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**REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND
THE COUNCIL**

**on the operation of the European Climate Law and of the Effort Sharing Regulation,
and on the Emissions Trading System Directive in the context of the global stocktake**

1. Introduction

Regulation (EU) 2021/1119 (the European Climate Law)¹ establishes the framework for achieving economy-wide climate neutrality. It sets a legally binding target of net zero greenhouse gas emissions at the latest by 2050, and the intermediate target of reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. It also requires the Union institutions and Member States to ensure continuous progress on adaptation. The European Climate Law entered into force in July 2021.

Regulation (EU) 2018/842 (the Effort Sharing Regulation)² establishes for each Member State a national target for the reduction of greenhouse gas emissions by 2030, compared to 2005 levels, in the following sectors: domestic transport (excluding aviation), buildings, agriculture, small industry and waste. Initially adopted in 2018, the Effort Sharing Regulation was revised in 2023, as part of a package aimed at reducing the Union's net greenhouse gas emissions by 55% by 2030 (the "Fit for 55" package).

Directive 2003/87/EC (the Emission Trading System Directive)³ establishes the Union's emission trading system (ETS). The Union's ETS is a cornerstone of the Union's policy to combat climate change and continues to cap greenhouse gas emissions in the energy, manufacturing and aviation sectors, providing a price signal which incentivises innovation and emission abatement. The ETS Directive was reviewed in 2023 to align it with the new climate ambition of reducing the Union's net greenhouse gas emissions by 55% by 2030. The revised ETS Directive gradually extends carbon pricing to new sectors of the economy to support their emissions reductions, in particular road transport and heating fuels, and maritime transport.

This report responds to the obligations set for the Commission in Article 11 of the European Climate Law, Article 15(2) of the Effort Sharing Regulation and Article 30(3) of the Emissions Trading System Directive. These provisions require the Commission to submit a report to the European Parliament and to the Council on the operation of the European Climate Law and the Effort Sharing Regulation respectively, and as regards the Emissions Trading System Directive, to report to the European Parliament and to the Council in the context of each global stocktake agreed under the Paris Agreement.

In addition to this report, the Commission will also prepare a report on the operation of Regulation (EU) 2018/841 (the Land use, land use change and forestry (LULUCF) Regulation) in line with the obligations set out in that Regulation⁴. Furthermore, the Commission will prepare a report to the European Parliament and to the Council on Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action (the Governance Regulation)⁵ to inform on the operation of the Regulation and its contribution to the Energy Union and the goals of the Paris Agreement.

The first global stocktake under the Paris Agreement was concluded at the United Nations Climate Change Conference at the end of 2023 (COP28). The global stocktake found that parties are putting increasingly effective climate policies in place, but that urgent additional action is needed to put the world fully on track for achieving the goals of the Paris Agreement. Parties agreed that limiting global warming to 1.5 °C requires deep, rapid and sustained reductions in global greenhouse gas emissions by

¹ Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality ('European Climate Law'), OJ L 243, 9.7.2021, p. 1.

² Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement, OJ L 156, 19.6.2018, p. 26.

³ Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a system for greenhouse gas emission allowance trading within the Union, OJ L 275, 25.10.2003, p. 32.

⁴ Regulation (EU) 2018/841 of the European Parliament and of the Council of 30 May 2018 on the inclusion of greenhouse gas emissions and removals from land use, land use change and forestry in the 2030 climate and energy framework, OJ L 156, 19.6.2018, p. 1, Article 17(2).

⁵ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, OJ L 328, 21.12.2018, Article 45.

43% by 2030, and by 60% by 2035 compared to 2019 levels and reaching net zero CO₂ emissions globally by 2050. The global stocktake highlighted that the fossil fuel era should draw to an end, recognising the need for all to transition away from fossil fuels. The agreement also calls on the parties to triple global renewable energy capacity and to double the rate of energy efficiency improvements by 2030, to accelerate efforts globally towards net zero emission energy systems, making use of zero- and low-carbon fuels well before or by around mid-century. Furthermore, it underlines the importance of a just transition and welcomes the decision on a Just Transition Work Program. It also calls for the acceleration of efforts to phase down unabated coal, emissions from road transport, tackling methane and other non-CO₂ emissions this decade, and phasing out as soon as possible inefficient fossil fuel subsidies that do not address energy poverty or vulnerable groups. This requires a shift in investment patterns across the globe to ensure finance flows are consistent with low emission and climate resilient development pathways.

