

Proposal COM(2021) 551 of 14 July 2021 amending Directive 2003/87/EC establishing a system for greenhouse gas emission allowance trading within the Union (EU-ETS), Decision (EU) 2015/1814 concerning the establishment and operation of a market stability reserve (MSR) for the EU ETS and Regulation (EU) 2015/757

Proposal COM(2021) 556 of 14 July 2021 amending Regulation (EU) 2019/631 as regards strengthening the CO₂ emission performance standards for new passenger cars (cars) and new light commercial vehicles (LCV)

Proposal COM(2021) 559 of 14 July 2021 for a Regulation on the deployment of alternative fuels infrastructure (AFIR) and repealing Directive 2014/94/EU

and other proposals

FIT FOR 55: CLIMATE AND ROAD TRANSPORT

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LONG VERSION

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A. Key Elements of the EU Proposal

1 Context: “Fit for 55” Legislative Proposals and EU Emissions Trading (EU-ETS)

- ▶ With its “European Climate Law” [Regulation (EU) 2021/1119; see [cepPolicyBrief 3/2020](#)], the EU has committed itself to reducing its greenhouse gas emissions (GHG) to net zero net by 2050 (“climate neutrality”) and by 55% by 2030 as compared with 1990 levels (EU 2030 Climate Target).
- ▶ In order to reach the EU 2030 Climate Target, the Commission has proposed tightening the EU’s climate and energy legislation (“Fit for 55” climate package of 14 July 2021). The following legislative proposals are of particular relevance to road transport:
 1. Proposal COM(2021) 551 amending the Directive on the EU Emissions Trading System (EU ETS) [EU-ETS Directive 2003/87/EC], the Decision on the Market Stability Reserve (MSR) of the EU ETS [MSR Decision (EU) 2015/1814] and Regulation (EU) 2015/757;
 2. Proposal COM(2021) 571 amending the MSR Decision on the amount of allowances to be placed in the MSR until 2030;
 3. Proposal COM (2021) 568 for a Regulation establishing a Social Climate Fund;
 4. Proposal COM(2021) 563 to recast the Directive restructuring the Union framework for the taxation of energy products and electricity [Energy Taxation Directive 2003/96/EC];
 5. Proposal COM(2021) 556 amending the Regulation on CO₂ emission performance standards for new passenger cars and new light commercial vehicles (LCV) [Regulation (EU) 2019/631];
 6. Proposal COM(2021) 557 amending the Renewable Energy Directive [(EC) 2018/2001];
 7. Proposal COM(2021) 559 for a Regulation on the deployment of alternative fuels infrastructure (AFIR) and repealing Directive 2014/94/EU;
 8. Proposal COM(2021) 555 amending the Effort Sharing Regulation [(EU) 2018/842] on binding annual GHG emissions reductions by Member States from 2021 to 2030.
- ▶ The EU Emissions Trading System (EU ETS I) [see [cepInput 3/2018](#)] is a “Cap & Trade” system which
 - sets an upper limit (Cap) on the maximum allowable GHG emissions from the sectors covered – energy-intensive industry, power generation, aviation within the EU – by limiting the number of EU ETS I emission allowances;
 - lowers the cap annually by a linear reduction factor (LRF); and
 - allows EU ETS I emission allowances to be traded (Trade).
- ▶ Of all GHG emissions in the EU,
 - approx. 41% come from the EU ETS I sectors; industry, power generation and aviation;
 - approx. 22% come from the road transport sector and approx. 12% from the buildings sector.
- ▶ GHG emissions [Source: European Environment Agency]
 - decreased in the EU ETS I sectors by 36.4% between 1990-2018 and by 29% between 2005-2018;
 - increased in road transport by 28% between 1990-2018 and decreased by only 0.5% between 2005-2018.
- ▶ A separate EU ETS II is to be established for GHG emissions from the road transport and buildings sectors by 2026 [EU ETS Directive, new Chapter IV].
- ▶ In the current legislative procedure, several reports by the rapporteurs of the involved committees of the European Parliament have been adopted so far, including:
 - Transport and Tourism Committee (TRAN):
 - Report on the EU ETS Directive of 28 April 2022 (“TRAN Report EU ETS”),
 - Report on CO₂ emission performance standards for passenger cars and LCVs of 28 April 2022 (“TRAN Report on CO₂ fleet targets”);
 - Committee on Industry, Research and Energy (ITRE):
 - Report on CO₂ emission performance standards for passenger cars and LCVs of 20 April 2022 (“ITRE report on CO₂ fleet targets”)

2 EU Emissions Trading for Road Transport and Buildings (EU ETS II)

2.1 Scope

- ▶ The EU ETS II applies to GHG emissions from fuels placed on the market for use in the following sectors [EU ETS Directive 2003/87/EC, new Art. 30a in conjunction with Annex III]:
 - Road Transport;
 - commercial and public buildings and residential buildings, including combined heat and power (CHP) and heating installations for buildings (“buildings sector”).

- ▶ Fuels for commercial or small industrial installations, that do not fall within the scope of the EU ETS I, are not covered by the EU ETS II, although they are subject to e.g. the German national ETS for road transport and buildings [Fuel Emissions Trading Act of 12 December 2019].
- ▶ As a “regulated entity” requiring allowances, any natural or legal person that places fuels on the market in the road transport and buildings sectors (“upstream” emissions trading) must hold EU ETS II allowances [EU ETS Directive 2003/87/EC, new Art. 3 (x)]:
 - the authorised warehouse keeper liable to pay the excise duty where the fuel is routed through a tax warehouse or otherwise, or
 - any other person liable to pay excise duty on fuels, or designated to do so by the Member States.
- ▶ The TRAN EU ETS Report wants to remove road transport from the scope of the EU ETS II, so that only the buildings sector would be covered [EU ETS TRAN Report].

2.2 Permits for GHG emissions

- ▶ Member States must ensure that from 2025 no regulated entity carries out its activities unless it holds a permit [EU ETS Directive 2003/87/EC, new Art. 30b (1)].
- ▶ The authority must issue a permit to emit GHGs if the company is able to monitor and report GHG emissions corresponding to the quantities of fuels it places on the market in the EU ETS II sectors [EU ETS Directive 2003/87/EC, new Art. 30b (3)].
- ▶ Permits for GHG emissions [EU ETS Directive 2003/87/EC, new Art. 30b (4)] include:
 - a list of the fuels released for consumption in the EU ETS II sectors, together with a description of the “means” by which fuels are released for “free consumption under tax law”;
 - an obligation to surrender EU ETS II allowances corresponding to GHG emissions based on the total quantities of fuels placed on the market in a calendar year;
 - a monitoring plan and reporting requirements.

2.3 Cap Setting and Linear Reduction Factor (LRF)

The EU-wide quantity of EU ETS II allowances issued annually (EU ETS II cap) is determined according to the following rules [EU ETS Directive 2003/87/EC, new Art. 30c in conjunction with Annex III]:

- As from 2026, the cap will be set based on data collected under the Effort Sharing Regulation for 2018 to 2019 and extrapolated for 2024.
- A linear progression for the cap is calculated based on the 2024 value using an LRF of 5.15%; the resulting cap for 2026 must be published by 1 January 2024 and this linear progression remains binding until 2028.
- A new linear reduction trajectory will be calculated by June 2027, based on the average GHG emissions reported for 2024 to 2026, using an LRF of 5.43; this linear reduction trajectory is binding for the period 2028 to 2030.
- If the average GHG emissions reported in 2024-2026 exceed the value for 2025, corresponding to the linear reduction trajectory applicable until 2028, the LRF will need to be recalculated to meet the EU 2030 Climate Target.

2.4 Auctioning of Emission Allowances

- ▶ From 2026, the EU ETS II allowances will be made available to the covered entities exclusively through auctioning [EU ETS Directive 2003/87/EC, new Art. 30d (1)].
- ▶ EU ETS II allowances cannot be used in place of EU ETS I allowances in order to meet the surrender obligations of the EU ETS I sectors [EU ETS Directive 2003/87/EC, new Art. 30e (1)].
- ▶ In order to ensure a smooth start and sufficient liquidity [COM(2021) 551, Recital 50], the quantity of EU ETS II allowances to be auctioned in 2026 will be 130% of the 2026 cap; the additional EU ETS II allowances will be deducted from the auction quantities for the period 2018-2030 [EU ETS Directive 2003/87/EC, new Art. 30d (2)].
- ▶ In each year from 2026 [EU ETS Directive 2003/87/EC, new Art. 30d (3) and (4)]
 - 150 million EU ETS II allowances will be auctioned to support the Innovation Fund [EU ETS Directive 2003/87/EC, Art. 10a (8)];
 - all other EU ETS II allowances will be allocated to the Member States for auctioning, in proportion to their share of the reference emissions for the EU ETS II sectors from the period 2016-2018 [Regulation (EU) 2018/842, Art. 4 (2)].

