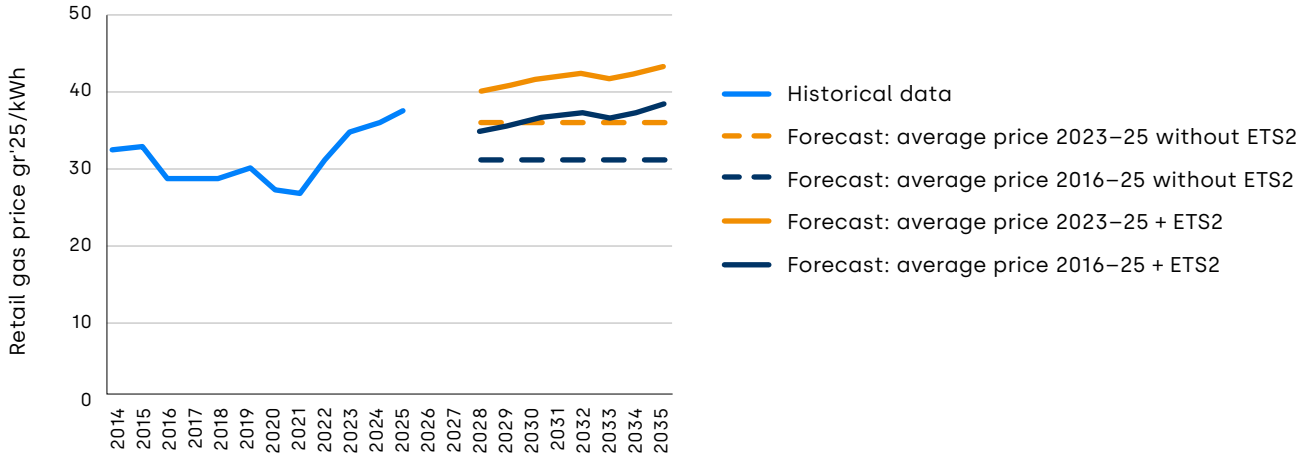


Note: real prices adjusted for CPI inflation, reference year – 2025.

Source: own calculations based on data from the Statistics Poland (GUS) and Veyt forecasts.

In the case of natural gas, the rise in retail prices for households resulting from the implementation of ETS2 will amount to approximately 11–13% in 2028 and approximately 20–23% by the mid-2030s. It will therefore be significantly lower than for coal, and consumer bills will largely be determined by the broader situation on the natural gas market. With import costs for this commodity stabilising in the medium term, a slight reduction in prices for households compared to current levels is even possible, despite the implementation of ETS2. However, it remains likely that the upward trend will continue through to 2035, with natural gas prices reaching levels higher than in recent years, when – unlike in the case of the coal market – a one-off shock in the wholesale market for the commodity was mitigated by spreading the additional cost over several years in regulated tariffs for consumers.

Figure 6. The impact of ETS2 on gas prices will be less significant than in the case of coal; however, it will add up to the higher import costs of gas compared to pre-crisis levels in 2021–2022

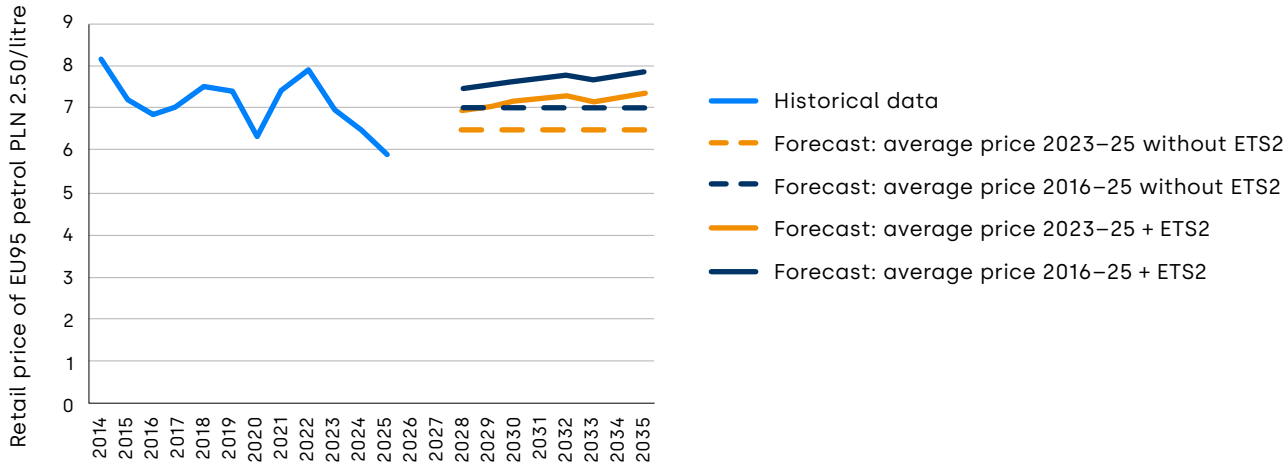


Note: real prices taking into account the CPI inflation rate, reference year – 2025.

Source: own calculations based on data from Eurostat, the Energy Regulatory Office (URE) and Veyt forecasts.

The impact of ETS2 on transport fuel prices will also be felt, though to an even lesser extent than for natural gas: the price increase triggered by the system's implementation will amount to around 7% in 2028 and 12–13% by the mid-2030s. In the case of transport fuels, the rise in retail prices caused by ETS2 is significantly smaller than the fluctuations observed in recent years resulting from the situation on the global oil market. Importantly, in real terms, recent years have seen a period of relatively low prices at petrol stations, a fact often overlooked in public debate focused on nominal values. It is therefore unlikely that the currently projected costs of purchasing allowances under ETS2 will lead to a sustained rise in transport fuel prices above the price range seen in the previous decade.

Figure 7. The impact of ETS2 on transport fuel prices in the first years of the system's functioning will be smaller than the volatility resulting from the situation on the global market



Note: real prices taking into account the CPI inflation rate, reference year – 2025.

Source: own calculations based on POPiHN data and Veyt forecasts.

In summary, for most of the fuel volumes covered by ETS2, the introduction of the system and its functioning over the next decade will not result in a price shock for households and businesses on the scale of the energy crisis. The exception is coal, for which a significant price shock is to be expected; however, it will be less severe than the crisis of 2022, and its impact will diminish over time as this fuel is phased out of buildings.

2.3. Groups requiring additional support

In accordance with the principles of a just and fair transition, substantial support should be directed towards groups most vulnerable to rising energy and transport costs. That is why part of the ETS2 revenues has been allocated to the Social Climate Fund (we discuss this in Chapter 1). These funds will be spent on measures planned under the Social Climate Plan (SCP). The preparation of this plan is a prerequisite for the allocation of funds to Member States.

Poland began drafting the SCP in mid-2024, and in June 2025 its draft was published for public consultation[19]. The draft attempted to identify social groups affected by energy and transport poverty. It also identified the necessary safeguards and investments.

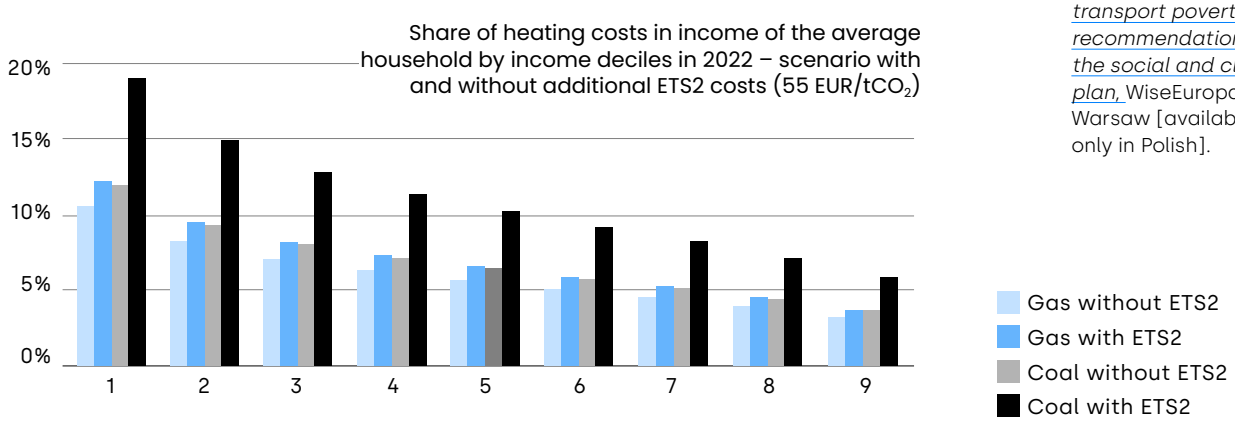
We presented our own analysis in the report '*To overcome energy and transport poverty Social Climate Plan as an instrument for structural change*[20]. Below, we summarise the main findings regarding the groups most vulnerable to energy and transport poverty.