2. Operation of the European Climate Law

Towards climate neutrality

The Commission assessed the collective progress made by all Member States towards the achievement of the climate-neutrality objective and the consistency of national measures with the climate-neutrality objective, as required under the European Climate Law, in its Climate Action Progress Report 2023⁶. The first European Climate Law assessment was undertaken together with the assessment of progress towards climate targets provided for under the Regulation on the Governance of the Energy Union and Climate Action. Although the EU greenhouse gas emissions continue to fall and there are encouraging signs of action on the ground, the Commission's assessment is that there is need to significantly step up implementation efforts and accelerate emissions reduction to stay on track to reach the 2030 target and climate neutrality by 2050. Action is most needed in areas which still require significant reductions in emissions (e.g. buildings, transport), where progress is slow (e.g. agriculture), or where, in recent years, there has been a deteriorating trend, as is the case for the carbon sink (e.g. land use, land-use change, and forestry). Member States must also accelerate action to end fossil fuel subsidies⁷, also confirmed in the Commission's analysis of the draft updated national energy and climate plans⁸. Based on the Climate Law assessment, the Commission issued recommendations to Member States in December 2023.⁹ The next step is for Member States to notify the Commission on how they intend to take due account of the recommendations.

The Commission also reviewed the consistency of Union measures with the climate-neutrality objective, in the Climate Action Progress Report 2023. The "Fit for 55" package sets the Union on a path to reach its climate targets in a fair, cost-effective, and competitive way. With most of the key proposals of the "Fit for 55" package adopted by co-legislators¹⁰, Union policies are now aligned with the updated 2030 target to reduce net greenhouse gas (GHG) emissions by at least 55% set in the European Climate Law, but there is scope to further improve the consistency of Union policies with climate objectives. In 2022 and 2023, the Commission made additional proposals contributing towards the achievement of the Union's climate targets¹¹. As stated in the Climate Action Progress Report,

⁶ EU Climate Action Progress Report 2023, COM(2023) 653.

⁷ 2023 Report on Energy Subsidies in the EU, annexed to the 2023 State of the Energy Union Report, COM(2023) 651.

⁸ EU wide assessment of the draft updated National Energy and Climate Plans, An important step towards the more ambitious 2030 energy and climate objectives under the European Green Deal and RePowerEU, COM(2023) 796.

⁹ In accordance with Article 7(3) of the European Climate Law.

¹⁰ The legislative procedure is still ongoing for the proposed revised energy taxation directive.

¹¹ See chapter 2 of the technical information accompanying the 2023 Climate Action Progress Report (COM(2023) 653) for an overview of recently adopted policy contributing to the alignment of EU level policies with climate objectives.

despite progress on green finance from private sources, significant additional investment is needed to finance the green transition. This needs action, in particular to redirect finance to enable the transition of significantly harmful activities and sectors towards more sustainable economic models.

The European Scientific Advisory Board on Climate Change adopted a report in which it assesses progress and policy consistency¹², as further explained below.

The European Climate Law provides for an intermediate target to be proposed by the Commission at the latest six months after the global stocktake under the Paris Agreement. On 6 February 2024, the Commission published a Communication on the Union's climate target for 2040¹³, setting a path from the already-agreed intermediate 2030 target to climate neutrality by 2050. In line with the scientific advice by the European Scientific Advisory Board on Climate Change¹⁴ and based on a detailed Impact Assessment, the Communication presents a 90% net GHG emission reduction compared to 1990 levels as the recommended target for 2040. This target corresponds to an overall greenhouse gas emissions budget for the EU that is in line with the provisions of the European Climate Law to present a projected indicative Union greenhouse gas budget for the 2030-2050 period, defined as the indicative total volume of net greenhouse gas emissions that are expected to be emitted in that period without putting at risk the Union's commitments under the Paris Agreement. Achieving the target will require a number of enabling conditions, as set out in the Communication. The Communication launches the political debate and informs the preparation of the post-2030 framework. It is the start of a dialogue and extensive outreach on the right pathway to 2040 and climate neutrality by 2050. This will inform the next Commission in view of making the legislative proposal to include the 2040 target in the European Climate Law and designing the appropriate post-2030 framework.

The Commission also adopted a report on the projected indicative Union greenhouse gas budget for the 2030-2050 period¹⁵, as required by Article 4(4) of the European Climate Law.

Adaptation to climate change

The Commission assessed the collective progress made by all Member States on adaptation, the consistency of national measures with ensuring progress on adaptation, and the consistency of Union measures with ensuring progress on adaptation, in the Climate Action Progress Report 2023 and in a separate Staff Working Document on national progress with implementing adaptation¹⁶. The Union has made broad progress on adaptation to climate change, in particular through the ongoing implementation of the EU Adaptation Strategy¹⁷. However, progress has been uneven across areas. The assessment of progress on adaptation at the national level shows that Member States need to take significantly more action to adapt to climate change – for instance, on governance, funding, risk assessments, nature-based solutions, as well as monitoring, reporting and evaluation in order to reduce their social and economic vulnerabilities to the intensifying climate-related risks. Based on the assessment, the Commission issued recommendations to Member States in December 2023. Member States are to follow up on the

¹² European Scientific Advisory Board on Climate Change, Towards EU climate neutrality, Progress, policy gaps and opportunities, Assessment Report 2024, DOI: 10.2800/216446.