2.5 Market Stability Reserve (MSR II)

In order to “address potential risks of an excessive price increase”, the following quantities of EU ETS II allowances will be “placed in and released from” a separate section of the Market Stability Reserve (MSR II) for EU ETS II allowances [MSR Decision (EU) 2015/1814, new Art. 1a]:

- In 2026, 600 million additional allowances will be created for the MSR II, of which those not released by January 2031 will become invalid [EU ETS Directive 2003/87/EC, new Art. 30d (2)].
- If the Total Number of Allowances in Circulation (TNAC), i.e. the cumulative number of auctioned EU ETS II allowances less the cumulative tonnes of verified GHG emissions in the EU ETS II, exceeds 440 million EU ETS II allowances in any one year, 100 million of them will be deducted from the quantity to be auctioned and placed in the MSR II.
- If the TNAC is below 210 million EU ETS II allowances in any one year, 100 million EU ETS II allowances will be released from the MSR II and auctioned by Member States.
- In the event of an “excessive” price increase where the average auction price in more than three consecutive months is over double the average auction price in the six preceding months (“trigger threshold”), 50 million EU ETS II allowances will be released within a maximum of three months; in the event of a threefold price increase, 150 million EU ETS II allowances will be released [EU ETS Directive 2003/87/EC, new Art. 30h].

2.6 Use of Auction Revenues

- ▶ Member States decide on the use of revenues generated from the auctioning of EU ETS II allowances, except for the revenues established as “own resources” for the EU budget [TFEU, Art. 311 (3)].
- ▶ Member States must use the revenue from the auctioning of EU ETS II allowances for
- ▶ GHG mitigation measures eligible for EU ETS I allowance auction proceeds [EU ETS Directive 2003/87/EC, Art. 10 (3)] – including the reduction of taxes that affect the demand for and supply of labour (“distortive taxes”) [EU ETS Directive 2003/87/EC, amended Art. 10 (3) (h)];
 - measures to support [EU ETS Directive 2003/87/EC, new Art. 30d (5)]
 - the decarbonisation of heating and cooling of buildings or the reduction of energy needs of buildings;
 - low and middle-income transport users;
 - the accelerated uptake of zero-emission vehicles or their refuelling and recharging infrastructure.

3 Social Climate Fund

3.1 Objective

The Social Climate Fund [COM(2021) 568, Art. 1]

- has the objective of providing financial support for “vulnerable transport users” – Including from lower middle income households and small businesses – who are “significantly affected” by increasing mobility costs due to the inclusion of road transport into the EU ETS I and “lack the means to purchase zero- and low-emission vehicles or to switch to alternative sustainable modes of transport, particularly in rural and remote areas” [COM(2021) 568, Art. 2 Abs. 13];
- supports Member States in financing measures and investments (“initiatives”) included in their Social Climate Plans (SCPs) which must be submitted to the EU Commission together with the update of their “Integrated National Energy and Climate Plan” (INEC Plan) [Governance Regulation (EU) 2018/1999 Art. 14 (2); see [cepInput 2/2019](#)].

3.2 Social Climate Plans (SCPs)

- ▶ Member States must include in their SCPs national financing measures to decarbonise heating and cooling and promote zero- and low emission mobility [COM(2021) 568, Art. 3 (3)].
- ▶ Member States must set targets and interim targets (“milestones”) in their SCPs for inter alia the reduction of GHG emissions covering in particular the following areas [COM(2021) 568, Art. 5 (2)]:
 - energy efficiency, building renovation and reductions in the number of “vulnerable households”;
 - zero- and low-emission mobility.
- ▶ Member States may include in their SCPs the cost of direct income support to vulnerable transport users; this support must [COM(2021) 568, Art. 3 (2) and Art. 6 (1) in conjunction with Art. 4 (1) (d)]
 - decrease over time and be limited in time to the direct impact of the EU ETS II;
 - be justified on the basis of a quantitative estimate and a qualitative explanation of how the support is intended to reduce the vulnerability of transport users to fuel price increases.

- ▶ Member States must contribute at least 50 percent to the total estimated costs of their SCPs and use inter alia revenues from the auctioning of their EU ETS II allowances [COM(2021) 568, Art. 14].
- ▶ Every SCP must contain inter alia the following information [COM(2021) 568, Art. 4]
 - an estimate of the likely effects of the EU ETS II on vulnerable road users – with a sufficient level of “regional disaggregation”. At the same time, “access to public transport and basic services” must be taken into account and the most affected areas identified;
 - in the case of direct income support: the criteria for identifying eligible final recipients;
 - the estimated total costs, an appropriate cost justification and consideration of cost efficiency;
 - an explanation of how the SCP ensures that no proposal does any “significant harm” to the environment;
 - the arrangements for the effective monitoring and implementation of the SCP;
 - an explanation of the “Member State’s system to prevent, detect and correct corruption, fraud and conflicts of interests” when using the funds.

3.3 Budget and Distribution

- ▶ The Social Climate Fund is financed by the own resources of the EU budget – and as of 2026, also from the auctioning revenues from the EU ETS II [COM(2021) 568, p. 10].
- ▶ The Social Climate Fund has a budget of “25% of the expected revenues” from the auctioning of EU ETS II allowances [COM(2021) 568, Recital 23], namely [COM(2021) 568, Art. 9 (1) and (2)]
 - € 23.7 billion (bn) for the period 2025-2027;
 - € 48.5 bn for the period 2028-2032 – subject to the availability of the amounts within the ceiling of the multiannual financial framework [Art 312 TFEU].
- ▶ The Social Climate Fund covers the preparatory and running costs for the management of the Fund – including internal and external monitoring, control, audit and evaluation activities [COM(2021) 568, Art. 9 (3)].
- ▶ Payments to Member States depend on achieving the milestones and targets in the SCP [COM(2021) 568, Art. 5 (2)].
- ▶ The Social Climate Fund is only permitted to support initiatives respecting the “no significant harm principle” [Taxonomy Regulation (EU) 2020/852, Art. 17; see [cepAdhoc](#) of 14 January 2020], [COM(2021) 568, Art. 5 (3)].
- ▶ Each Member State may submit a request up to its maximum financial allocation (MFA) [COM(2021) 568, Annexes I and II] to implement its SCP [COM(2021) 568, Art. 13].
- ▶ The MFA is proportional to the total budget of the Social Climate Fund and depends [COM(2021) 568, Annex I]
 - positively on the proportion of the population at risk of poverty, and of households at risk of poverty with payment arrears – as compared with the EU average – and on the GHG emissions of the Member State's households;
 - negatively on the gross national income of the Member State.

Tab. 1: Social Climate Fund – Maximum allocation of funds per EU Member State [COM(2021) 568, Annex II]

EU Member State	Proportion of total budget (%)	EU Member State	Proportion of total budget (%)
Belgium	2.56	Lithuania	1.02
Bulgaria	3.85	Luxembourg	0.10
Czech Republic	2.40	Hungary	4.33
Denmark	0.50	Malta	0.01
Germany	8.19	Netherlands	1.11
Estonia	0.29	Austria	0.89
Ireland	1.02	Poland	17.61
Greece	5.52	Portugal	1.88
Spain	10.53	Romania	9.26
France	11.20	Slovenia	0.55
Croatia	1.94	Slovakia	2.36
Italy	10.81	Finland	0.54
Cyprus	0.20	Sweden	0.62
Latvia	0.71	EU-27	100.00

4 Energy Tax

- ▶ In order to “make energy taxation dependent on the energy content of energy products and electricity, coupled with their environmental performance” and thus align it with the CO₂ emissions generated when they are burned, as from 1 January 2023 the minimum levels of fuel taxation that Member States must levy will be set EU-wide pursuant to Table A of Annex 1 [Energy Taxation Directive 2003/96/EC, new Art. 7 in conjunction with Annex I, see Tab. 2].
 - If the minimum level of taxation for 2023 is set lower than that for 2033, the minimum levels of taxation will be increased annually up until 1 January 2033 by one tenth of the original difference.
 - For fuels from low-carbon hydrogen (“low-carbon fuels”) the minimum level of taxation set for 2023 will apply until 1 January 2033.
- ▶ Member States must [Energy taxation Directive 2003/96/EC, new Art. 5 (1) in conjunction with Annex I]
 - ensure that fuels with equal minimum levels of taxation are also taxed equally;
 - the ranking of the minimum levels of taxation for the different fuels is always maintained.
- ▶ Member States must adapt the minimum levels of taxation annually as from 2024 to take account of the changes in the harmonised consumer price index excluding energy and unprocessed food (“indexation”) [Energy Taxation Directive 2003/96/EC, new Art. 5 (2)].
- ▶ Member States are free to give effect to the exemptions or reductions in the level of taxation – as long as they do not fall below the minimum levels of taxation – either directly, by means of a differentiated tax rate, or by refunding all or part of the amount of taxation [Energy Taxation Directive 2003/96/EC, new Art. 6].