Energy poverty

Households in the lower half of the national income distribution who use coal are the most vulnerable to rising heating costs due to the ETS2 implementation (see Figure 7). Particularly vulnerable groups include pensioners living in homes that are too large or uninsulated, as well as residents of rural areas (including farmers) and small towns with limited access to district heating[21].

The rise in bills resulting from ETS2 will be felt not only by lower-income households, but also by wealthier individuals heating their homes with coal. Natural gas users will also pay more, though the scale of the increases will be smaller in their case.

Figure 8. ETS2 will place a heavier burden on the budgets of households using coal than those using natural gas



Source: Reform Institute's report 'To overcome energy and transport poverty Social Climate Plan as an instrument for structural change".

19 The latest version of the plan for Poland from June 2025 is available in Polish on the European Funds website.

20 Wojtyło, M., Augustowski, W., Lipiński, M., Stefańczyk, A., Śniegocki, A. and Wetmańska, Z. (2025); *To overcome energy and transport poverty Social Climate Plan as an instrument for structural change*, Reform Institute:Warsaw.

21 Gutowski, P., Głowacki, K. (2023); *National Report. Study on the impact of the EU ETS 2 on the well-being of households in Poland in the context of energy and transport poverty – recommendations for the social and climate plan,* WiseEuropa, Warsaw [available only in Polish].

The variation in costs reflects differences in the harmfulness of fuels. Coal combustion generates higher carbon dioxide emissions and additional air pollution, including sulphur dioxide, nitrogen oxides and particulate matter. These emissions cause cancer and respiratory and cardiovascular diseases, resulting in the premature deaths of thousands of people annually in Poland. For example, PM2.5 particulate matter contributed to the deaths of over 25,000 people in Poland in 2023.[22]

22 See EEA (2025), *Harm to human health from air pollution in Europe: burden of disease status.*

Therefore, an effective price signal is needed to discourage the use of high-emission fuels. At the same time, support should mitigate the social impacts of the transition. For this reason, in Chapter 4, where we present proposals for measures aimed at temporarily cushioning the price shock associated with the introduction of ETS2, we assume that any measures to reduce the system's impact on coal prices must not lead to a situation where the cost of this fuel per unit of energy is lower than that of lower-emission fuels, including natural gas.

Transport poverty

A direct rise in transport fuel prices will hit owners of diesel-powered cars with the lowest incomes the hardest. Those forced to make regular long-distance journeys and living in areas with limited access to public transport are particularly vulnerable.

However, the income criterion alone does not fully identify vulnerable groups. A higher proportion of transport expenditure in household budgets is found among those living in sparsely populated areas, where car journeys are more frequent and cover greater distances. At the same time, the wealthiest (the fifth income quintile of households in Poland) spend more than twice as much of their budget on fuel as the poorest (the first quintile)[23].

23 Eurostat data for 2020 [hbs_p_ t223].

Higher transport costs therefore affect most those who have to rely on commuting by car due to a lack of access to public transport, as well as the nature of their paid work. This problem is particularly acute for residents of rural areas, where a lack of adequate access to medical services, schools or the labour market forces them to travel far outside their place of residence.

Restrictions on access to transport can vary even among members of the same household. Children and young people are dependent on public transport timetables when travelling to school. On the other hand, elderly even if they own a car, often stop driving due to health reasons. However, a decline in health means more frequent need to visit healthcare facilities outside their place of residence.

The availability of public transport is not the only factor contributing to difficulties in meeting transport needs. Problems may also affect drivers, who face greater health risks due to long commutes, poor road conditions and the state of vehicles they use. At the same time, residents of smaller towns, despite good public transport service, may choose not to use it due to low incomes (e.g. when travelling to regional capitals).

3. ETS2 revenues – billions for modernisation and protection

3.1. How much of ETS2 revenues will go to the Polish budget?

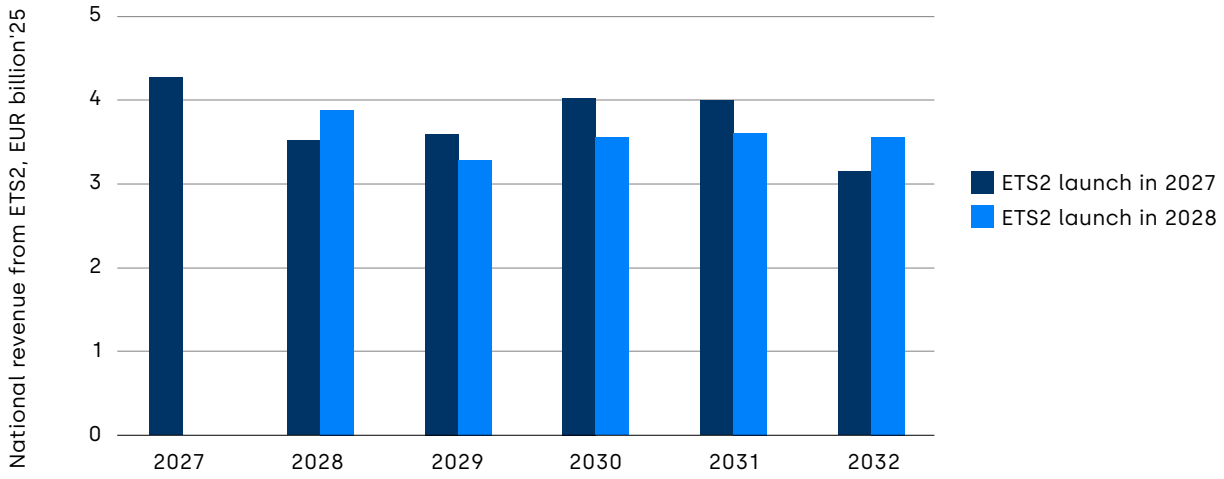
Under the ETS Directive, most of the revenue from the sale of allowances under ETS2 – after deducting funds earmarked for the Social Climate Fund (SCF) – will go directly to the national budget of the countries participating in the system. Poland will receive approximately 8% of the SCF, in proportion to historical emissions from the sectors covered by the scheme. This means that the funds flowing into Poland will depend on several parameters that have changed because of the one-year delay in the scheme's launch and the planned changes to the MSR reserve[24]:

- the total number of allowances for sale (a decrease due to the one-year delay in the system's launch, an increase due to planned ETS reforms),
- the price of allowances (a decrease due to planned MSR reforms),
- the number of allowances to be transferred to the SCF (a fall in allowance prices leads to an increase in the number of allowances required to be sold by the European Commission to achieve the SCF's nominal value).

Figure 9 shows an estimate of the revenues from the sale of allowances that will be available to the Polish government by 2032, considering the above changes. In addition, we present an estimate of ETS2 revenues for Poland in the scenario where the system is launched in 2027, as originally planned. Despite annual fluctuations in the number and projected price of allowances sold, their value remains relatively stable, in the range of EUR 3–4 billion per year. The higher value in the first year of the system's operation results from *frontloading*; meanwhile, in subsequent years, the gradual decline in the volume of allowances available for sale is offset by an increase in their prices. Total ETS2 revenues flowing directly to the Polish government by 2032 will amount to approximately EUR 17.8 billion with the system launching in 2028, EUR 4.6 billion less than in the scenario where ETS2 launches in 2027.

24 A detailed discussion of the mechanisms indicated can be found in the Annex.

Figure 9. Poland's annual revenue from the sale of allowances in the first years of the ETS2 scheme will amount to EUR 3–4 billion

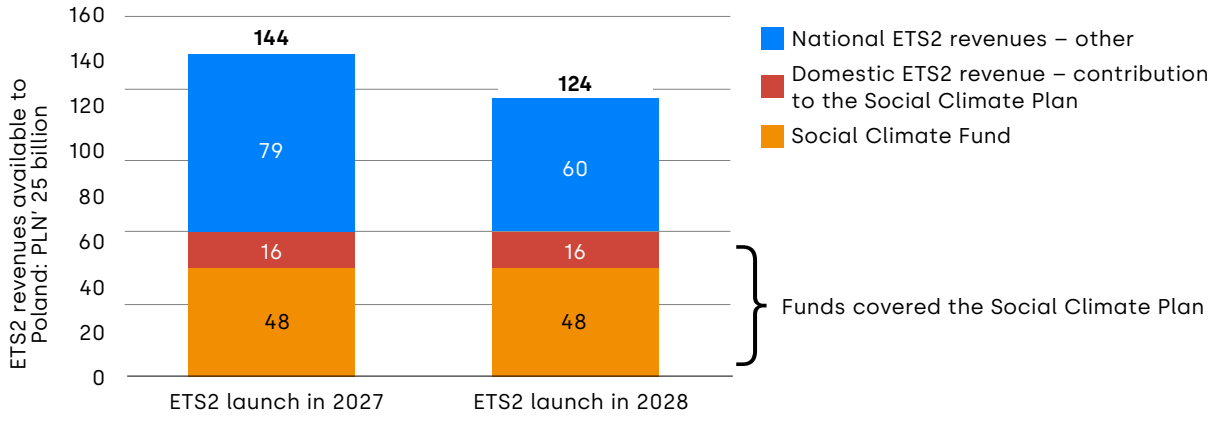


Source: own analysis based on data from the Veyt forecast, European Commission data and own assumptions (see appendix).