¹³ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Securing our future, Europe's 2040 climate target and path to climate neutrality by 2050 building a sustainable, just and prosperous society, COM(2024) 63.

¹⁴ European Scientific Advisory Board on Climate Change, Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030-2050. DOI: 10.2800/609405.

¹⁵ SWD (2024) 63, Impact Assessment Report, Annex 14: GHG budget.

¹⁶ Commission Staff Working Document: Assessment of progress on climate adaptation in the individual Member States according to the European Climate Law, SWD (2023) 932.

¹⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions, Forging a climate-resilient Europe - the new EU Strategy on Adaptation to Climate Change, COM(2021) 82.

recommendations¹⁸ and as a first step, to notify the Commission on how they intend to take due account of the recommendations.

Furthermore, the 12 March 2024 Commission Communication on managing climate risks – protecting people and prosperity¹⁹ as supported by the European Climate Risk Assessment²⁰ by the European Environment Agency, sets out the key steps to ensure that despite the worsening climate risks, citizens and businesses can rely on the EU and Member States to maintain societal functions and access to basic services. It seeks to clarify the responsibility for acting on the difficult choices ahead, informed by the best evidence. It shows how the EU can effectively get ahead of climate impacts in the coming years and how action on resilience makes achieving other policy objectives cheaper and easier.

Additionally, and as put forward by the EU Adaptation Strategy, the Commission launched in March 2021 the European Climate and Health Observatory. It is a unique interdisciplinary partnership which supports knowledge-sharing, provides access to relevant information and tools, and provides training and capacity-building in the fields of climate and health. Its actions address the European Parliament call to address climate related threats to public health²¹, the objectives and commitments formulated in the Declaration of the Seventh Ministerial Conference on Environment and Health²², and the COP28 UAE Declaration on climate and health, which the Commission endorsed on behalf of the EU²³.

Good progress has been made in implementing the EU Mission on Adaptation to Climate Change²⁴, designed to accelerate innovative adaptation action at local and regional levels. Over 300 regions and communities, covering some 40% of the EU, have committed to work together to accelerate transformation to climate resilience by signing the Mission Charter. The Mission Implementation Platform²⁵, operational since Spring 2023, is disseminating knowledge on climate adaptation and providing a technical support facility whereas the Adaptation Community of Practice offers multiple capacity building and networking opportunities. The first Horizon Europe Mission funded projects began in January 2023, helping regions and local authorities develop climate risk and vulnerability assessments and demonstrating transformative adaptation solutions.

In September 2021, the Commission adopted climate proofing guidance²⁶. This guidance supports the mainstreaming of climate considerations in future investment and development of infrastructure projects. The guidance helps investors to make informed decisions on projects deemed compatible with the Paris Agreement and the Union's climate objectives.

In July 2023, the Commission adopted 'Guidelines on Member States' adaptation strategies and plans'²⁷ to assist Member States in updating and implementing comprehensive national adaptation strategies, plans and policies in line with the European Climate Law and the EU Adaptation Strategy. The Commission seeks to support Member States to adopt a whole-of-government approach to climate adaptation policymaking by way of multilevel coordination and mainstreaming. The guidelines call for

¹⁸ In accordance with Article 7(3) of the European Climate Law.

¹⁹ COM(2024) 91

²⁰ EEA (2024), European Climate Risk Assessment, ISSN 1977-8449.

<https://www.eea.europa.eu/publications/european-climate-risk-assessment>

²¹ European Parliament resolution of 15 September 2022 on the consequences of drought, fire, and other extreme weather phenomena: increasing the EU's efforts to fight climate change (2022/2829(RSP))

²² <https://www.who.int/europe/publications/i/item/EURO-Budapest2023-6>

²³ <https://www.cop28.com/en/cop28-uae-declaration-on-climate-and-health>

²⁴ https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/adaptation-climate-change_en

²⁵ <https://climate-adapt.eea.europa.eu/en/mission>

²⁶ Commission Notice giving technical guidance on the climate proofing of infrastructure in the period 2021-2027 (2021/C 373/01, OJ C 373, 16.9.2021, p. 1), implementing Article 5(5) of the European Climate Law.

²⁷ Commission Notice Guidelines on Member States' adaptation strategies and plans, C/2023/4802, OJ C 264, 27.7.2023, p. 1–31.

applying legal frameworks instead of soft policies, regularly updating adaptation strategies and plans, applying climate risk assessments, involving all relevant stakeholders, and monitoring and evaluation of all adaptation actions. The guidelines also put forward topics that need to be considered such as nature-based solutions and just resilience.

Scientific advice on climate change

The European Climate Law provided for the establishment of a European Scientific Advisory Board on Climate Change, through amendment of Regulation (EC) No 401/2009²⁸. The Advisory Board was appointed in 2022, to provide independent scientific advice on Union measures and climate targets, with its Secretariat hosted by the European Environment Agency. The Advisory Board provided scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030-2050²⁹, and adopted several other reports since its establishment. The Commission took due account of the advice of the Advisory Board when presenting the recommended Union 2040 climate target.