Tab. 2: Energy Taxation – Minimum levels of taxation on fuels [COM(2021) 563, Annex I, Table A]

	2023	2033	2023	2033
Fuel (energy content in gigajoules, GJ)	Euro/GJ	Euro/GJ	Euro-cent/l	Euro-cent/l
Petrol	10.75	10.75	34.20	34.20
Diesel	10.75	10.75	38.20	38.20
Non-sustainable biofuels	10.75	10.75	–	–
			Euro-cent/kg	Euro-cent/kg
Liquid gas (LPG)	7.17	10.75	33.00	49.50
			Euro-cent/MJ	Euro-cent/MJ
Natural gas	7.17	10.75	32.30	48.40
Non-sustainable biogas	7.17	10.75		
Non-renewable fuels of non-biogenic origin	7.17	10.75		
Sustainable biofuels from food and feed crops	5.38	10.75		
Sustainable biogas from food and feed crops	5.38	10.75		
Sustainable biofuels (including biogas)	5.38	5.38		
Low-carbon fuels	0.15	5.38		
Renewable fuels of non-biogenic origin	0.15	0.15		
Advanced renewable biofuels and biogas	0.15	0.15		

5 CO₂ Fleet Targets for Road Vehicles

5.1 CO₂ Fleet Targets for Cars

- ▶ For every car manufacturer, the mandatory manufacturer-specific CO₂ emission target in grammes of CO₂ per km, for their new-car fleet (“manufacturer-specific CO₂ car-fleet target”), is defined as the sum of [Regulation (EU) 2019/631, Art. 4 in conjunction with Annex I; see [cepPolicyBrief 2/2018](#)]
 - a fixed EU-wide base amount that is the same for all car manufacturers (“EU car fleet target”) and
 - a manufacturer-specific amount that is proportional to the difference between the average weight of its new-car fleet and the average weight of all new cars registered in the EU; this manufacturer-specific amount may increase or decrease the EU-wide base amount.
- ▶ As of 2030, the EU car-fleet target for new cars will be tightened by 55% – by lowering the average of all manufacturer-specific CO₂ car-fleet targets in 2021 from 100% to 45% [Regulation (EU) 2019/631, amended Art. 1 (5) (a)].
- ▶ As of 2035, the EU car-fleet target for new cars will be tightened by 100% – by lowering the average of all individual targets in 2021 from 100% to 0% [Regulation (EU) 2019/631, new Art. 1 (5a) (a)].
- ▶ The EU car-fleet target for new cars for 2035 will be lowered to only 10% according to the ITRE report on CO₂ fleet targets and to 5% according to the TRAN report on CO₂ fleet targets.
- ▶ The possibility for a car manufacturer to relax its manufacturer-specific CO₂ car-fleet target by up to 5%, if the proportion of low-emission and zero-emission cars in its new-car fleet is over 15%, will end at the end of 2029 [Regulation (EU) 2019/631, amended Art. 1 (6) and deleted Art. 1 (7)].
- ▶ The possibility for a manufacturer of less than 10,000 new cars registered in the EU per calendar year to apply for a derogation from its manufacturer-specific CO₂ car-fleet target ends at the end of 2029 [Regulation (EU) 2019/631, amended Art. 10 (2) in conjunction with Art. 10 (1)].

5.2 CO₂ Fleet Targets for Light Commercial Vehicles (LCVs)

- ▶ For every car manufacturer, the mandatory manufacturer-specific CO₂ emission target in grammes of CO₂ per km, for its new van (“light commercial vehicles”, LCVs) fleet (“manufacturer-specific CO₂ LCV-fleet target”), is defined as the sum of [see [cepPolicyBrief 2/2018](#)]
 - a fixed EU-wide base amount that is the same for all manufacturers of LCVs (“EU LCV-fleet target”) and
 - a manufacturer-specific amount that is proportional to the difference between the average weight of its new LCV fleet and the average weight of all new LCVs registered in the EU; this manufacturer-specific amount may increase or decrease the EU-wide base amount.
- ▶ As of 2030, the EU LCV-fleet target for new LCVs will be tightened by 50% – by lowering the average of all manufacturer-specific CO₂ LCV-fleet targets in 2021 from 100% to 50% [Regulation (EU) 2019/631, amended Art. 1 (5) (b)].
- ▶ As of 2035, the EU LCV-fleet target for new LCVs will be tightened by 100% – by lowering the average of all manufacturer-specific CO₂ LCV-fleet targets in 2021 from 100% to 0% [Regulation (EU) 2019/631, new Art. 1 (5a) (b)].
- ▶ The EU LCV-fleet target for new LCVs for 2035 will be lowered to only 10% according to the ITRE report on CO₂ fleet targets and to 5% according to the TRAN report on CO₂ fleet targets.
- ▶ The possibility for a car manufacturer to relax its manufacturer-specific CO₂ LCV-fleet target by up to 5%, if the proportion of low-emission and zero-emission LCVs in its new LCV fleet is over 15%, will end at the end of 2029 [Regulation (EU) 2019/631, amended Art. 1 (6) and deleted Art. 1 (7)].
- ▶ The possibility for a manufacturer of less than 22,000 new LCVs registered in the EU per calendar year to apply for a derogation from its manufacturer-specific CO₂ LCV-fleet target ends at the end of 2029 [Regulation (EU) 2019/631, amended Art. 10 (2) in conjunction with Art. 10 (1)].

5.3 CO₂ Fleet Targets for Heavy Duty Vehicles (HDVs)

- Regulation (EU) 2019/1242 on CO₂ emission standards for lorries and buses (“heavy duty vehicles”, HDVs)
- obliges manufacturers of large HDVs to reduce the average CO₂ emissions of their fleet of newly registered HDVs, in a given year, by 15% as from 2025 – based on the average CO₂ emissions in the reference period from mid-2019 to mid-2020 – and by 30% from 2030;
 - will be revised in 2022 with the CO₂ reduction commitment being finalised from 2030.

6 Renewable Fuels

- ▶ Member States must require fuel suppliers to ensure that [Renewable Energy Directive, amended Art. 25 (1)]
 - the amount of renewable fuels and renewable electricity for the transport sector leads to a reduction of at least 13% in GHG emissions per unit of energy (“GHG intensity”), compared to fossil fuels, by 2030 [Renewable Energy Directive, amended Art. 27 (1) (b)];
 - the proportion of advanced biofuels and biogas in the energy supply of the transport sector is at least 0.2% in 2022, 0.5% in 2025 and 2.2% in 2030, and the proportion of Renewable Fuels of Non-Biological Origin (RFNBOs; “synthetic fuels”) is at least 2.6% in 2030.
- ▶ When calculating GHG intensity and quotas, RFNBOs must also be taken into account if they are used as intermediate products for the production of conventional fuels [Renewable Energy Directive, amended Art. 25 (1)].
- ▶ A mechanism will be created allowing suppliers of renewable electricity to public recharging stations for electric vehicles, to receive credits which they can sell to fuel suppliers. Fuel suppliers can in turn use the credits to meet their obligations [Renewable Energy Directive, amended Art. 25 (2)].
- ▶ Multipliers for calculating targets are only being retained for aviation and maritime sectors [Renewable Energy Directive, deleted Art. 27 (2)].

7 Alternative Fuels Infrastructure

7.1 Context and Objectives

- ▶ In its Communication [COM(2020) 789] regarding the application of the Directive on the deployment of alternative fuels infrastructure, the Commission criticises the inconsistent deployment across the EU of recharging and refuelling facilities for electric vehicles and vehicles using alternative fuels (“alternative fuels infrastructure”) as well as the lack of interoperability and user-friendliness.
- ▶ By replacing Directive/94/EU with a Regulation, the Commission wants to [COM(2021) 559, Art. 1]
 - establish binding national targets for the deployment of “sufficient” alternative fuels infrastructure in the EU for road vehicles;
 - common technical specifications and requirements for user information, data availability and payment conditions with regard to alternative fuels infrastructure.

7.2 Electric Recharging

- ▶ Member States must ensure that, at the end of each year – starting from the year of entry into force of the Regulation –, publicly accessible recharging stations have a total output of at least [COM(2021) 559, Art. 3 (1)]
 - 1 kW for each battery electric car or LCV registered in their territory;
 - 0.66 kW for each plug-in hybrid car or van registered in their territory.
- ▶ Member States must ensure that publicly accessible recharging stations for cars and vans are set up in both directions of travel, at intervals of no more than 60 km, and each charging location must have a capacity of at least [COM(2021) 559, Art. 3 (2)]
 - 300 kW – including at least one recharging station with an individual power output of at least 150 kW – by the end of 2025 on the TEN-T core network and by the end of 2030 on the whole TEN-T network;
 - 600 kW – including at least two recharging stations with an individual power output of at least 150 kW – by the end of 2030 on the TEN-T core network and by the end of 2035 on the whole TEN-T network.
- ▶ Member States must ensure that publicly accessible recharging stations for HDVs are set up in both directions of travel, at intervals of no more than 100 km, and each charging location must have a capacity of at least [COM(2021) 559, Art. 4 (1) (a) and (b)]
 - 1400 kW – including at least one recharging station with an individual power output of at least 350 kW – by the end of 2025 on the TEN-T core network and by the end of 2030 on the whole TEN-T network;
 - 3500 kW – including at least two recharging stations with an individual power output of at least 350 kW – by the end of 2030 on the TEN-T core network and by the end of 2035 on the whole TEN-T network.
- ▶ Neighbouring Member States must ensure that the maximum intervals of 60 km and 100 km for cross-border sections of the TEN-T network are not exceeded.