In addition to direct revenue from the sale of allowances, Poland will also receive 17.6% of the funds accumulated in the Social Climate Fund (EUR 11.44 billion by 2032). These funds will be spent in accordance with the Social Climate Plans. Member States must provide a 25% own contribution for actions implemented under the Social Climate Plans – in Poland's case, this will amount to over EUR 3.8 billion. Although Member States are not formally obliged to finance their own contribution directly from revenue from the sale of allowances, in practice this contribution reduces the net total of ETS2 revenues that the government can allocate outside the Social Climate Plan.

Overall, following the implementation of the system in its current form, the Polish government will have a total of approximately PLN 124 billion at its disposal by 2032, of which PLN 64 billion will be covered by the Plan agreed with the European Commission, and PLN 60 billion will constitute revenues remaining outside the SCP. This is approximately PLN 20 billion less than in the scenario where the system starts in 2027.

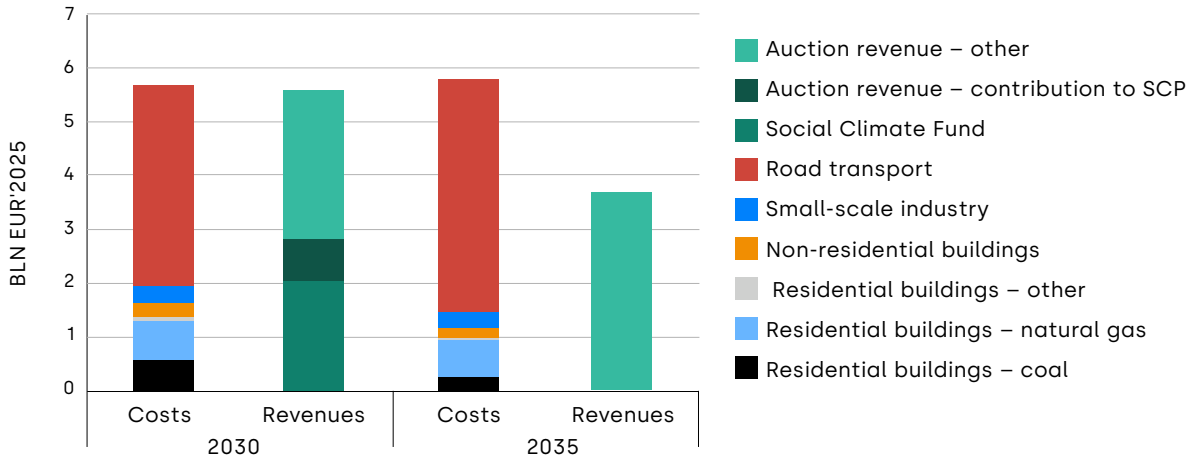
Figure 10. As a result of the delay of ETS2 until 2028, Poland will have approximately PLN 20 billion less in revenue from the system available by 2032.



Source: own analysis based on data from the Veyt forecast, European Commission data and own assumptions.

A comparison of the estimated ETS2 revenues raised by Poland with the costs incurred by Polish entities under the scheme (see Section 2.1) indicates that these figures will be comparable during the period of the SCF's functioning (see Figure 11). The additional transfer of funds to Poland under the Fund will compensate for the gap arising between domestic demand and supply of allowances, resulting from the fact that Poland plans to reduce emissions in the ETS2 sectors at a slower rate than the decline in the total number of allowances in the system. This situation will reverse after 2032: should the redistribution of ETS2 revenues among Member States cease, government revenues from the system will be approximately one-third lower than the costs incurred by Polish businesses and households as early as 2035. What is important, even in this scenario, is that the ETS2 revenues available to the government will still be higher than the costs incurred in the buildings sector and by households. Under ETS2, a net transfer to the buildings sector and households (investment support and safeguards exceeding the costs) financed by fees imposed on the transport sector and businesses will therefore still be possible.

Figure 11. Without the continuation of the SCF after 2032, there is a risk of a structural gap emerging between costs and revenues from ETS2 for Poland



Source: own analysis based on data from the Veyt forecast, European Commission data and our own assumptions.

3.2. Options for spending ETS2 revenues

As indicated in Chapter 3.1, the estimated total of ETS2 revenues available to the Polish government outside the Social Climate Plan for the years 2028–2030 amounts to PLN 60 billion. Poland has considerable flexibility in the use of these funds. It may allocate them both to measures already provided for in the Social Climate Plan (e.g. increase funding for the renovation of buildings belonging to people facing energy poverty or offer additional safeguards), as well as finance measures targeting groups not covered by the SCP. Importantly, the type of intervention is not limited to the catalogue of measures that can be implemented under the SCP. In addition to investment subsidies and direct income support, other forms of intervention are also possible, such as reducing electricity taxes to support the electrification of transport and heating.

In this section of the report, we present an illustrative overview of possible measures for individual sectors and groups and set these out against the total direct ETS2 revenues available to the Polish government (PLN 60 billion). It should be emphasised that these interventions complement the measures envisaged in the SCP and do not require the use of the revenues set aside for the implementation of the SCP (PLN 64 billion).

In the case of the transport sector, domestic ETS2 revenues are sufficient to finance large-scale investments in public transport (hundreds of trains, thousands of electric buses, on-demand vehicles and railway stations, tens of thousands of bus stops), and they also create fiscal space to streamline tax relief in this area. These funds could also be used to support the mass electrification of passenger cars – involving hundreds of thousands of vehicles – through both purchase subsidies and social leasing schemes. The table below presents an overview of the estimated costs of the interventions and their scale relative to the available total of ETS2 revenues (for illustrative purposes, we assume an allocation of 50% of the total for the transport sector).

Table 1. Comparison of the costs of interventions in the transport sector financed with the half of the ETS2 revenues available until 2032 (excluding the revenues covered by the SCP)

Intervention	Unit cost	Result using 50% of projected ETS2 revenues up to 2032 – units / budget multiples
Electric bus	PLN 3.4 million[25]	8,700 buses
Bus stop	PLN 337,000–672,000	59,000 stops
Zero-emission vehicle – on-demand transport	PLN 0.45–3.9 million	13,700 vehicles
Fast electric chargers	PLN 4.5 million	6,500 chargers
Regional rolling stock – EMUs	PLN 23–33 million	1,000 units of rolling stock
Railway station	PLN 5.6 million	5,200 stations
Streamlining of public transport tickets price to 50% and 100%	PLN 144 million[26]	200 times the budget
Maximum support for individuals under the NaszEauto scheme (maximum net price of the vehicle: PLN 225,000)	PLN 40,000[27]	740,000 vehicles
Budget for the 2025 intake of the French social leasing programme (subsidies for up to 50,000 electric vehicles)	PLN 1.6 billion[28]	19 times the budget
6-year social leasing at EUR 130–160 per month for an electric car worth EUR 25,000	PLN 34,000[29]	880,000 vehicles

Source: own calculations.

25 Unless otherwise stated – unit cost based on the draft Social Climate Plan of June 2025.

26 Wolański M., Czerliński M., Pinkosz M., (2025), *A Concept for an Integrated Discount Scheme for Public Transport*, Observatory of Urban and Regional Policy, Institute for Urban and Regional Development: Warsaw–Kraków [available only in Polish].

27 More information on the NaszEauto programme is available in Polish on the NFOŚiGW website.

28 More on the French programme on the Electrive portal.

29 *T&E (2025), Social leasing: how low-price EVs can help transport vulnerable drivers Assessment of the potential of social leasing schemes in the EU's five main markets.*

In the buildings sector, the allocation of national ETS2 revenues could make a tangible contribution to the renovation of single-family homes, although there is a clear trade-off between the level of support and the number of households that can benefit from it. If the focus is on offering a basic level of renovation funding for single-family homes, half of the ETS2 revenues would be sufficient to support half a million households over five years. By comparison, the same amount allocated to the construction of new, energy-efficient social housing would increase the supply of such dwellings by just under 60,000. ETS2 revenues could also finance a large-scale energy advisory programme to complement investment support for building renovation.