In its report ‘Towards EU climate-neutrality: progress, policy gaps and opportunities’³⁰, the European Scientific Advisory Board on Climate Change (Advisory Board) found that more efforts are needed across all sectors to achieve the Union’s climate objectives from 2030 to 2050, and particularly in buildings, transport, agriculture and forestry. It acknowledges the potential of the “Fit for 55 package” to speed up the EU’s decarbonisation and calls for its full and swift implementation, but warns that additional measures are imperative if the EU is to achieve its climate-neutrality objective. The Advisory Board recommends a series of actions to put the EU on track towards climate neutrality. These include putting forward clear plans and timelines to phase out harmful fossil fuel subsidies, making EU policies fully consistent with the need to phase out fossil fuels, reforms to existing EU policies for the post-2030 period including additional adjustments to the EU ETS and EU ETS 2, and to the overall framework for governing climate action (for example as regards national long term strategies) and enforcing compliance of Member States, introducing new policies to pursue more ambitious reductions in demand for material, energy and greenhouse gas-intensive products, better aligning the EU’s common agricultural policy with EU climate ambitions, introducing some form of emissions pricing in the agricultural and land use sectors, and ensuring a just transition and public support. As regards aviation, the Advisory Board recommends that the EU should ensure that the same carbon price applies to all flights (including to third-country destinations). The Commission will consider the advice of the Advisory Board, *inter alia* in the context of the implementation of the “Fit for 55” package and when preparing the post-2030 climate policy framework.

The European Climate Law invites each Member State to establish a national climate advisory body. Not all Member States have established such a body yet. The Advisory Board recommends that their establishment should be mandatory³¹.

Climate-consistency check

In November 2021, the Commission updated its Better Regulation instruments to ensure that new Union policies are consistent with climate goals. All proposed Union measures are now to be assessed for their consistency with climate objectives – the climate-neutrality objective and the objective to ensure

²⁸ Regulation (EC) No 401/2009 of the European Parliament and of the Council of 23 April 2009 on the European Environment Agency and the European Environment Information and Observation Network, OJ L 126, 21.5.2009, p. 13.

²⁹ European Scientific Advisory Board on Climate Change, Scientific advice for the determination of an EU-wide 2040 climate target and a greenhouse gas budget for 2030-2050. DOI: 10.2800/609405.

³⁰ European Scientific Advisory Board on Climate Change, Towards EU climate neutrality, Progress, policy gaps and opportunities, Assessment Report 2024, DOI: 10.2800/216446.

³¹ Mentioned above, European Scientific Advisory Board on Climate Change, Towards EU climate neutrality, Progress, policy gaps and opportunities, Assessment Report 2024.

progress on adaptation – as part of the impact assessment process. Good progress has been made in implementing this check. In 2022, out of the 26 impact assessments deemed relevant for this assessment, 19 were found to have sufficiently assessed consistency of the initiative with climate objectives, while 7 impact assessments did not sufficiently assess climate aspects. This represents almost 73% of relevant cases and reflects the fact that it is a new requirement. The situation has further improved in 2023. Out of the 16 impact assessments deemed relevant for this assessment, 13 sufficiently assessed consistency with the Climate Law, while 3 did not sufficiently assess that aspect. This represents 81% of the relevant cases and indicates an increase for this indicator as compared to 2022. With more experience in implementing the climate consistency check and in view of a need to embed future climate risks better across policies, the operationalisation of and compliance with this new impact assessment requirement could be further improved. The Advisory Board recommends the Commission to assess more systematically the consistency of any draft measure or legislative proposal.³²

Public Participation

EU-wide public opinion polls show that an overwhelming majority of EU citizens are concerned about climate change, support EU action to address it, and are also taking action themselves³³.

The involvement and commitment of the public, regions, local communities and of all stakeholders is crucial to the success of the European Green Deal. To inform and engage citizens on climate change and action, as well as to tackle climate disinformation, the Commission continued and enhanced its general public outreach through channels such as websites, social media and targeted communication activities. In December 2020, the Commission launched the European Climate Pact³⁴ to give citizens a greater role in designing both mitigation and adaptation actions, and an effective platform to do so. To celebrate the first two years of the Pact, in 2023, the Commission organised a conference bringing together Climate Pact ambassadors, experts, and activists. During the event, more than 6 600 participants discussed ways to build a more sustainable Europe for the future. By December 2023, more than 750 Pact Ambassadors were informing, inspiring and supporting climate action in their communities and networks, and a call was launched to invite organisations to become partners of the Pact. The Pact also entered into partnerships with global campaigns encouraging individual action on climate change³⁵ and organised events and activities at national level in all Member States.

In line with the Better Regulation rules, the Commission launched several public consultations and stakeholder events, for example to gather views on the Union's climate target for 2040. During the European Climate Stocktake in October 2023, policymakers and stakeholders discussed the progress and achievements towards the Paris Agreement goals, contributing to the discussion in the run-up to the global stocktake. Over 350 people joined the conference in person in Brussels, with over 7 400 following online from 93 countries worldwide.