- ▶ Member States must ensure that publicly accessible recharging stations for HDVs are set up in every [COM(2021) 559, Art. 4 (1) (c) – (e)]
 - “urban node”, with a power output of at least 600 kW, by the end of 2025 and of 1200 kW by the end of 2030 – provided by recharging stations with an individual power output of at least 150 kW.
 - “safe and secure parking area”, including at least one recharging station with a power output of at least 100 kW by the end of 2030.
- ▶ Operators of publicly accessible charging stations of over 50 kW, that are deployed after the year of entry into force of the Regulation, must accept electronic payments via card readers or contactless devices that can also read payment cards [COM(2021) 559, Art. 5 (2) (b)].
- ▶ Operators of publicly accessible charging stations below 50 kW, that are deployed after the year of entry into force of the Regulation, can also accept electronic payments through devices that generate a QR code via an internet connection which is used for the payment [COM(2021) 559, Art. 5 (2) (a)].

7.3 Hydrogen and Gas Refuelling

- ▶ Member States must ensure that by the end of 2030 [COM(2021) 559, Art. 6 (1)]
 - publicly accessible hydrogen refuelling stations for lorries, with a minimum capacity of 2 t per day and equipped with at least a 700 bars dispenser, are deployed at maximum intervals of 150 km along the TEN-T core network and the TEN-T comprehensive network;
 - at least one publicly accessible hydrogen refuelling station is deployed in each urban node, with consideration being given to the deployment of such stations in multimodal hubs where other transport modes could also be supplied.
- ▶ Neighbouring Member States must ensure that the maximum interval of 150 km is not exceeded for cross-border sections of the TEN-T networks [COM(2021) 559, Art. 6 (2)].
- ▶ The operator or owner of a publicly accessible filling station must ensure that the filling station is designed for the refuelling of cars, LDVs and HDVs and that liquid hydrogen can also be refuelled in freight terminals [COM(2021) 559, Art. 6 (3)].
- ▶ Operators of publicly accessible filling stations must accept electronic payments via card readers or contactless devices that can also read payment cards [COM(2021) 559, Art. 7 (1)].
- ▶ Member States must ensure that an appropriate number of publicly accessible refuelling points for liquefied natural gas (LNG) are put in place by 1 January 2025, at least along the TEN-T core network, where there is demand and the costs are not disproportionate to the economic and environmental benefits [COM(2021) 559, Art. 8].

B. Legal and Political Context

1 Legislative Procedure

14 July 2021 Adoption by the Commission

Open Adoption by the European Parliament and the Council, publication in the Official Journal of the European Union, entry into force

2 Options for Influencing the Political Process

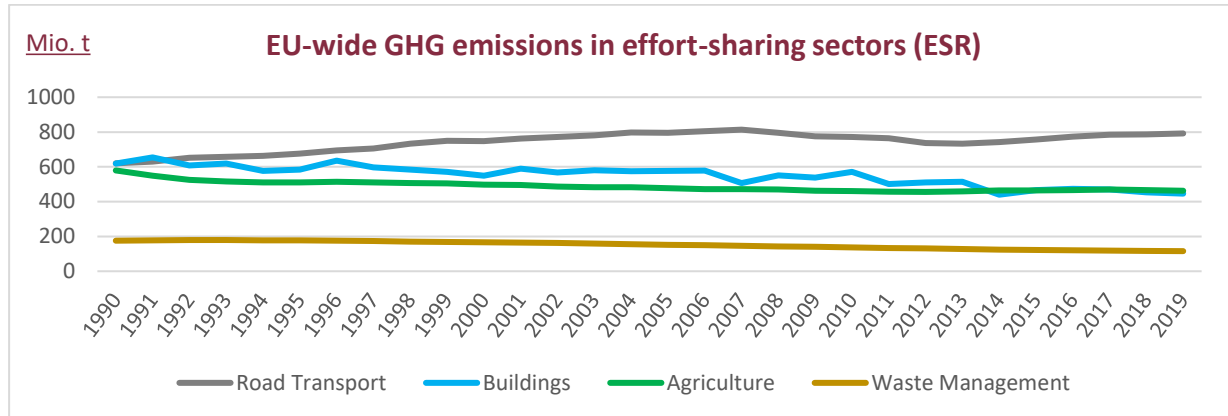
Directorates General:	Climate and Energy
Committees of the European Parliament:	Environment, Public Health and Food Safety (ENVI, leading), Rapporteur for EU ETS: Peter Wiese (EPP, DE) Transport and Tourism; Industry, Research and Energy
Federal Ministries:	Economic Affairs and Climate (leading)
Committees of the German Bundestag:	Climate Protection and Energy (leading)
Decision-making mode in the Council:	Qualified majority (acceptance by 55% of Member States which make up 65% of the EU population)

3 Formalities

Legal competence:	Art. 192 TFEU (Environment and Climate Protection) Art. 194 TFEU (Energy) and Art. 114 AEUV (Internal Market)
Type of legislative competence:	Art. 4 (2) TFEU (Shared competence)
Procedure:	Art. 294 TFEU (Ordinary legislative procedure)

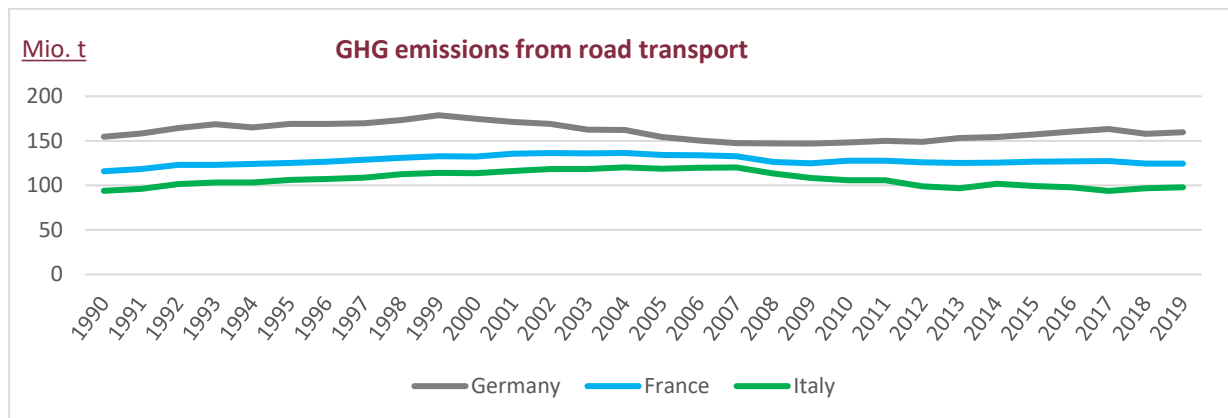
C. GHG emissions from Road Transport in the EU

Fig. 1: GHG Emissions in Sectors Not Covered by the EU ETS I (Effort-Sharing Sectors)



Source: Eurostat¹

Fig. 2: GHG Emissions From Road Transport

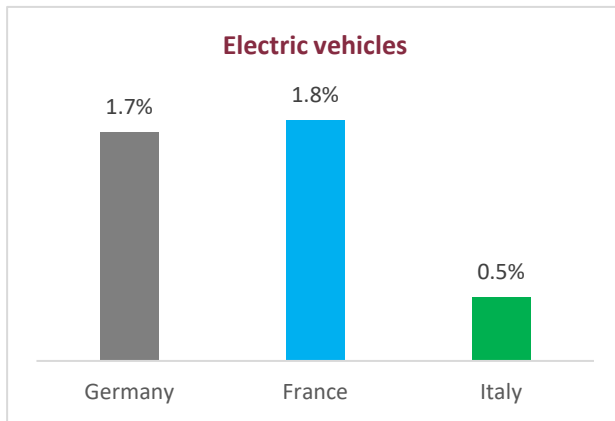


Source: Eurostat²

¹ Eurostat (2021), GHG emissions according to source sector, Data code: [ENV_AIR_GGE](#).

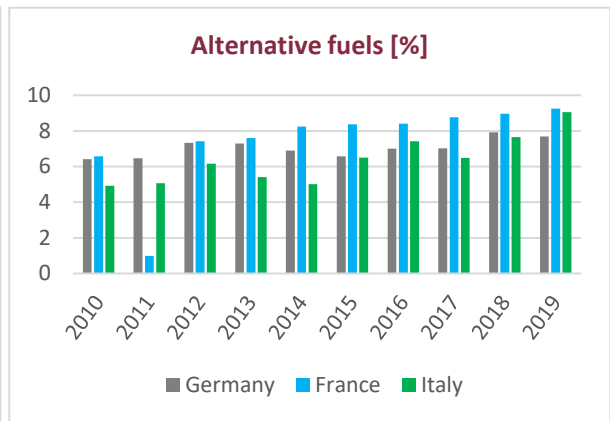
² Ibid.