Table 2. Comparison of intervention costs in the buildings sector using half of the ETS2 revenues available until 2032 (excluding revenues covered by the SCP)

Intervention		Unit cost[30]	Result using 50% of projected ETS2 revenues by 2032 – units
Support for the renovation of a single-family house (*deep scenario* I from the NBRP project)	40% grant	PLN 60,000	475,000 buildings
	70% grant	PLN 110,000	270,000 buildings
	100% grant	PLN 160,000	190,000 buildings
Cost of an energy-efficient flat under the Social and Municipal Housing Programme		516,000 PLN	58,000 municipal and social housing units
Employment of one energy advisor for a period of 7 years		PLN 1.5 million	20,000 advisors

Source: own calculations.

Domestic ETS2 revenues could also be directed towards supporting pilot investments in the decarbonisation of industrial plants that have so far remained outside the EU ETS[31] or used to provide (additional to the SCP) support for the energy-poor – in both cases, the cost of the intervention will amount to a fraction of the total sum at the Polish government's disposal.

Table 3. Comparison of the costs of other types of intervention with the ETS2 revenues available until 2032 (excluding funds covered by the SCP)

Intervention	Unit cost	Ratio to projected ETS2 revenues up to 2032
Clean heat in industry – Innovation Fund auction budget in 2025[32]	PLN 4.2 billion	14 times the budget
Support of PLN 1,000 per year for energy-poor households – for 5 years	PLN 9.4 billion[33]	6 times the budget
Reduction of VAT from 23% to 5% – electricity – for 5 years	PLN 25 billion[34]	2.4 times the budget
Reduction in VAT from 23% to 8% – on coal and gas used for heating – for 5 years	PLN 22 billion	2.7 times the budget
Reduction in VAT from 23% to 8% – all fossil fuels – for 5 years	PLN 49 billion	1.2 times the budget

Source: own calculations.

30 Unit costs mainly based on the draft Social Climate Plan of June 2025.

31 Cf. Janik, K., Swoczyna, B. (2025); *Production under pressure #2. Financial aspects of the electrification of industrial processing in Poland*, Warsaw, Poland: Reform Institute.

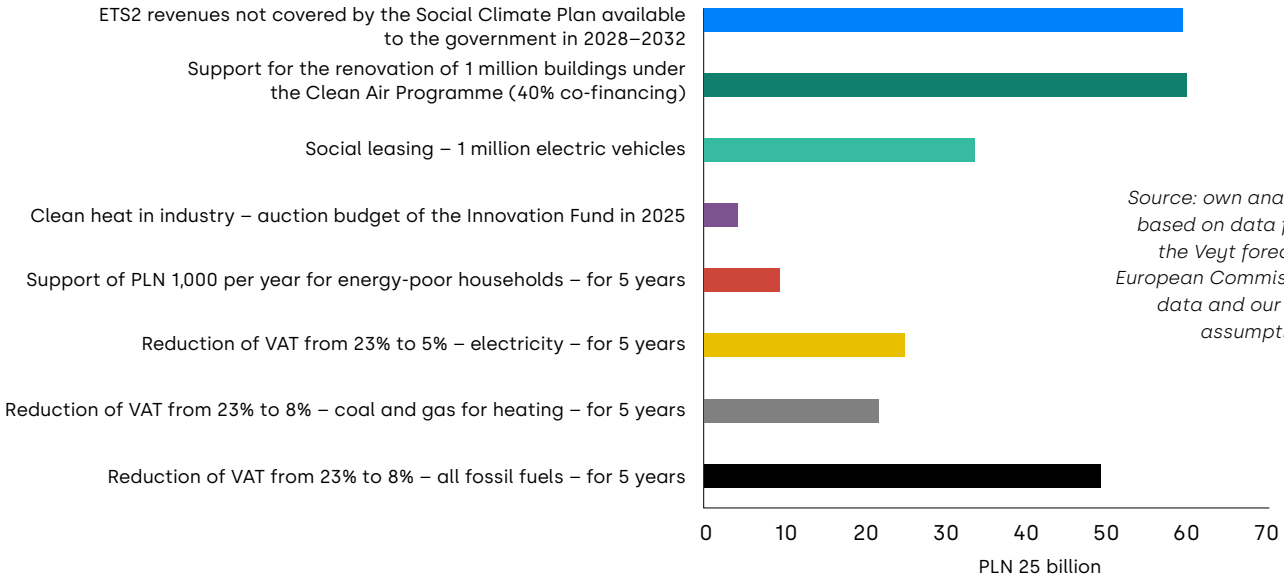
32 See further information on the European Commission's website.

33 Number of households whose income falls below the social minimum after paying energy bills, according to draft NCEPthe Polish updated NECP.

34 Our own estimates of the costs of reducing VAT, based on data from the Household Budget Survey.

Greater flexibility in the use of the ETS2 revenues also makes it possible to offset the costs of fiscal instruments, which can help reduce household bills. For example, after financing the VAT reduction on electricity from this source, the Polish government will still have almost 60% of the ETS2 revenues available for other purposes. Even under the scenario of a broad VAT reduction on all fossil fuels, the government will still be able to finance its own contribution to the SCP and other measures to the level of approximately PLN 10 billion. This is due to the targeted nature of the VAT reduction: it does not affect business costs, and its main beneficiaries are households.

Figure 12. ETS2 revenues not covered by Social Climate Plan for the period 2028–2032 enable the financing of large-scale investments and mitigation measures



Source: own analysis based on data from the Veyt forecast, European Commission data and our own assumptions.

As the above overview indicates, following the implementation of ETS2, the Polish government will have a wide range of options at its disposal for supporting investment and providing safeguards for citizens and businesses. At the same time, however, it will have to make strategic choices regarding priority areas for intervention, as the revenues from the system will not be sufficient to implement all measures simultaneously – even with the additional transfer of funds under the Social Climate Plan.

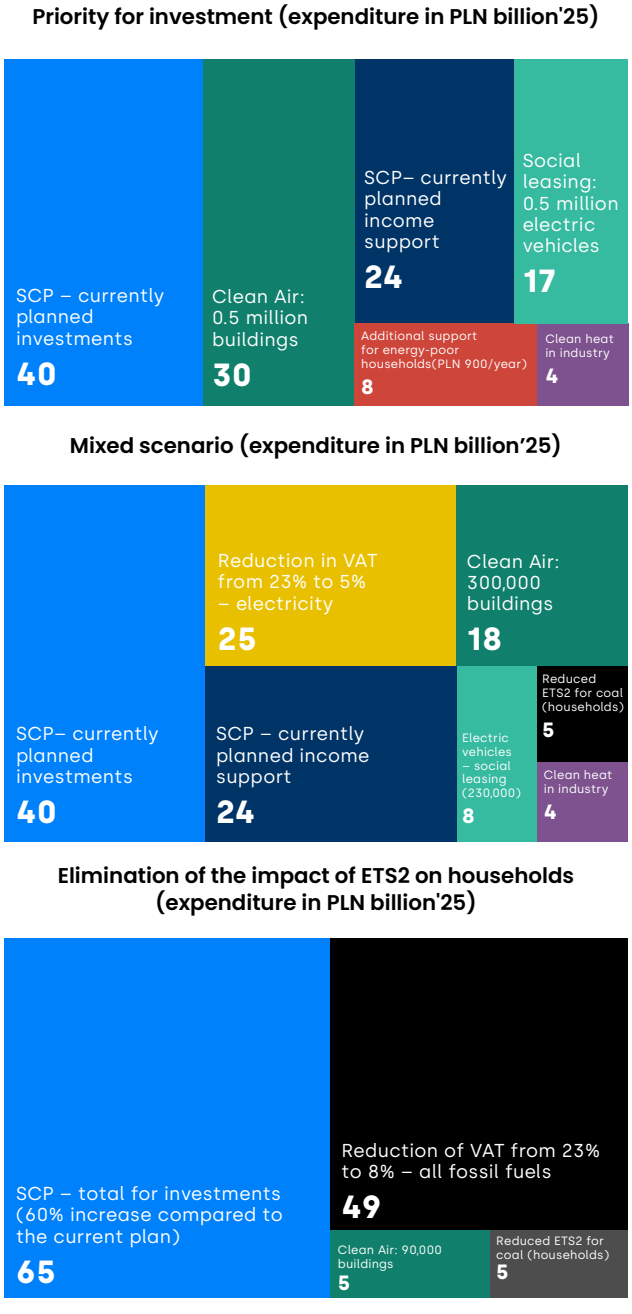
When deciding how to allocate the national ETS2 revenues, consideration should be given to the complementarity of these interventions with measures under the SCP, whilst ensuring the internal consistency of the overall set of actions taken. This is illustrated by the three example spending scenarios shown in Figure 13:

- By prioritising **investment support,** the government, in addition to the measures envisaged in the SCP, could also support half a million households in the transition to zero-emission heating and mobility, whilst offering additional support for pilot investments in industry. The lack of available funds for large-scale fiscal interventions to reduce household energy bills could be partially offset by an additional support fund for households struggling with energy poverty.
- By opting to provide **maximum protection for households** against rising fossil fuel bills through a reduction in VAT and lower ETS2 on coal (see Chapter 4),

the government could simultaneously discontinue direct income support under the SCP, which would increase the level of funds for investment support for the most vulnerable households.