Furthermore, dialogue with industry is also taking place through the Clean Transition Dialogues, and a Strategic Dialogue on the Future of Agriculture with farmers and other actors in the food chain on the future of agriculture has also been launched.

In 2023, the European Parliament, Council and Commission signed a Joint Declaration establishing 15 July as the EU day for the Victims of the Global Climate Crisis. The annual day will serve to commemorate victims in Europe as well as worldwide and to raise awareness of concrete steps that

³² Mentioned above, European Scientific Advisory Board on Climate Change, Towards EU climate neutrality, Progress, policy gaps and opportunities, Assessment Report 2024.

³³ Special Eurobarometer on Climate Change, July 2023

³⁴ European Climate Pact website, https://climate-pact.europa.eu/index_en.

³⁵ "Count Us In" campaign in 2020-23 and the UN Act Now campaign from 2023.

people can take at their level to help prevent climate disasters from happening, to be better prepared and respond to them.

Last, the Communication on the Union's climate target for 2040 foresees strengthening a structured and systematic dialogue with social partners to ensure their contribution and involvement, focusing on employment, skills and just transition.

Sectoral roadmaps

Starting from the Updated Industrial Strategy in 2021³⁶, the Commission has engaged with several European industrial ecosystems to prepare sectorial "transition pathways". To this effect, the Commission and the EU's Industrial Forum have developed a blueprint for the transition pathways of industrial ecosystems³⁷, which includes also an addendum³⁸ to address the need for an accelerated green transition while ensuring higher diversification of supplies (including energy), more affordable energy, higher energy efficiency as well as more control over strategic value chains, following the Russian invasion of Ukraine.

Currently, the transition pathways³⁹ have been prepared for the following ecosystems: tourism, chemicals, construction, proximity and social economy, textiles, mobility, agri-food and retail. Similar pathways, covered under other industrial strategies, exist also for energy intensive industries, renewables, health, creative and cultural industries, digital and electronics. Transition pathways on aerospace and metals sectors ecosystems are under preparation.

To support the decarbonisation of European industry in the implementation of the European Green Deal, the Commission has engaged in organising Clean Transition Dialogues at the highest level with a number of sectors and their value chains to identify major bottlenecks to acceleration of their investments in decarbonisation and how to strengthen the industrial dimension of the European Green Deal in general. So far, the following Clean Transition Dialogues took place: Hydrogen; Energy-intensive; Clean-tech; Critical raw materials; Green Deal infrastructure; Forest and Forestry owners; Cities; Steel industry; Clean mobility. A number of sectors within the energy intensive industries cluster have issued sectorial Decarbonisation Manifestos. The Commission presented the stocktake of the Clean Transition Dialogues prior to the Special European Council meeting in April this year⁴⁰.

The main underlying issue remains the availability and affordability of clean energy today and in the future, creation of markets for climate-neutral, circular economy products, need for more skilled force for transition as well increased availability of private financing and capital for targeted support to scale up breakthrough technologies and nascent markets for decarbonisation.

3. Operation of the Effort Sharing Regulation

The Effort Sharing Regulation sets for each Member State a national greenhouse gas emission reduction target for 2030, collectively contributing to an emission reduction at EU level of 40% compared to 2005 levels. These targets are differentiated based on fairness as reflected in Member States' gross domestic product (GDP) per capita and cost-effectiveness. To achieve the 2030 targets, the Effort Sharing Regulation also defines annual emission limits, expressed in Annual Emission Allocations (AEAs) for the years 2021 to 2030.

³⁶ COM(2021)350, Updating the 2020 New Industrial Strategy: Building a stronger Single Market for Europe's recovery.

³⁷ <https://ec.europa.eu/docsroom/documents/49407>

³⁸ <https://ec.europa.eu/docsroom/documents/53357>

³⁹ https://single-market-economy.ec.europa.eu/industry/transition-pathways_en

⁴⁰ COM(2024) 163

The Effort Sharing Regulation was revised as part of the “Fit for 55” package, increasing the ambition level to align it with the updated 2030 target to reduce net GHG emissions by at least 55% set in the European Climate Law. The amended Effort Sharing Regulation aims to reduce greenhouse gas emissions by 40% in 2030, compared to 2005 levels, an increase in ambition level of 11 percentage points. The annual emission limits were also brought in line with the increased ambition level.⁴¹ There was no change in the Regulation’s scope, which continues to apply to greenhouse gas emissions from the sectors of domestic transport (excluding CO₂ emissions from aviation), buildings, agriculture, waste and small industry. The Effort Sharing Regulation is complemented with measures at EU level to help Member States to reduce emissions in sectors covered by this Regulation such as the CO₂ emissions standards for cars vans⁴² and heavy-duty vehicles⁴³, the internalisation of CO₂ external costs in tolls⁴⁴, and energy legislation⁴⁵. Member States take action with policies and measures at national level, taking into account their specific national circumstances.