Fig. 3: Proportion of Electric Vehicles (2019)



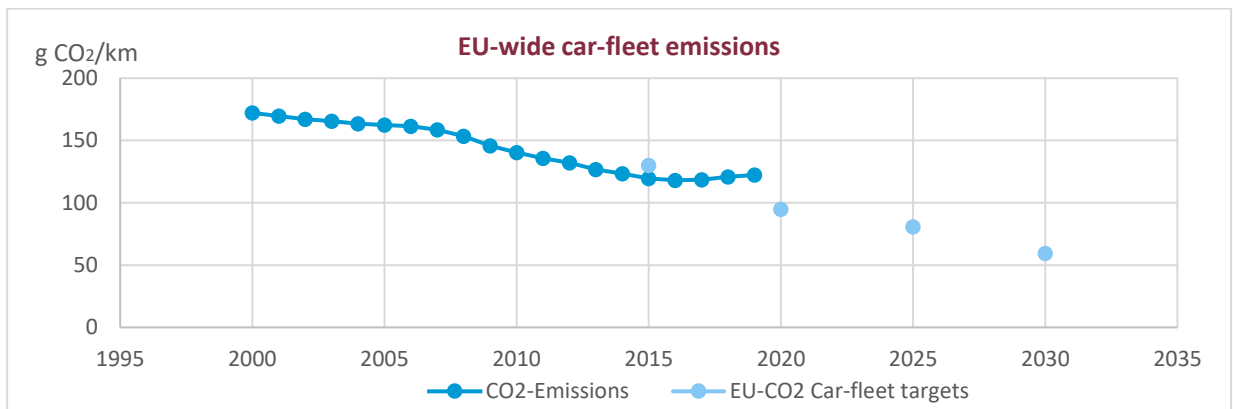
Source: Eurostat³

Fig. 4: Proportion of Alternative Fuels



Source: Eurostat⁴

Fig. 5: Average CO₂ Emissions of the EU Car Fleets



Source: European Environment Agency EEA⁵

³ Eurostat (2021), New registrations of passenger cars by type of motor energy, data code: [ROAD_EQR_CARPDA](#).

⁴ Eurostat (2022), Share of energy from renewable sources, data code: [NRG_IND_REN](#).

⁵ EEA – European Environment Agency (2021), CO₂ Performance of new passenger cars in Europe, [Fig. 1](#).

D. Perspectives of Individual Member States

1 German Perspective

The “traffic light coalition” agreement of 7 December 2021 between the three parties forming the German government, SPD, Greens and FDP, is counting on an “increasing CO₂ price as an important instrument” – combined with “substantial social compensation” and announces support especially for low-income households.⁶ At EU level, it is committed to “the creation of a second emissions trading system for the heating and mobility sectors” (EU ETS II), whilst advocating that “social compensation must be provided in the respective EU Member States”.⁷ Looking ahead, there should be a common EU ETS covering all sectors in the 2030s “which avoids an unfair distribution of the burden to the detriment of consumers”.⁸ In addition, the coalition agreement announces to check the compatibility of the the German Fuel Emissions Trading Act which also covers GHG emissions from the use of fuels in small industrial installations with a possible EU ETS II and adapting it where necessary in order to “ensure as smooth a transition as possible”.⁹

The government parties accept the proposal that from 2035 only CO₂-neutral cars and vans can be registered in the EU¹⁰; advocate a further tightening of CO₂emission standards for heavy duty vehicles; support the EU Commission’s proposals for the deployment of recharging and refuelling facilities for lorries¹¹ and are pushing for ambitious expansion targets for charging infrastructure for cars at EU level.¹²

2 French Perspective

At the Environment Council meeting on 6 October 2021, the French Environment Minister Barbara Pompili referred to grave French concerns about the EU ETS II, principally as regards the danger that energy prices will increase for households without there being a clear idea of the likely evolution of CO₂ prices.¹³ The French government is therefore calling for a clearer picture and more detailed analysis of the volatility of the CO₂ price and of the alternatives. Furthermore, social acceptance must be ensured by way of financial support. The declaration by the French Ministry of Environment following the publication of the “Fit for 55” climate package, confirms this view and the French desire for “social justice and solidarity to remain at the heart of measures to mitigate climate change”.¹⁴ It underlines France’s “reservations” regarding the relevance of the EU ETS II and the cost burden for households and small businesses. However, it may be that, as from June, following the French presidential and parliamentary elections, France and Germany will endeavour to reach agreement on the implementation of both the CO₂ border adjustment mechanism (CBAM) and the EU ETS II.¹⁵

The French MEP Pascal Canfin – Renew Europe, Chair of the ENVI Committee – strongly opposes the EU ETS II proposal. He emphasised his general support for the “Fit for 55” climate package but described the EU ETS II as “politically suicidal” – based on the French experience with the “gilets jaunes” (“yellow vest”) protesters.¹⁶ French MEPs from other political groups also expressed doubts about the EU ETS II proposal: Agnès Evren (PPE) observed that the Social Climate Fund would protect the most vulnerable households but not the middle class, whilst Philippe Lamberts (ALDE) was concerned about the size of the Social Climate Fund and “social imbalances”.¹⁷

⁶ Koalitionsvertrag 2021–2025 zwischen der Sozialdemokratischen Partei Deutschlands (SPD), BÜNDNIS 90/DIE GRÜNEN und den Freien Demokraten (FDP) of 7 December 2021 [[Koalitionsvertrag \(2021\)](#)], para. 2033–2035.

⁷ Ibid., para. 2040–2042.

⁸ Ibid., para. 2042–2044.

⁹ Ibid., para. 2052–2055.

¹⁰ Ibid., para. 1653–1654.

¹¹ Ibid., para. 1678–1680.

¹² Ibid., para. 1675–1676.

¹³ Environment Council of 6 October 2021, [Fit for 55 – Exchange of views](#), <https://video.consilium.europa.eu/event/en/24960>.

¹⁴ Ministère de la Transition Écologique (2021), « [Fit for 55](#) » : un nouveau cycle de politiques européennes pour le climat.

¹⁵ Le Monde of 20 October 2020, [L’Europe se divise sur l’élargissement du marché du carbone](#); L’Opinion of 9. August 2021, [Ecologie politique: la méthode Canfin](#).

¹⁶ Euractiv of 29 June 2021, [Planned EU carbon market reform is ‘politically suicidal’, warns French MEP](#); Le Monde, 14 July 2021, [Transports, chauffage, importations... Bruxelles présente douze propositions de loi pour le climat](#).

¹⁷ Euractiv of 16 July 2021, [France sceptical about extending carbon pricing to buildings, transport](#).

E. Assessment

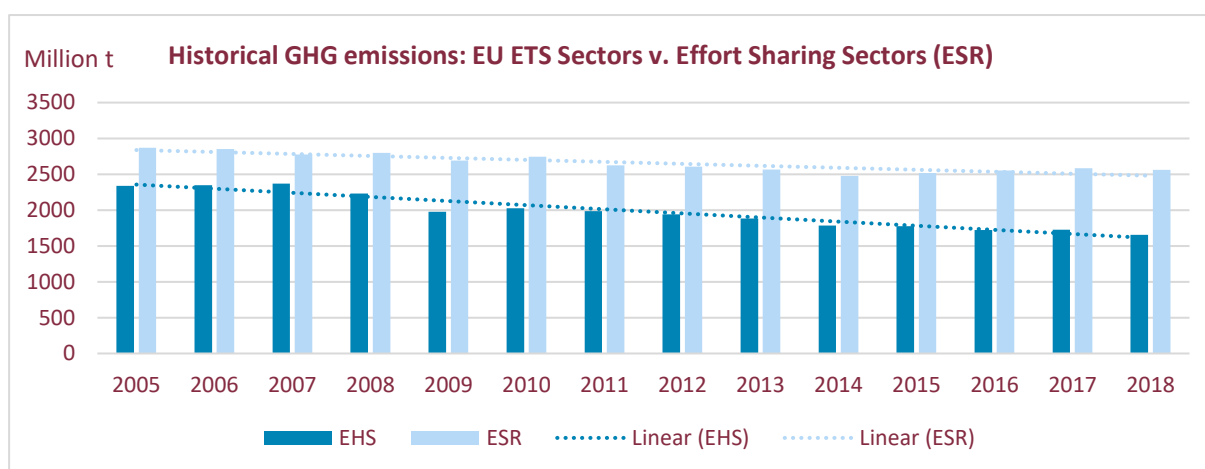
1 Economic Impact Assessment

1.1 Emission Trading as an Effective and Efficient Instrument

With the EU ETS I, the EU opted for an effective and efficient instrument for reducing greenhouse gas emissions: By setting an overall emissions limit (cap) that is reduced over time, GHG emissions are being effectively reduced. The tradability of ETS allowances (trade) leaves it up to market participants to find out where GHG reductions can be achieved cost-effectively at the lowest cost – among the technologies currently available (“static efficiency”)¹⁸.