- By **focusing on a VAT cut for electricity,** the government can still maintain both the investment component and income support under the SCP, whilst providing targeted protection for households using coal and additional support for several hundred thousand households transitioning to zero-emission heating and mobility.

Figure 13. Illustrative scenarios for spending ETS2 revenues indicate a wide range of options for public policy design



Source: own analysis based on data from the Veyt forecast, European Commission data and own assumptions.

4. Possible future changes to ETS2

In this chapter, we outline the directions of possible further changes to ETS2 at EU level. These include both scenarios emerging in the public debate and proposals put forward by the Reform Institute. However, further changes are not a foregone conclusion, and the regulations governing the system may be maintained in their current form. The one-year postponement of the system's entry into force and changes to the market stability mechanism represent a significant step towards alleviating concerns among some Member States.

Table 4. Proposed changes to ETS2 emerging in the public debate

Change	Description	Comment
Early auctions (front-loading)	The European Commission has already announced the early launch of auctions. The aim is to increase revenue from ETS2 during the initial phase of the system's functioning. Member States are to allocate the revenues to investments in the decarbonisation of buildings and transport[35] . Earlier auctions mean fewer allowances on the market in subsequent years[36].	▪ Mechanisms enabling accelerated investment in Member States from the early stages of the ETS2 implementation should be supported. Faster modernisation of buildings and transport will reduce future ETS2 costs and accelerate improvements in citizens' quality of life[37].
Postponing the start of ETS2 until 2030	The one-year postponement of the ETS2 implementation has heightened expectations in several European capitals that there will be further delays. According to media reports[38] Hungary, the Czech Republic and Slovakia have submitted a request to the European Commission to postpone the entry into force of ETS2 until "at least 2030". This proposal is also publicly supported by representatives of the Polish government[39]. A similar position was presented in an October publication by the National Centre for Emissions Balancing and Management (KOBiZE). The proposal envisages maintaining 2026 as the launch date for the SCF[40], which would be financed from a loan facility.	▪ The one-year postponement was provided for in the original legislation. Any further delay would increase regulatory uncertainty. ▪ The proposal may be difficult to accept, particularly for countries reliant on stable budgetary revenue from taxation of the transport and buildings sectors.

35 The announcement of the proposed changes to ETS2 is available on the EC website.

36 The concept of early auctions and their implications (as well as other interventions) is described in the BloombergNEF publication *'EU ETS II Pricing Scenarios: Balancing Cuts and Costs'.*

37 Arguments in favour of a loan facility for early investments are outlined in the T&E report *(2025). How to turn ETS2 implementation into a success.*

38 December leaks available on the Contexte portal.

39 For example, in an interview for the Termomodernizacja.pl portal.

40 Marek Antosiewicz, Robert Jeszke, Maciej Pyrka, Sebastian Lizak (2025), *A Fairer ETS2: Policy options ensuring climate ambition with social balance*, KOBiZE, Warsaw.

Price corridor	This tool ensures price predictability within the system by setting a minimum and maximum price for the coming years of the system's functioning. The caps the risk of sudden cost increases for consumers. The minimum price, in turn, ensures the predictability of budget revenues at an appropriate level[41].	▪ The introduction of a price corridor requires unanimity in the EU Council, as the part of the mechanism concerning the minimum price constitutes a tax-like structure. ▪ Unanimous agreement on the level of the maximum and minimum prices by all Member States may prove difficult.
"Soft price corridor"	A proposal put forward by KOBiZE. The mechanism does not involve a rigid price cap. Instead, it provides for the continuous and unlimited sale of allowances above a set threshold. Options for ensuring an unlimited supply of allowances include the use of allowances from the MSR reserve within the EU ETS (including previously cancelled allowances).	▪ The effect would be similar to that of a standard price corridor. ▪ The release of an unlimited supply of additional allowances from the MSR reserve into the EU ETS system risks undermining confidence in the entire market.
'Hidden' national price corridor (shadow price)	Member States may use national charges and taxes to shape the level of costs arising from the implementation of ETS2. This means, for example, that they can mitigate excessive price rises deemed too high by policymakers[42]. Tax adjustments may also limit excessive price falls, thereby limiting the reduction in ETS2 budget revenues in countries that regard revenue from this source as crucial.	▪ The scope for adjustment depends on the level of domestic charges. If these are low or non-existent (e.g. excise duty on coal sold to domestic consumers), this tool is ineffective.
Social allowance surrender rates	KOBiZE proposes[43] adjusting obligations regarding the surrender of emission allowances. The solution would be similar to the functioning of ESR targets and would take account of the varying levels of prosperity among countries. At the same time, emitters in the lowest-income countries would surrender 0.8 allowances per tonne of CO_2. In the highest-income countries, emitters would surrender 1.4 allowances per tonne of CO_2.	▪ Introducing this solution across the EU would mean moving away from a uniform carbon price. This could lead to systemic distortions and requires a thorough impact assessment. ▪ Limited application, e.g. in selected Member States, reduces this risk.
Regular publication of ETS2 forecasts	This tool is mentioned in the Czech unofficial position paper (discussed in Chapter 1.3[44]). It is intended to increase market predictability. Official forecasts would shape price expectations within the new system. The forecasts should cover a wide range of data from sectors covered by ETS2. This would enable market participants to better understand the scale of demand for allowances.	▪ The effectiveness of this tool is heavily dependent on the quality of data in Member States. It also requires cooperation between national analytical centres. ▪ A cheap and relatively uncontroversial solution, though its impact on prices may be limited.
Increasing the SCF budget and/or extending it beyond 2032	The budget for the Social Climate Fund amounts to a maximum of EUR 65 billion for the period 2026–2032 (see Chapter 1.2. for more on the SCF). Investment needs are substantial. Member States may also face difficulties in absorbing the funds. This may argue in favour of prolonging the SCF's functioning or increasing its budget in the future, for example as part of the SCF's successor after 2032. Increased funding for investments in sectors covered by ETS2 could reduce resistance to the system and accelerate decarbonisation in less affluent EU countries.	▪ Completion of National Recovery Plans and the EU's more restrictive budgetary outlook (the Multiannual Financial Framework for 2028–2034) may limit the availability of funds for redistributive purposes. In this context, it is worth considering the continuation of the SCF beyond 2032.

Source: Own analysis.

41 Nguyen, P.-V. (2025) *Delivering the ETS2: Do or die time for the European Green Deal?*, Institut Jacques Delors.

42 *T&E (2025). How to turn ETS2 implementation into a success.*

43 Marek Antosiewicz, Robert Jeszke, Maciej Pyrka, Sebastian Lizak (2025) *A Fairer ETS2: Policy options ensuring climate ambition with social balance*, KOBiZE, Warsaw;

44 The Czech non-paper is available here.

The overview of options presented in Table 4 indicates that the key area of concern for many Member States is the issue of uncontrolled, rapid increases in allowance prices within the system. The solutions implemented to date mitigate this problem indirectly by increasing supply from the MSR reserve, but do not provide a full guarantee of price stability. At the same time, proposals to introduce a price corridor face formal barriers arising from the need to reach a unanimous decision when setting the minimum level of allowance prices. At the same time, there is a lack of proposals at the European level addressing the specific situation of coal within ETS2 (high sensitivity of fuel prices to increases in allowance prices, the correlation between its use and energy poverty, and its low share of total emissions in the system). Taking the above into account, we present below two solutions addressing these gaps: 1) a hard price cap for the entire system and 2) a targeted reduction in ETS2 costs for coal.

Hard price cap

A hard price cap (a mechanism that imposes a maximum price for allowances on the market) offers a simpler alternative to the price corridor in ETS2. Unlike the price corridor, it does not include a minimum price for allowances and, as such, provides a one-sided safeguard against uncontrolled rises in allowance prices. Abandoning the lower limit of the price corridor likely resolves a formal issue: the mechanism then loses one of the characteristics of a tax and probably no longer requires unanimity when deciding on its form within EU negotiations. At the same time, moving away from a minimum price does not affect the key objective of the reform: unlike in the EU ETS, Member States have not raised substantial concerns about prices being too low in ETS2.

It is worth noting that the cap does not have to take the form of a single, top-down price. It can be defined by other indicators, such as the maximum ratio of ETS2 revenues to the European Union's GDP.

Even if the price cap were set well above current forecasts (see Figure 2 in Section 1.3), it would serve as a safeguard against sharp price rises (e.g. to 250 EUR/tCO_2). This would increase the predictability of the system and address Member States' concerns, complementing the ETS reform (see Section 1.3).