To support Member States in meeting their targets cost-effectively, the Effort Sharing Regulation allows Member States a certain level of flexibility to match their Effort Sharing emissions with their AEAs over time and for some Member States to cancel a limited amount of EU ETS allowances for an equivalent amount of AEAs. Member States can also use a limited number of credits under the LULUCF Regulation to comply with their national emission limits under the Effort Sharing Regulation, to stimulate additional action in the land use sector. The flexibility is higher for Member States with a larger share of emissions from agriculture.

As the Commission assessed in its Climate Action Progress Report 2023, based on the Member States’ greenhouse gas inventory data and emission projections, at EU level a surplus in AEAs is expected in the first years the Effort Sharing Regulation operates. Estimated emissions under the Effort Sharing Regulation are 3,3% below Member States’ aggregated emission limit in 2021 and 2% in 2022.⁴⁶ While for 2023 still a small surplus of AEAs is expected, a deficit is expected in later years. There may thus only be a limited amount of AEAs available for trading between Member States. Over the 2021-2030 period, a cumulative deficit of AEAs is projected as of 2027.

The flexibilities can help some Member States to close or reduce the gap between their projected greenhouse gas emissions and emission limits under the Effort Sharing Regulation. As the flexibility between the Effort Sharing Regulation and the LULUCF Regulation works both ways, Member States’ actions in the land sector can both negatively and positively contribute to their ability to reach their targets. While flexibilities are available, further action is needed to meet the 2030 objective of the Effort Sharing Regulation.

The Climate Action Progress Report showed projected greenhouse gas emissions reductions under the Effort Sharing Regulation to reach 32% by 2030, compared to 2005 levels, leaving a substantial gap to the 40% target. In parallel, Member States have been updating their National Energy and Climate Plans

⁴¹ In 2023 the Commission amended Commission Implementing Decision (EU) 2020/2126 by Commission Implementing Decision (EU) 2023/1319 updating Member States’ AEAs for the years 2023-2025. Member States’ AEAs for the years 2026-2030 were also revised but still have to be established after a comprehensive review of Member States’ emissions under the Effort Sharing Regulation in the years 2021, 2022 and 2023, which is the starting point of Member States’ emission limits for 2026 - 2030.

⁴² Regulation (EU) 2019/631, OJ L 111, 25.4.2019, p. 13.

⁴³ Regulation (EU) 2019/1242, OJ L 198, 25.7.2019, p. 202.

⁴⁴ Directive 1999/62/EC, OJ L 187, 20.7.1999, p. 42.

⁴⁵ For instance, the Renewable Energy Directive (Directive 2018/2001/EU), Energy Efficiency Directive (Directive 2023/1791/EU) and the Energy Performance of Buildings Directive (Directive 2010/31/EU).

⁴⁶ The 2021 emissions are based on the final inventory reports and the 2022 emissions are based on approximated inventory reports and EEA’s calculation of ESR emissions. The final ESR emissions for 2021 and 2022 will only be determined after a comprehensive review in 2027.

(NECPs) to bring them in line with the updated energy and climate objectives. This includes aligning their updated NECPs with the updated Effort Sharing targets. Member States' draft updated NECPs were due by 30 June 2023 and final updated NECPs are due by 30 June 2024.

The draft updated NECPs show some improvement compared to the Climate Action Progress Report with projected greenhouse gas emission reductions reaching 33,8% by 2030, but still leaving a significant gap to the EU-level target of 40%.⁴⁷ As the updated targets under the Effort Sharing Regulation were only agreed at the end of 2022, Member States may still update their projections and put in place additional policies and measures to reflect the increased ambition level and for the EU to meet its 2030 target under the Effort Sharing Regulation.

Based on the draft updated NECPs, the Commission gave recommendations to Member States for improvements in their final updated NECPs. The Commission recommended to most Member States to put in place sufficient additional policies and measures to fill the gap in reaching the Effort Sharing targets. The Commission highlighted the lack of emission reductions in the field of buildings and transport and called for further action by Member States in this area. The Commission noted that only few Member States considered the new ETS covering buildings and road transport, which will become operational in 2027, (ETS 2 as explained in section 4 below) in their projected emission reductions for 2030. As explained below, the ETS 2 will help Member States achieve their greenhouse gas emission reduction targets under the Effort Sharing Regulation.

At EU level, overall agriculture emissions have been stable since 2010. Member States' projections in the national energy and climate plans show a more diversified picture. Projected agricultural emissions seem to decrease very slowly, and more efforts will be needed.

The EU-wide Effort Sharing targets are set in line with the EU intermediate target set in the European Climate Law to reduce net greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels which in turn is in line with the objective of climate neutrality by 2050.⁴⁸ The Communication on the Union's climate target for 2040 started the dialogue on the right pathway to 2040 and climate neutrality by 2050. The need for the concrete additional Union policies and measures in view of necessary greenhouse gas reductions by the Union and its Member States towards that target, including in relation to national targets, will be examined after the 2040 climate target has been set.