This can be illustrated by comparing the various GHG reduction rates and the various implied abatement costs of the current EU ETS sectors with sectors that are currently not covered by the EU ETS – in particular road transport, buildings, agriculture and waste management, which are currently governed by the Effort Sharing Regulation [(EU) 2018/842; Effort Sharing Regulation, ESR]¹⁹ (effort sharing sectors). Whereas, between 2005 and 2008, an EU ETS allowance price – which represents the marginal abatement costs in the EU ETS sectors – of between €5 and €25 per tonne of CO₂, resulted in a 29% reduction in GHG emissions, the effort sharing sectors only achieved an overall GHG reduction of 11% over the same period (see Fig. 6). In the road transport sector (see Fig. 1), almost no reduction in GHG emissions could be achieved despite the high abatement costs arising e.g. from CO₂ emission performance standards and subsidies. Thus, in Germany, the reduction of one tonne of CO₂ from using a compact class battery-electric company car, including private use, involves a subsidy of approx. €2400.²⁰ In the US car industry, which is subject to less stringent emission standards than the EU, abatement costs for one tonne of CO₂ range between 60 and 380 USD.²¹

Fig. 6: Historical GHG Emissions (2005–2018)



Source: European Environment Agency (EEA) ²²

¹⁸ By contrast with “static efficiency”, which describes the cost-effective improvement of existing baseline conditions – e.g. CO₂ reduction with a given technology – “dynamic efficiency” also concerns the efficient implementation of new processes – e.g. CO₂ reduction with technologies that have yet to be developed. Ghemawat, P. / Ricart Costa, J. E. (1993), The organizational tension between static and dynamic efficiency, *Strategic Management Journal*, 14, pp. 59–73.

¹⁹ Bonn, M. / Reichert, G. (2018), Climate Protection Outside the EU ETS, [cepInput 04/2018](#).

²⁰ Weimann, J. (2021), [CO₂-Preise und Kosten der CO₂-Vermeidung bei Anwendung ordnungsrechtlicher Maßnahmen im Vergleich zur Erweiterung des EU-ETS](#), Kurzgutachten im Auftrag der Freien Demokratischen Partei, p. 22.

²¹ Gillingham, K. / Stock, J. H. (2018), [The Cost of Reducing Greenhouse Gas Emissions](#), *Journal of Economic Perspectives*, 2018, 32 (4), pp. 53–72.

²² EEA – European Environment Agency (2019), ETS, ESD, LULUCF and aviation emission trends and projections, 1990-2035, [Table 1](#).

The proposed EU Emissions Trading System for the Road Transport and Buildings Sectors (EU-ETS II) applies the effective and efficient instrument of emissions trading to the road transport sector, where emissions have hardly been reduced since 2005.²³ Thus, transport-specific CO₂ emissions – together with the emissions from buildings – will also be effectively limited by the total number of EU ETS II allowances. Here too, the trade in emission allowances will ensure that CO₂ emissions are reduced where the costs are lowest – between the two sectors covered by the EU ETS II.

From an efficiency perspective, the inclusion of road transport and buildings in the EU ETS I could be preferable to a separate EU ETS II, as the abatement costs between all sectors participating in the expanded EU ETS I would then be equalised, so that the most efficient GHG abatement measures in the static sense could be chosen in order to comply with the overall GHG cap.²⁴

However, there are two arguments in favour of a separate ETS: Firstly, the higher abatement costs in the road transport and buildings sectors would make these sectors net buyers of allowances and drive up the allowance prices in the extended EU ETS I, which industrial installations would then be faced with if they do not receive sufficient allowances free of charge. Where these installations are in international competition with companies that do not have to bear carbon mitigation costs, the higher allowance prices in the EU ETS I increase the risk of carbon intensive production being relocated to third countries with less stringent climate policies (carbon leakage). This additional cost pressure, resulting in the risk of carbon leakage, can, however, be avoided by separating the two ETSs, at least temporarily. Secondly, the reduction in the consumption of fossil fuels in the transport sector would also reduce other environmental problems, such as pollutant emissions that have negative effects on human health or cause damage to building façades; it may also reduce other “external effects” such as noise, traffic congestion and soil sealing if there is an overall reduction in traffic.²⁵ It may therefore be appropriate to begin with a separate ETS that actually ensures not only an overall reduction of CO₂ but also a reduction in the road transport sector.

Looking ahead, if the emissions reductions in the transport sector are achieved to a large extent by electric vehicles or alternative fuels and the switch to less polluting modes of transport reaches its limits, the argument regarding concurrent pollutants will no longer be valid. Then it will be less advantageous to force emission reductions in the road sector at higher costs than in other sectors. Hopefully, by then, the competitive environment of industries at risk of relocating their CO₂ emissions will also have improved because the pricing of CO₂ emissions will have become more widespread in third countries or more effective measures will be taken regarding the relocation of carbon emissions. In the medium to long term, both emissions trading systems should therefore be integrated in order to benefit from the efficiency gains of a uniform price for emission allowances which will adjust abatement costs for a larger number of sectors.

In the meantime, the EU ETS II will affect the supply of and demand for fuels as follows: As companies placing fuels on the market have to purchase EU ETS II allowances for the emissions contained in their fuels (“upstream” emissions trading), they have an incentive to supply alternative fuels with a lower CO₂ content or to blend their fossil fuels with alternative fuels – be they conventional or advanced biofuels or synthetic fuels.²⁶ In addition, the decline in demand for fossil fuels will be brought about by shifting the cost of EU ETS II allowances to fossil fuel prices (“pass-through”). This will encourage people to choose lower-carbon transport and to drive more fuel-efficiently.²⁷ A higher fuel price will increase competitive pressure on vehicle manufacturers not only to increase fuel efficiency – and thus CO₂ emissions – per km in all vehicle classes, but also to offer more smaller, lighter and more fuel-efficient vehicles. It will also provide an incentive for transport users, to buy e.g. vehicles with alternative propulsion methods and fuels or to switch to other modes of transport. As rising allowance prices shorten the payback period of low- and zero-emission vehicles, their acquisition does not need to be subsidised to make it cost-effective. The falling cap also counteracts so-called “rebound-effects”²⁸. These occur when higher fuel efficiency reduces fuel costs per km and, in view of these savings, mileage increases or larger, heavier and

²³ An earlier proposal to create a separate ETS for road transport can be found in Menner, M. / Reichert, G. (2016), Low Emission Mobility, [cepPolicyBrief 30/2016](#); for a separate ETS for road transport and buildings see Menner, M. / Reichert, G. / Voßwinkel, J. S. (2019), Wirksame CO₂-Bepreisung – Jetzt die Weichen richtig stellen!, [cepStudie 2019](#).

²⁴ For a comprehensive analysis of this see Nader, N. / Reichert, G. (2015), Extend the EU ETS! Effective and efficient GHG emissions reduction in the road transport sector, [cepInput 05/2015](#).

²⁵ On external effects cf. EU Commission – DG Mobility and Transport, Essen, H. et al. (2020), [Handbook on the external costs of transport: version 2019 – 1.1](#).

²⁶ Schwind, S. / Reichert, G. (2022), Fit for 55: Renewable Energies, [cepPolicyBrief 1/2022 Long Version](#), p. 11.

²⁷ Menner, M. / Reichert, G. (2018), CO₂ Limits for Cars and Light Commercial Vehicles, [cepPolicyBrief 02/2018](#).

²⁸ On definition and manifestations of the rebound effect in general cf. BMWI (2016), Energy Efficiency Green Paper, p. 20.

more powerful cars are driven in a less fuel-efficient manner.²⁹ In addition, by influencing mileage and driving behaviour, the entire vehicle fleet will be contributing to CO₂ reduction. This is in contrast to CO₂ emission standards for road vehicles (“CO₂ fleet targets”), which only relate to potential CO₂ emissions from new vehicles and do not in themselves lead to fuel-efficient and thus lower carbon driving behaviour. Overall, the EU ETS II restricts the freedom of choice of market operators far less than strict CO₂ fleet targets because since it provides more incentive to reduce emissions than just simply buying expensive electric vehicles. The EU ETS II should therefore become the main instrument of CO₂ reduction in road transport rather than being merely supplementary.