The cap could be implemented through:

- the release of an additional, unlimited supply of allowances once the cap is exceeded (in line with KOBiZE's proposal for a 'soft price corridor'); or
- a reform of the penalty system for failure to surrender allowances within the scheme. Currently, an entity that fails to surrender allowances on time must pay a financial penalty for this, whilst still being obliged to surrender the outstanding allowances. Waiving this second obligation would mean that the penalty for failing to surrender allowances would begin to serve a role analogous to substitute fees in Polish colour certificate schemes: it would set an effective hard cap on allowance prices, above which entities participating in ETS2 would prefer to pay the penalty rather than purchase the missing allowances on the market.

Regardless of how a hard price cap is implemented across the entire ETS2 system, it implies that the EU-wide emissions limit will be exceeded and that there is a risk of failing to achieve the climate target. For this reason, it is desirable to allocate the

revenue generated by additional allowances or financial penalties to investments that reduce emissions from ETS2 sectors, for example by channelling them into the national SCF pool.

Targeted reduction of ETS2 costs for coal

The heaviest burden resulting from ETS2 falls on low-income individuals living in uninsulated buildings and heating with coal. Therefore, temporary, targeted support for this group should be considered. Importantly, coal accounts for only around 2% of emissions in the EU's ETS2 sectors; consequently, preferential treatment for coal at the start of the system's implementation will have a limited impact on the system as a whole.

At the same time, for environmental reasons, emissions charges for coal should not be lower per unit of energy than those for natural gas. In practice, this means a maximum reduction in the burden on coal within the system of 41% of the market price of allowances[45] .

Below we present two possible solutions to mitigate the price shock for households using coal:

- the introduction of a substitute fee for the failure to surrender allowances for coal sellers at a level of at least 60% of the market price of allowances in ETS2 (a mechanism similar to that described above for a hard price cap),
- temporarily exempting coal sellers from the obligation to surrender allowances in the system in exchange for the introduction of an excise duty equivalent to 60% of the market price of allowances.

In both cases, Poland would cancel allowances from its allocation in proportion to its domestic emissions from coal excluded from ETS2. This would ensure that the emissions cap is maintained across the entire system, whilst providing the government with a fiscal incentive to reduce emissions due to the lost revenue from unsold allowances.

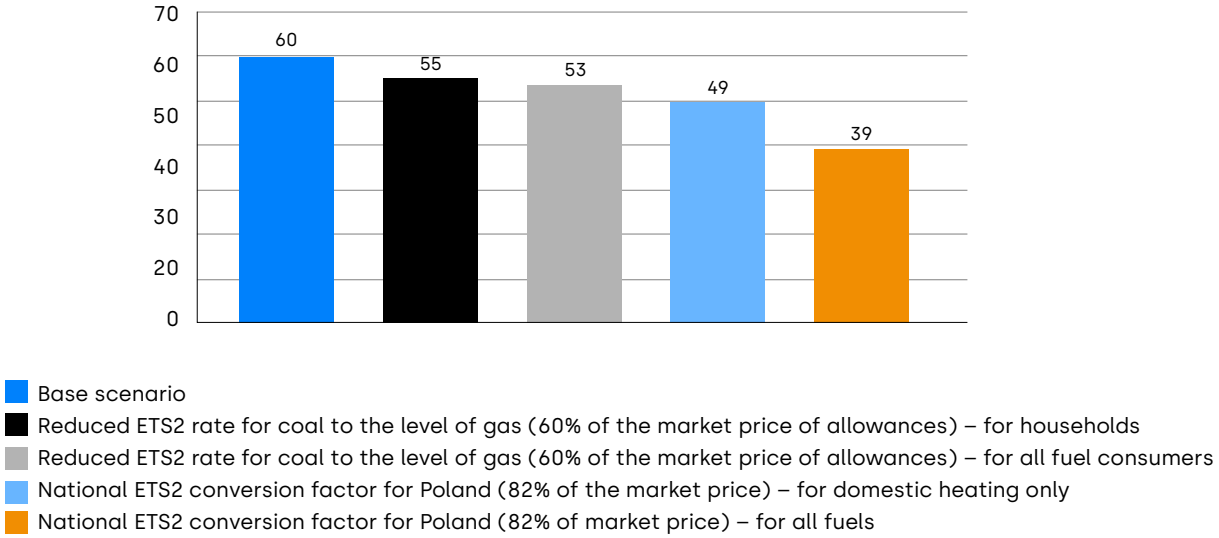
To improve the transparency of how funds are used, revenue from the substitution levy or excise duty could be channelled into the Modernisation Fund, the Social Climate Fund or a similar mechanism overseen by the European Commission, which would approve plans for their use to accelerate the phase-out of coal heating in Polish households.

Reducing ETS2 costs for coal-using households by 40% reduces the total of ETS2 revenues available to the Polish government in 2028–2032 by less than 10%, without affecting the funds allocated to the SCP. By comparison, applying a universal national ETS2 conversion factor for Poland that reduces the burden on all fossil fuels by 18% (in line with KOBiZE's proposal) would reduce the ETS2 reveneus available to the Polish government outside the SCP by approximately one-third.

45 Natural gas is approximately 41% lower in emissions than coal, calculated per unit of energy contained in the fuel.

Figure 14. Reducing the burden under ETS2 for selected fuels and consumers is possible without losing the majority of revenue from the system

ETS2 revenues not subject to the SCP available to the government in 2028–2032



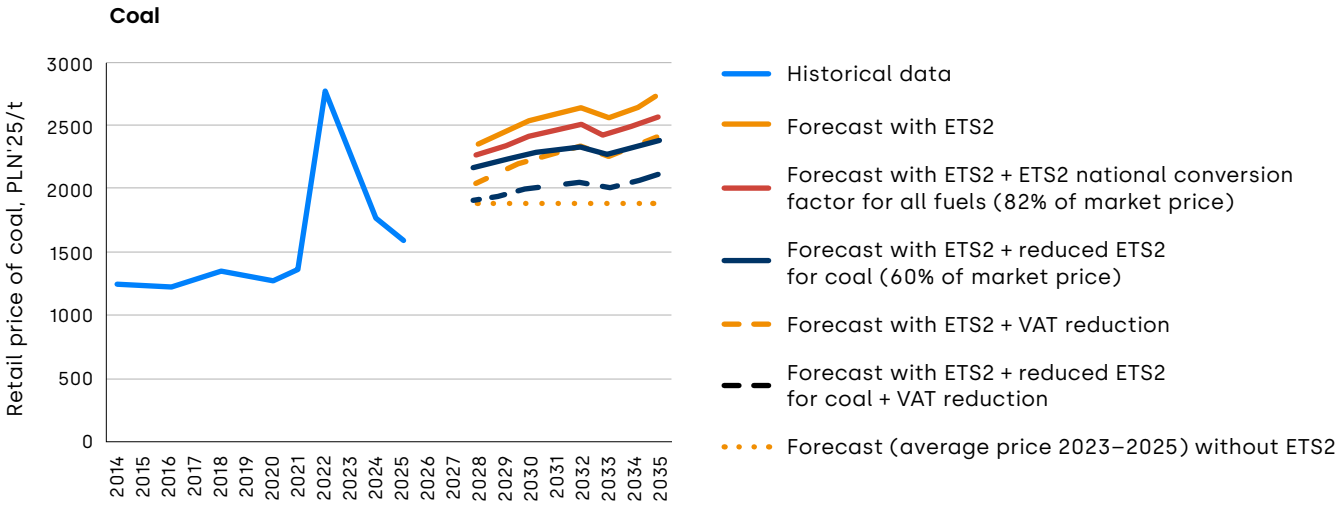
Preferential price for Poland for all fuels based on the KOBIZE coefficient, which is based on GDP per capita and national reduction targets under the ESR of 82%46 .

Source: own calculations.