4. Emissions Trading System Directive

The EU ETS was also revised as part of the "Fit for 55" package, aligning it with the updated 2030 target to reduce net GHG emissions by at least 55% set in the European Climate Law, broadening its application and increasing its level of emission reductions.

To achieve emission reductions cost-effectively, the EU ETS was strengthened and its scope expanded to maritime transport and additional emissions from aviation. Altogether, the emissions cap is tightened

⁴⁷ Communication from the Commission on the EU wide assessment of the draft updated National Energy and Climate Plans. An important step towards the more ambitious 2030 energy and climate objectives under the European Green Deal and RePowerEU. COM(2023) 796 final, 18.12.2023.

⁴⁸ On 18 July 2023 Poland brought an action before the Court of Justice of the European Union challenging the legality of Regulation (EU) 2023/857 of the European Parliament and of the Council of 19 April 2023 amending the Effort Sharing Regulation (Case C-451/23). On 23 August 2023 Global Legal Action Network clg, and Climate Action Network Europe asbl filed a request before the Commission for internal review, in accordance with the Aarhus Regulation, of Commission Implementing Decision (EU) 2023/1319. On 29 November 2023 the Commission, after making a detailed assessment of the review, communicated to the applicants that it considered the request unfounded.

to bring emissions down by 62% by 2030 compared to 2005 levels. In parallel, operational parameters of the Market Stability Reserve (MSR) established by Decision (EU) 2015/1814 of the European Parliament and of the Council have been calibrated to continue fostering a balanced EU carbon market. Chiefly, the MSR intake rate of 24% is maintained and the invalidation threshold is fixed at 400 million allowances. The intake rate mechanism is also adapted to mitigate threshold effects. When the total number of allowances in circulation (TNAC) is between 833 and 1 096 million allowances, the intake rate mechanism will not be activated; instead, a smaller share of allowances will be deducted from auction volumes and placed in the Reserve. Furthermore, for emissions from 2024, the net demand from aviation is included in the TNAC calculation. The measures in the event of excessive price fluctuations in Article 29a have also been reinforced.

To help advance sectoral decarbonisation, free allocation rules have been adapted. This includes conditionality requirements for industry installations to access free allocation (in the form of energy audits and for certain installations, climate neutrality plans) and a phase-out of free allocation in the aviation sector. Twenty million allowances will be used to support the deployment of sustainable alternative fuels for aviation from flights covered by the EU ETS.

Also, in energy intensive industrial sectors for the production of certain goods (cement, aluminium, fertilisers, electricity, hydrogen, iron and steel, as well as some precursors and a limited number of downstream products), free allocation will be gradually phased out. This is due to the introduction of the Carbon Border Adjustment Mechanism (CBAM) by Regulation (EU) 2023/956 of the European Parliament and of the Council covering these goods to mitigate the risk of carbon leakage as the EU strengthens its climate ambition.

Maritime transport is a large and growing source of greenhouse gas emissions, generating around 3-4% of the EU's total CO₂ emissions (over 124 million tonnes of CO₂ in 2021) when considering all emissions from voyages to and from the EU⁴⁹. Its inclusion in the EU ETS ensures that the sector contributes to the EU's climate objectives. Under the revised ETS Directive, the EU ETS covers greenhouse gas emissions from maritime transport as of January 2024. Initially, it only concerns CO₂ emissions and then CH₄ (methane) and N₂O emissions from 2026. Emissions from all large ships (of 5 000 gross tonnage and above) entering EU ports are included, on a flag-neutral basis, in respect of:

- 50% of emissions from voyages starting or ending outside the EU (foreseeing third countries deciding on appropriate action for the remaining share of emissions);
- 100% of emissions that occur between two EU ports and when ships are in EU ports.

To stimulate cost-effective emission reductions in buildings, road transport and additional sectors (mainly small industry not covered by the existing EU ETS), a new emissions trading system has been introduced for fuels combusted in these sectors (ETS 2). The ETS 2 will complement other policies of the European Green Deal in the covered sectors, helping Member States achieve their emission reduction targets under the Effort Sharing Regulation. So far, emission reductions in those sectors have been insufficient to put the EU on a firm path towards its 2050 climate neutrality goal. The complementary approach of ETS 2 and the Effort Sharing Regulation maintains incentives for Member States to address market failures and split incentives, while incentivising cost-effective emissions reductions. The carbon price set by the ETS 2 will provide a further market incentive for investments in building renovations and low-emissions mobility. Although it is a 'cap and trade' system like the existing EU ETS, the ETS 2 will cover emissions upstream, regulating fuel suppliers rather than consumers. The ETS 2 will start operating from 2027 and its design contains several features to ensure

⁴⁹ Report from the Commission – Fourth Annual Report from the European Commission on CO₂ Emissions from Maritime Transport (period 2018-2021), 13.3.2023 (SWD(2023) 54 final).

it can function in an orderly, smooth and efficient manner from the start. Monitoring and reporting of emissions starts already in 2025.