1.2 Supply of Allowances and Price Dynamics

The level and dynamics of the CO₂ price and thus the fuel price confronting transport users depend crucially on the relationship between supply and demand for EU ETS II allowances. As the supply of allowances via auctions will at first be 30% higher than the envisaged cap, additional market liquidity will be provided. However, it is unclear whether allowance prices will actually be a moderating influence at the beginning of the EU ETS II than in later years when the additional allowances are deducted and the LRF of around 5% per year is applied. The reason for this is that forward-looking market players, who are obliged to surrender EU ETS II allowances, will do everything they can to hedge against future price risks and stock up on potentially cheap allowances, which would already drive up prices in the early years of the EU ETS II.³⁰

Establishing a separate Market Stability Reserve (MSR II) for the EU ETS II will also shape its price dynamics – through changes in the quantity of allowances available when allowances are placed in or released from the MSR II – and may reduce large-scale price fluctuations over time. This will reduce volatility, increase the predictability of price trends and protect transport users and households from excessive price rises. However, whether the release of allowances up to three months after the trigger level has been reached, really can stop or reverse an “excessive” price rise, is doubtful. A faster response would probably be desirable because rapidly rising allowance prices, which will be passed on to fuel prices, would primarily burden weaker road users who will only receive compensation for rising mobility costs – if at all – with a considerable delay. For many, a delayed response would come too late.

1.3 Use of Auction Revenues and Social Climate Fund

The use of auction revenues and the design of the Social Climate Fund are likely to be crucial for a broad acceptance of the EU ETS II among the population and thus for the chances that their representatives in the European Parliament and the Council accept the legislative proposal to introduce it. It is argued that the price increases for fossil fuels will hit the weakest transport users – and households struggling to manage their energy costs for heating and cooling (“vulnerable households”) – and could lead to fierce resistance and even social unrest similar to the “gilets jaunes” demonstrations in France 2018/2019³¹.

However, neither the envisaged use of auction revenues nor the design of the Social Climate Fund will satisfactorily solve the problem of social acceptance or adequately protect vulnerable households and road users (“target groups”). Firstly, the Commission wants to use an as yet unspecified part of the auction revenues to create “own resources” for the general EU budget, which it can spend itself – among other things for climate change mitigation and the Social Climate Fund. These EU own resources are not available to Member States to reduce competition-distorting taxes – including social security contributions – or to provide financial support for low and middle-income transport users, on their own terms. Secondly: Even if Member States decide to use part of the Social Climate Fund for “direct income support”, they will be faced with very restrictive conditions because direct income support is only allowed for vulnerable transport users and must be strictly justified by quantitative evaluations of their regional distribution and the way in which vulnerability will be reduced; in addition, support must be on a diminishing scale and for a limited time. This restricts the use of these funds and prevents Member States from using them for lump-sum transfer programmes. Thirdly, a considerable part of the Social Climate Fund must be spent on initiatives set out in their SCPs for decarbonising road transport and the buildings sector,

²⁹ On the rebound effect in German road transport cf. Frondel, M. / Peters, J. / Vance, C. (2009), Fuel Efficiency and Automobile Travel in Germany: The Rebound Effect, in: Herring, H. / Sorell, S. / Elliot, D. (eds.), Energy Efficiency and Sustainable Consumption – The Rebound Effect, pp. 47–66.

³⁰ See similar reaction in EU ETS I by energy and steel producers: Handelsblatt, 4 October 2021, [Cleverer Klimaschutz: Auch die Stahlbranche hat sich gegen die CO₂-Preis-Rally abgesichert](#).

³¹ Hanafi, O. / Jousseume, M. / Menner, M. / Reichert, G. / Schwind, S. (2019), Carbon Pricing in France & Germany, [cepStudy 11/2019](#); Hanafi, O. (2020), Energy Taxation in France, [cepInput 9/2020](#).

such as e.g. subsidising zero-emission vehicles, the construction of recharging and refuelling facilities for alternative fuels and the decarbonisation of heating and cooling. Not all members of the target groups will benefit from these measures, however, and will thus be increasingly subject to rising fuel prices without being able to use low-emission mobility alternatives. They may perceive subsidies in favour of others for financing alternatives as unfair and reject the EU ETS II. Fourthly: The Commission itself already fears corruption, fraud and conflicts of interest with regard to the Social Climate Fund. As large sums of public money are in themselves conducive to unlawful conduct such as fraud, corruption and abuse of power, it would be better not to set up a Social Climate Fund with huge financial resources at all, since its misuse is virtually impossible to prevent even with the proposed complex and bureaucratic requirements for the SCPs.³² Finally, in the event of a sharp increase in allowance prices, the fixed budget of the Social Climate Fund will not be compatible with reasonable compensation for the affected transport users because then the estimated 25% in auction revenues will not be reached and compensation will be insufficient.

It is therefore preferable (a) not to use the EU ETS II auction revenues for the EU budget's own resources, (b) to transform the Social Climate Fund into a pure transfer system between Member States by abandoning the bureaucratic SCPs and (c) to oblige Member States to use at least a substantial proportion of the EU ETS II auction revenues for direct income support – preferably through lump-sum transfers that may be taxed, subject an exempt amount, if necessary.³³

The likelihood that the respective EU ETS II allowance price will trigger greater CO₂ emission reductions in lower-income Member States – because their transport users will get a relatively stronger price signal – will lead to a lower demand for allowances as compared with the quantity of allowances allocated for auction in these countries and established on the basis of their share of emissions in the period 2016-2018. Thus, if their population reaps the “low-hanging fruit” of decarbonisation, this will not only be efficient; the relevant Member States may also achieve additional revenue from the demand for allowances from foreign companies in other EU countries, which they will be able to use to further relieve their citizens of costs arising from the EU ETS II.

For reasons of social justice, initiatives to overcome so-called “market barriers” – such as information problems or a lack of charging and refuelling infrastructure for alternative fuels – are better financed from the national budgets of the Member States than from auction revenues. This is because carbon pricing places a greater burden on low- and middle-income groups than on high incomes (“regressive effect”)³⁴, whereas the national budgets are largely financed by income tax where the tax rate increases according to income (“progressive” income tax). Financing the budget through taxes is therefore less “regressive” than carbon pricing. Member States can then use the revenues from carbon pricing to counteract its regressive effect.³⁵

1.4 Energy Tax

Taxing energy products according to their energy content and tiered according to the CO₂ emissions which they release, offers additional leverage to make fossil fuels more expensive than alternative fuels and for creating incentives for CO₂ reductions: Whereas the EU ETS II allowance price only works through the mark-up on the current fuel prices – including energy taxes –, aligning energy taxes with CO₂ content will also change the relative prices of fossil and alternative fuels within the energy tax component of current fuel prices thus creating additional incentives to reduce fossil fuel consumption. However, the proposed EU-wide minimum tax rates will only achieve this CO₂-alignment to a limited extent. Particularly, the reduction of tax rates for sustainable biofuels and gas only go part way towards a full tax exemption because the minimum tax rates are not reduced to zero but only to half of the tax rate for fossil fuels. If sustainable biofuels derive from food and feed crops, the reduction is only temporary and degressive. This misses the opportunity to give carbon pricing greater leverage by not only influencing the behaviour of transport users by passing on the cost of emission allowances to fuel end prices, but also by changing the relative costs within the tax components of the fuel prices. Until the costs of sustainable biofuels fall to a level at which they can compete with fossil fuels, or the latter have virtually disappeared from the market, the energy tax rate for these biofuels should be (almost) zero. From then on, Member States could increase tax rates to raise revenue and incentivise efficient and economical fuel consumption.

³² OECD (2019), [Fraud and corruption in European structural and investment funds](#).

³³ On this see also Held, B. / Leisinger, C. / Runkel, M. (2022), [Criteria for an effective and socially just EU ETS 2](#).

³⁴ Umweltbundesamt (2019), CO₂-Bepreisung in Deutschland, Ein Überblick über die Handlungsoptionen und ihre Vor- und Nachteile, p. 7.

³⁵ KlimaAllianz Deutschland (2022), Machbarkeitsstudie zur Klimaprämie: Zivilgesellschaft fordert zeitnahe Einführung, [Press release](#).

Indexing minimum energy taxes is an important step as otherwise the incentive to save energy that is offered by energy taxes will diminish over time. This was the case with the so-called “eco-tax” introduced in Germany in 1999, which has not been adjusted since 2003 and has had an ever-diminishing effect on behaviour.³⁶

1.5 CO₂ Fleet Targets for Road Vehicles

Even stricter CO₂ fleet targets for cars, vans and lorries are much less effective than an emissions trading system as they do not take account of the actual annual mileage. They cannot meaningfully replace the introduction of the EU ETS II because they offer no guarantee that CO₂ emissions in the road transport sector will be reduced to the desired degree: A CO₂ fleet target does provide an incentive to produce more fuel-efficient vehicles that emit less CO₂ per kilometre. However, the aim of the Commission proposal, to reduce fuel costs by way of more efficient engines, may be counter-productive in that it fails to counteract the trend towards heavier and more powerful vehicles which has been putting a strain on the CO₂ balance since 2014 (see Fig. 5)³⁷. The problem is exacerbated by the fact that a reduction in fuel consumption with resulting cost savings often leads to an increase in actual miles driven (“rebound effect”). This also casts doubt on whether CO₂ emissions will fall as desired if they are not effectively limited by the EU ETS II cap. Too little CO₂ reduction would then have to be compensated for by even stricter CO₂ fleet targets.