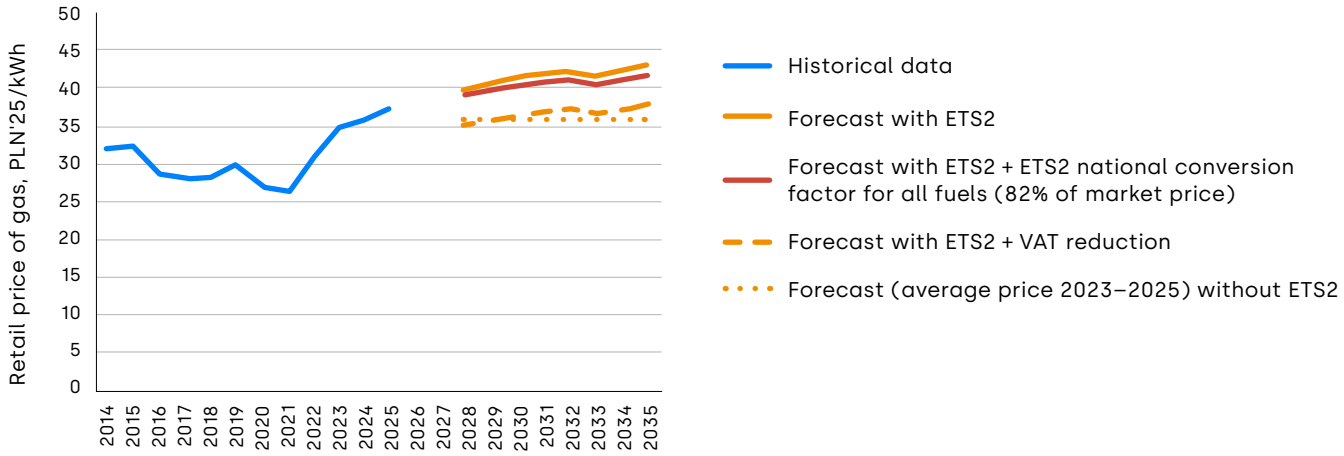
It is worth noting that changes to ETS2 leading to a cross-cutting reduction in costs for all fuels result in relatively small changes in costs for the groups most sensitive to the costs of intervention. For example, whilst a reduction in VAT on all fossil fuels from 23% to 8% will entail a fiscal cost approximately 2.5 times higher (cf. Figure 12 in Section 3.2) than the lost revenue from implementing the aforementioned KOBiZE proposal, this solution almost entirely offsets the effects of implementing ETS2 on natural gas and petrol purchased by households in the first years of the system's functioning.

46 Marek Antosiewicz, Robert Jeszke, Maciej Pyrka, Sebastian Lizak (2025) *A Fairer ETS2: Policy options ensuring climate ambition with social balance,* KOBiZE,Warsaw.

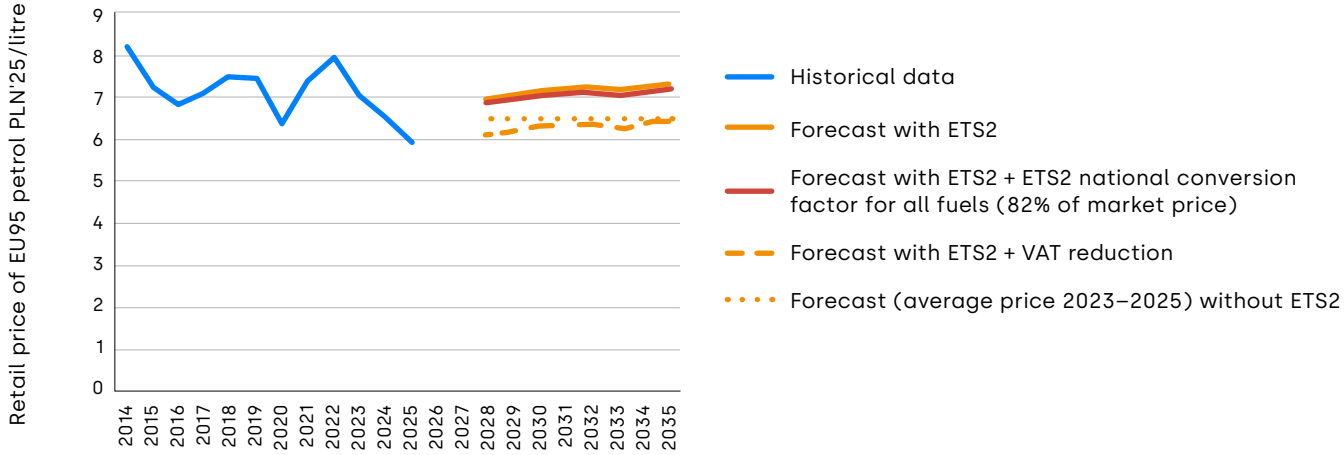
Figure 15. A blanket reduction in ETS2 allowance prices yields smaller benefits than a targeted reduction in the tax burden on coal or a reduction in VAT



Gas



Petrol



Source: own compilation.

5. Recommendations

5.1. Recommendations regarding the use of ETS2 revenues in Poland

Making use of the wide range of options in the spirit of a fair and ambitious transition

ETS2 revenues provide Member States with considerable flexibility regarding how they are spent. These funds can finance both decarbonisation investments – for example, in the buildings and transport sectors – and social initiatives. They can also serve as a national contribution to the Social Climate Plan.

By 2032, total ETS2 revenues in Poland are likely to exceed PLN 124 billion (around EUR 28 billion), of which PLN 60 billion (around EUR 14 billion) will consist of revenue from the sale of allowances that goes directly to the national government and remains outside the scope of the Social Climate Plan. Such a large scale justifies a particular need for a structured approach to their spending. At the same time, the range of potential uses for these funds presented in Chapter 3.2 shows that they can play a significant role in the country's cross-cutting economic transition. Revenues from ETS2 could be allocated to finance, amongst other things:

- investment in public transport (e.g. hundreds of trains, thousands of electric buses, on-demand vehicles, tens of thousands of bus stops);
- the renovation of single-family homes (for a basic level of renovation funding, half of the ETS2 revenues would be sufficient to support half a million households) and the construction of new, energy-efficient council flats;
- a large-scale energy advisory programme, complementing investment support for building renovations;
- pilot support for investments in the decarbonisation of industrial plants that have so far remained outside the EU ETS;
- direct support for the energy-poor households;
- reductions in household bills.

ETS2 revenues should be spent across multiple sectors to address the complex challenges and opportunities that Poland will face in the coming years. Funds should not be directed exclusively to a single sector or a single social group, so as to reflect the multidimensional effects of ETS2 implementation. They should support the transition in both the transport and buildings sectors. They should not support only the poorest, but also citizens with below-average incomes and micro-entrepreneurs, who are particularly vulnerable to the upcoming changes.

Transparent and strategic management of ETS2 revenues in dialogue with stakeholders

Regardless of the areas of support funded from ETS2 revenues, it is vital that these revenues are managed effectively and transparently. Experience to date[47] shows that the failure to earmark these funds for specific measures limits the transparency of the system. The ETS revenues in Poland are channelled into the national state budget. However, the reports submitted to the European Commission are often inconsistent with actual expenditure, as highlighted by the Supreme Audit Office[48]. Another issue is the lack of a strategy setting out spending priorities.

We therefore recommend the establishment of an Energy Transition Fund, financed by funds from the EU ETS and ETS2. The Fund should be based on best practices from abroad (e.g. the German KTF) and domestic institutional arrangements (including the National Fund for Environmental Protection and Water Management)[49] . A transparently managed Fund would help to increase public and business confidence in the state's proper and effective management of the revenues.

In parallel, a multi-year plan for spending ETS2 revenues should be developed. It should define investment priorities in the buildings and transport sectors, as well as the rules for supporting vulnerable groups. Each support instrument designed should have a clearly defined objective – consistent with a fair and ambitious transition – and assigned institutional responsibility for its implementation.

Such a document should be drawn up in consultation with a wide range of stakeholders – from local authorities and civil society to think tanks and the private sector.

Finalisation and adoption of the Social Climate Plan

The Polish government should urgently adopt the final version of the Social Climate Plan. This is a prerequisite for Poland's access to nearly PLN 50 billion (EUR 11,4 billion) in EU funds[50]. These funds are crucial for launching investments and safeguards that limit the additional costs associated with the implementation of ETS2 for the most vulnerable[51]. This funding can be utilised even before the system comes into force and could already be used to make Polish buildings and transport less dependent on fossil fuels.

Accelerating the phase-out of coal in households

The priority for public intervention in the buildings sector should be to phase out coal heating as quickly as possible. As we emphasise in Chapter 2.3, households in the lower half of the income distribution that use coal for heating are the most vulnerable to a sharp rise in costs associated with ETS2. It is precisely this group that should be given priority when designing investment support for the transition in the buildings sector.

In the coming years, the overarching objective of financial support funded from ETS2 revenues should be to implement the scenario for the rapid decarbonisation of buildings set out in Polish strategic documents, which will enable a reduction in ETS2 costs for this sector. If the objectives set out in the National Building Renovation Plan (NBRP) are met, ETS2 costs for Polish households resulting from coal heating should fall fourfold between 2028 and 2035. The key objective should be to mar-

47 Helak, M., Madej, D., Niewitała-Rej, M., Stefańczyk, A., Śniegocki, A., and Wojtyło, M. (2025), *The study on the use of EU ETS revenue for social justice and climate neutrality in the context of the Social Climate Fund and ETS2,* Warsaw, Poland: Reform Institute.

48 The Supreme Audit Office report on the management of funds from the sale of greenhouse gas emission allowances in Polish is available here.

49 More good practices in the Reform Institute's report.

50 Our comments to the SCPSCP: Wojtyło, M., (2025), *Social Climate Plan: an instrument of systemic change? Comments on the draft Plan,* Warsaw, Poland: Reform Institute.