Part of the revenues from the auctioning of emission allowances in ETS 2 will supply the new Social Climate Fund established by Regulation (EU) 2023/955 of the European Parliament and of the Council to address the social impacts arising from the new system on vulnerable groups in the EU. Together with the Member States' contributions, the Social Climate Fund will mobilise EUR 86.7 billion from 2026 to 2032.

To aid sectors in tackling the decarbonisation challenge, more resources from the ETS framework have been leveraged for the green transition. The sizes of both the Innovation and the Modernisation Funds have been increased. Both are funded by the EU ETS. To recognise the significant contribution of EU ETS revenues to the climate transition, and enhance public acceptability, Member States and the Commission must ensure that it is clearly indicated where support comes from EU ETS revenues, such as under the Innovation and Modernisation Funds. Additional resources under the Innovation Fund will support breakthrough technologies for the green transition, including in the maritime and the sectors subject to CBAM, and may now also be awarded through competitive bidding procedures notably to scale up innovative processes and technologies, with a view to their broad roll-out across the EU. Additional resources under the Modernisation Fund will help finance the energy sector transformation in the original ten beneficiary Member States, plus Greece, Portugal and Slovenia.

Finally, since 5 June 2023 Member States are required to spend all revenues from the existing ETS and the ETS2 (or their equivalent financial value) to further climate action, energy transformation and a just transition, in accordance with the purposes listed in Articles 3ga(3), 10(3) and 30d(6) of the ETS Directive.

Most changes outlined take effect from 1 January 2024 or from the start of the second free allocation period (2026-2030), yet some apply since the entry into force on 5 June 2023 of Directive (EU) 2023/959 of the European Parliament and of the Council, amending the ETS Directive. Multiple delegated and implementing acts that are essential for the functioning of the EU ETS, have been amended or are in the process of being amended to implement the changes introduced by Directive (EU) 2023/959.

As concluded in the Communication on the Union's climate target for 2040, the increased ambition that has been set in the EU ETS in line with the updated 2030 target will only be achieved if the legal framework is accurately implemented, avoiding further changes that could generate instability for the investments taking place in the sectors subject to the EU ETS. This Communication sets out eight building blocks for achieving the 2040 target. The EU ETS is a key policy tool of five of these building blocks: (i) A resilient and decarbonised energy system for our buildings, transport and industry; (ii) An industrial revolution with competitiveness based on research and innovation, circularity, resource efficiency, industrial decarbonisation and clean tech manufacturing at its core; ; (iii) Infrastructure to deliver and to transport and store hydrogen and CO₂; (iv) Climate policy as an investment policy; and (v) Fairness, solidarity and social policies at the core of the transition. Part of these building blocks are closely connected to the elements of the EU ETS Directive that will be subject to review by July 2026.

The need for the concrete additional Union policies and measures in view of necessary greenhouse gas reductions by the Union and its Member States towards the 2040 climate target, including in relation to the EU ETS and its linear reduction factor fixed in Article 9 of the ETS Directive, will be examined after the 2040 climate target has been set.

5. Conclusions

Although the European Climate Law is still in the early stages of implementation, enshrining the 2050 climate-neutrality objective into legislation and providing for continuous progress on adaptation, has set the long-term direction of travel and given increased investment predictability. Many actions have been undertaken since the Climate Law's entry into force, as described in this report. The Effort Sharing Regulation and ETS Directive were revised as part of the "Fit for 55" package, aligning them with the updated 2030 target to reduce net greenhouse gas emissions by at least 55% set in the European Climate Law, and additional initiatives were adopted to speed up the transition to climate neutrality.

As set out in the Communication on the Union's climate target for 2040, stability and full implementation of the legislative framework in place for meeting the 2030 climate and energy targets is a precondition for the EU to stay on course to the 2040 target on the way to climate neutrality in 2050 and reap the full potential of the transition. The Communication launches the process of setting the 2040 climate target for the EU. It opens a political debate on the choices for European citizens and governments on the way forward, informing the next Commission in making the legislative proposal to include the 2040 target in the European Climate Law and designing the appropriate post-2030 policy framework.

In parallel, action is underway to enhance adaptive capacity, strengthen resilience and reduce vulnerability to climate change, as required by the European Climate Law. The Communication on Managing climate risks stresses key actions for the EU and Member States to better anticipate, understand and manage increasing climate risks, notably to clarify risk ownership. It provides a robust and timely response to the clear and present danger of more climate disasters, and stresses the need to implement existing policies. The Commission will share EU experience, knowledge and tools internationally and continue to work with Member States, the public, businesses and other EU institutions to increase the preparedness and resilience of EU society and economy.