In addition, strict CO₂ fleet targets for cars, vans and lorries are also unnecessarily expensive and no longer technology-neutral because they can only be achieved by a high proportion of plug-in hybrid and electric vehicles: Increases in the fuel efficiency of combustion engine vehicle in order to come close to the even stricter CO₂ fleet targets will come up against technical limits and cause high CO₂ avoidance costs. In the case of plug-in hybrid vehicles, the expected CO₂ savings are often only on paper: Firstly, because they depend on the driving style and, in particular, on how much the vehicles are actually driven electrically. Secondly, it is likely that the trend towards heavier and more powerful vehicles will continue, especially in the case of plug-in hybrids. Thirdly, reductions in driving costs, as a result of efficiency improvements or driving electrically, are also likely to favour higher overall mileage (“rebound effect”).

The de facto ban on the internal combustion engine due to the zero emission target in 2035 lacks justification by the Commission and must be rejected on ordoliberal grounds. In contrast to battery-powered electric or fuel cell vehicles, combustion engines, that use alternative fuels, may in special applications result in a more cost-efficient full reduction of “well-to-wheel” emissions, i.e. the CO₂ emissions from the extraction of the energy source to the transmission of power to the wheels. This could potentially be achieved in combination with electric engines as serial or parallel hybrids. In addition, in the markets of emerging and developing countries which (a) cannot or do not want to decarbonise their transport sector so quickly, and which (b) have abundant natural resources to produce wind or solar energy at low cost, or as in the case of Brazil, to produce bioethanol, combustion engines will be in demand long after 2035. There is therefore a threat that the production of vehicles with internal combustion engines, including research and development, will be relocated away from the EU with no corresponding global climate benefit to be achieved from this damage to Europe as a business location with its highly developed automotive and ancillary industries.

On the other hand, unchanged CO₂ fleet targets in combination with CO₂ pricing by way of the EU ETS II would continue to leave room for research and development in more cost-effective efficiency improvements in vehicles with combustion engines which could in the medium term – here or elsewhere in the world – make more economical use of alternative fuels and give many suppliers, including those in the EU, a better economic outlook.

Nor will the competitiveness of the automotive industry in the EU be strengthened by CO₂ fleet targets or the promotion of low-emission vehicles. Strict CO₂ fleet targets in California and China’s New Energy Vehicle (NEV) mandate³⁸ for electrically powered cars are also incentives for EU manufacturers who want to maintain access to these markets.³⁹ However, if as a result of the EU fleet-wide regulation and insufficient demand for electric vehicles in the EU internal market, manufacturers have lower profit margins, they will have a weaker position on the global market than competitors from third countries who rarely supply to the EU.

³⁶ DIW – Deutsches Institut für Wirtschaftsforschung (2019), 20 Jahre ökologische Steuerreform, [Wochenbericht 13/2019](#).

³⁷ EEA – European Environment Agency (2021), [CO₂ performance of new passenger cars in Europe](#).

³⁸ International Council on Clean Transportation (2018), China’s New Energy Vehicle Mandate Policy (Final Rule), [Policy Update](#).

³⁹ European Commission (2017), Proposal COM(2017) 676 of 8 November 2017 for a Regulation setting emission performance standards for new passenger cars and for new light commercial vehicles, p. 1.

1.6 Renewable Fuels

The obligation on fuel suppliers to reduce the GHG intensity of their fuels supplied to the EU transport sector, by at least 13% by 2030, is more likely to enable conformity with the EU 2030 Climate Target than current energy-related target figures. In addition, dispensing with multipliers and establishing a market for credits for the supply of electricity from renewable energy sources to public filling stations, will create balanced incentives for the supply of those alternative fuels that reduce the GHG emissions of a supplier's fuel mix most efficiently.

1.7 Alternative Fuels Infrastructure

Deployment of charging and refuelling infrastructure for alternative fuels at specific intervals along the TEN-T network is not only appropriate for vans and lorries but also for cars as the TEN-T network is crucial for the cross-border transport of freight and of passengers travelling for professional reasons in the EU internal market. Although the population in rural areas may not use the infrastructure as intensively as in densely populated urban areas, it is important for road users in the internal market to have access to sufficient alternative fuel infrastructure everywhere in the EU so that they can switch to alternatives to fossil fuel vehicles reliably and without needing to worry about range. Without sufficient charging infrastructure the necessary ramp-up of electromobility cannot take place and the automotive industry itself will not be able to even meet the current CO₂ fleet targets in the future.

At the same time, the obligation of neighbouring Member States to ensure that the maximum distances for charging and refuelling stations on cross-border sections of the TEN-T network are not exceeded, is essential for a close-knit infrastructure network.

2 Legal Assessment

Unproblematic. The EU can take the environmental and energy policy measures for protection of the environment (Art. 192 (1) (c) and Art. (194) TFEU). In addition, uniform EU-wide CO₂ fleet targets for road vehicles will serve to ensure the functioning of the internal market [Art. 114 TFEU].

F. Summary

The proposed separate emissions trading system for road transport and buildings (EU ETS II) ensures that this effective and efficient instrument of emissions trading also applies to the road transport sector. From an efficiency point of view, the inclusion of road transport and buildings in the EU ETS I might be preferable to a separate EU ETS II. However, two reasons support a separate ETS: The higher abatement costs in the road transport and in the buildings sector would drive up the price of allowances in the extended EU ETS I, which industrial installations would then be faced with; this additional cost pressure leading to an increased risk of carbon leakage can be avoided by at least temporarily separating the two EU Emissions Trading Systems. Reducing the use of fossil fuels in transport would also reduce environmental problems such as pollution and other "external effects". It is therefore appropriate to begin with a separate ETS that actually ensures a reduction of CO₂ emissions in the road transport sector. Perspectives, both EU emissions trading systems should be combined.

By way of upstream emissions trading, companies that place fuels on the market have an incentive to supply alternative fuels with lower CO₂ content or to mix their fossil fuels with alternative fuels. Shifting the cost of EU ETS II allowances onto fossil fuel prices ("pass through") will encourage people to choose lower-carbon transport and a more fuel-efficient way of driving. The decreasing cap also counteracts "rebound effects" and the entire vehicle fleet will contribute to CO₂ reduction. The EU ETS II should therefore become the main instrument of CO₂ reduction in road transport rather than being merely supplementary.

Establishing a separate Market Stability Reserve (MSR II) for the EU ETS II may reduce large-scale price fluctuations over time, increase the predictability of price trends and protect transport users and households from excessive price increases. In the event of sharp price rises, however, it should react more quickly than suggested.

The use of auction revenues and the design of the Social Climate Fund are crucial for the acceptance of the EU ETS II among the population. It is therefore preferable not to use the EU ETS II auction revenues for the EU budget's own resources, to transform the Social Climate Fund into a pure transfer system between Member States by abandoning the bureaucratic SCPs and to oblige Member States to use at least the bulk of the EU ETS II auction revenues for direct income support. For reasons of social justice, it is better to finance initiatives to overcome so-called "market barriers" from the national budgets of the Member States.

Taxing energy products according to their energy content and tiered according to CO₂ emissions, offers additional leverage to make alternative fuels cheaper than fossil fuels and for creating incentives for CO₂ reductions, however, the reduction in tax rates for sustainable biofuels does not go far enough. Indexing minimum energy taxes is an important step as otherwise the incentive to save energy that is offered by energy taxes will diminish over time.

Even stricter CO₂ fleet targets for cars, vans and lorries do not provide any guarantee that CO₂ emissions in the road transport sector will be reduced to the desired degree: A CO₂ fleet target may be counter-productive by reinforcing the trend towards heavy or powerful vehicles and leading to an increase in actual mileage ("rebound effect"). In addition, strict CO₂ fleet targets are unnecessarily expensive and not technology-neutral. The de facto ban on the internal combustion engine due to the zero emission target in 2035 lacks justification and must be rejected on ordoliberal grounds. Combustion engines with alternative fuels may lead to a more cost-efficient complete reduction of "wheel-to-wheel" emissions in special applications. Furthermore, in the markets of emerging and developing countries, combustion engines will be in demand long after 2035. There is therefore a threat that the production of vehicles with internal combustion engines, including research and development, will be relocated away from the EU – with no corresponding global climate policy benefit being achieved from this damage to Europe as a business location with its highly developed automotive and ancillary industries. On the other hand, unchanged CO₂ fleet targets in combination with carbon pricing by way of the EU ETS II would continue to leave room for research and development in more cost-effective efficiency improvements in vehicles with combustion engines which could make more economical use of alternative fuels – worldwide.

Deployment of charging and refuelling infrastructure for alternative fuels at specific intervals along the TEN-T network is appropriate. Without sufficient charging infrastructure the necessary ramp-up of electromobility cannot take place and the automotive industry itself will not meet even the current CO₂ fleet targets in the future. At the same time, the obligation of neighbouring Member States to ensure that the maximum distances for charging and refuelling stations on cross-border sections of the TEN-T network are not exceeded, is essential for a close-knit infrastructure network.