51 More on the SCPSCP and SCPSCF Wojtyło, M., Augustowski, W., Lipiński, M., Stefańczyk, A., Śniegocki, A. and Wetmańska, Z. *(2025): Overcoming energy and transport. The Social and Climate Plan as an instrument systemic change*, Reform Institute: Warsaw.

ginalise this fuel in the building fuel mix by the mid-2030s and to cease its use for heating buildings by 2040 at the latest.

Accelerating plans for the decarbonisation of transport by 2040

Despite the priority objective of rapidly phasing out coal from building heating in the coming years, national policy towards sectors covered by ETS2 must not overlook the long-term challenges associated with the transformation of transport. Current plans to reduce this sector's dependence on fossil fuels are insufficient to ensure alignment with the pace of change in European road transport implied by climate targets and the rate of decline in allowance volumes within the ETS2. It is particularly important for Poland to prepare for a rapid transformation of mobility in the second half of the 2030s. This requires, among other things, systemic incentives for the development of public transport, investment in charging infrastructure for zero-emission cars and lorries, as well as the development of a legal framework for the effective integration of electrified vehicles into the energy system.

5.2. Recommendations at EU level

Increasing the predictability of ETS2 implementation

There is a need to increase the predictability of the ETS2 implementation. This will help mobilise private capital for investments in the transition away from fossil fuels in the sectors covered by the scheme. Therefore, the reforms to ETS2 agreed at the political level should be enshrined in the ETS Directive. We must also approach further delays in the system's implementation with caution: whilst postponing the start of ETS2 by one year was part of the original legislation, further delays will disproportionately increase uncertainty surrounding the instrument.

A constructive and realistic approach is to implement the system in 2028 with stronger safeguards against excessively high allowance prices.

Extending and increasing the availability of EU funds for the transition, including the continuation of the SCF beyond 2032

The challenges associated with energy and transport poverty will not be resolved by 2032. As the draft of the Polish SCP[52] shows, the scale of the needs is much greater. By 2032, the SCP will have funded the insulation of approximately 140,000 single-family homes. Even if half of the total of ETS2 revenues were used by 2032 to fully finance the comprehensive renovation of around 200,000 single-family homes occupied by energy-poor households (see Chapter 3.2), will not be sufficient to bring about a lasting change in the situation of this entire group or to achieve a complete shift away from coal heating. Additional national and EU funds are needed to extend investment support.

Therefore, alongside the mobilisation of public and private capital, efforts must be made within the EU to extend and increase support for social objectives. Funding for this should be included in the new Multiannual Financial Framework for 2028–2034.

It is also essential to continue the Social Climate Fund beyond 2032. This is crucial in light of the need to increase public acceptance of ETS2 and the fact that funding sources under the National Recovery Plan and the Just Transition Fund are coming to an end. The total of funds available under ETS2 will also be smaller following its

52 The latest version of the SCPSCP for Poland, dated June 2025, is available on the European Funds website.

one-year postponement and in the scenario where the proposals for early auctions are implemented (see Section 3.1).

Targeted reduction in the burden on coal

To ensure a fair and effective transition for households that use hard coal for heating, consideration should be given to establishing a legal framework at EU level that would allow for a temporary reduction in the ETS2 burden on this fuel. However, these cannot be lower than those for natural gas (we discuss this in Chapter 4). Such preferential treatment should be temporary and linked to a specific national investment commitment regarding the replacement of heat sources and general renovation rate.

Establishment of a hard price cap

Another way to increase support for the implementation of ETS2 among Member States is to set a firm price cap (maximum price level) for allowances at EU level. Such limit would alleviate the concerns of some Member States regarding a sharp rise in the costs of the system's functioning for citizens and businesses and would facilitate the timely implementation of ETS2. At the same time, this solution could be simpler to implement formally than a full price corridor, which requires the unanimous establishment of a minimum price within the system. We discuss this proposal in more detail in Chapter 4. ■

Annex. Methodological notes

Assumptions regarding greenhouse gas emission levels for the purpose of estimating ETS2 costs for Poland

The estimate of the total ETS2 costs for the Polish economy is based on government projections of greenhouse gas emissions prepared as part of the update to the National Energy and Climate Plan (NECP) of December 2025, and on available data from the National Building Renovation Plan (NBRP), the preliminary version of which was presented in early 2025 as part of pre-consultations. In the case of the NECP, the WAM pathway (accelerated transition scenario) was used, whilst for the NBRP, the operational scenario for the transition in the buildings sector was employed.

Determining the supply of allowances in ETS2

The annual level of allowance supply is influenced not only by the emissions cap, but also by the frontloading mechanism (accelerated supply of allowances relative to the emissions cap) and the functioning of the Market Stability Reserve (MSR) mechanism (see section 1.1).

A frontloading mechanism will be introduced in the very first year of the ETS2 scheme to ensure the system runs smoothly. This means that 130% of the annual emission cap will be put up for sale. The surplus allowances exceeding 100% of the cap will be deducted in subsequent years of the ETS2 scheme.

- if the scheme were to start in 2027, this would be the years 2029–2031;
- if the scheme starts in 2028, these will be the years 2030–2032.

Supply is also influenced by the functioning of the MSR, which allows the number of allowances to be reduced or increased depending on the price situation.

To calculate Poland's ETS2 revenues from, a scenario for the functioning of the MSR mechanisms was adopted in line with the Veyt forecast[53]:

- 33,333,333 allowances in 2029.
- 100,000,000 allowances per year in 2029–2032.

Calculation of ETS2 revenues available to the Member State

A Member State's annual revenue is determined at the level of the entire ETS2 system. First, the total number of allowances to be auctioned is determined on the basis of the cap on allowances in the system, the frontloading mechanism and the functioning of the MSR in a given year. In the next step, this pool is reduced by the allowances sold by the European Commission to replenish the Social Climate Fund for an amount predetermined in the ETS Directive (in accordance with Article

53 Veyt's estimates are presented in the presentation *Changes to the ETS2 framework. An impact assessment.*

30d)[54]. The remaining allowances are then distributed among Member States according to a top-down determined share, based on historical emissions in the sectors. For Poland, this share amounts to 8.1%[55].

A Member State's annual ETS2 revenues can therefore be calculated using the formula:

$$REV_{MS}=(SUPPLY_{year} \cdot PRICE_{year} - SCF_{year\ alloc.}) \cdot SHARE_{MS}$$

where:

REV_{MS} is the revenue of the Member State,

$SUPPLY_{year}$ is the total supply of allowances in the system in a given year,

$PRICE_{year}$ is the annual average price of allowances,

$SCF_{year\ alloc.}$ is the allocation of funds to the SCFSCF,

$SHARE_{MS}$ is the Member State's share of revenue.

Allowance prices $PRICE_{year}$ were adopted in accordance with the Veyt forecast (see Figure 2 in Section 1.3). An exchange rate of 4.23 was used when converting values from EUR to PLN.

Allocation to the Social Climate Fund

The ETS Directive provides for two scenarios for the allocation of funds to the SCFSCF depending on the system's start date:

- launch of ETS2 in 2027 – the SCF with a budget of EUR 65 billion,
- Launch of ETS2 in 2028 – the SCF with a budget of EUR 54.6 billion.

At the end of 2025, the Council of the EU and the European Parliament decided to postpone the launch of ETS2 until 2028. At the same time, the SCF budget was maintained at an unchanged level of EUR 65 billion; the exact scenario for annual contributions to the SCF has not yet been determined.

Therefore, for the purposes of this analysis, we have assumed that:

- in 2026 and 2027, the SCF will receive EUR 4 billion from EU ETS revenues (in accordance with current legislation),
- the shortfall of EUR 6.9 billion relative to the full SCF budget (EUR 65 billion) will be spread evenly over the years 2028–2032 and added to the baseline allocations envisaged for those years in the original scenario for the system's launch in 2027 (our own assumption).

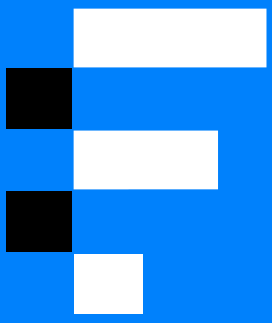
Table Z1. Scenarios for annual allocations to the SCF from ETS2 revenues [EUR billion]

	2026	2027	2028	2029	2030	2031	2032	total
Start in 2027 (old rules)	4.0	10.9	10.5	10.3	10.1	9.8	9.4	65.0
Start in 2028 (old rules)	4.0		11.4	10.3	10.1	9.8	9.0	54.6
Start in 2028 (new rules)	4.0	4.0	11.88	11.68	11.48	11.18	10.78	65.0

Source: own calculations.

54 The current text of the ETS Directive (2003/87/EC) available here.

55 See Graichen, J., Ludig, S. (2024), *Supply and demand in the ETS 2 Assessment of the new EU ETS for road transport, buildings and other sectors,* Oeko-Institut.



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