

Climate Strategy 2050

Legal Approaches for a System Equitable Transformation

Statement for the
German Association of the Automotive Industry

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Climate Strategy 2050 – Legal Approaches for a System Equitable Transformation

On behalf of the German Association of the Automotive Industry (VDA), we examined from a legal perspective which regulatory instruments should preferably be used to achieve the EU's 2050 climate neutrality target in the transport sector. Our thoughts focus on a long-term (esp. 2030 to 2050) and system equitable transformation of the climate regulation in the transport sector.

1. Summary

- The introduction of a **European emissions trading system for the transport sector** (EU ETS 2) represents the most effective, cost-efficient and freedom-preserving regulatory instrument for achieving climate neutrality by 2050. In contrast, a mere tightening of the existing regulatory instruments (especially fleet limits and biofuel quotas) is less promising.
- The practical challenges of introducing an EU ETS 2 appear **generally manageable**. Emissions trading systems present numerous design options with which path dependencies can be addressed and objections can be countered.
- The basic decisions of the German Fuel Emissions Trading Act (Brennstoffemissionshandelsgesetz – BEHG) could serve as a “**blueprint**” for the design of an EU ETS 2 for the transport sector. Like the BEHG, the EU ETS 2 would also oblige the distributors of fuel (upstream approach). This can be done in parallel with existing regulations during the introduction phase. However, the EU ETS 2 should become the new **lead instrument** and assume an **umbrella function**, so that the existing regulations only have a complementary effect.
- In the long term, the EU ETS 2 should be merged with the existing EU ETS to form **one emissions trading system covering all sectors**, in order to maximize the efficiency of achieving the climate targets. In view of different CO₂ avoidance costs, a gradual alignment of CO₂ prices and thereby transitional justice for the energy and industry sector could be ensured by **membrane structures**.

2. Background and description of the problem

The European Union (“EU”) is to be transformed into a climate-neutral economic area by 2050. To this end, the EU Commission will submit proposals by June 2021 that will once again fundamentally change the regulation of all CO₂ intensive sectors. This applies in particular to the transport sector, where the existing regulatory instruments are already failing to meet the climate targets set. The transport sector is the only sector whose CO₂ emissions have increased since 1990 (by about 30%). The success

achieved in reducing the fleet consumption (fleet limits) is cancelled out by traffic reality (traffic volume, driving style, fuel supply). One of the declared priorities of the EU Commission is therefore to strengthen the climate efforts of the transport sector.

3. Principles for good regulation

In principle, the EU has broad leeway in deciding how to strengthen the efforts to decarbonize the transport sector. However, any regulatory approach must be measured against the following regulatory principles and ensure their greatest possible realization (optimization requirements).

- **Effectiveness:** Taking into account the technical, economic and social realities, regulatory approaches must actually be able to ensure the reduction of the CO₂ emissions to zero by 2050.
- **Consistency:** Regulatory systems must be designed free of contradictions, in particular with regard to the European multi-level system and interactions with other regulatory instruments. Only then are they suitable for achieving objectives and the restrictions on freedom can be justified.
- **Planning security:** Regulatory approaches must create structures with sustainable *modi operandi*, which can be trusted by stakeholders to continue to exist in principle.
- **Polluter pays principle:** Regulatory approaches must be designed in such a way that the actual polluters of climate and environmental damages are primarily held accountable.
- **Market principle:** Regulatory approaches should be based on market principles to ensure cost efficiency and preservation of individual and entrepreneurial freedom to the greatest extent possible.

4. Mere tightening of the existing regulatory instruments is hardly effective

In our view, a mere tightening of the existing regulatory instruments is hardly effective to achieve the 2050 climate targets. With such measures, the goal of climate neutrality could probably only be achieved if the fleet limits were lowered to zero in the long term. However, lowering the fleet limits to zero would neither be open to different technologies nor sufficiently realize the regulatory principles mentioned above:

- With increasing reductions, the market-based elements of the fleet limits will be cancelled out (openness to technology, pooling). Such an intervention results in **considerable efficiency losses** and the corresponding technologies can prove to be a one-way street.

- The direct polluters of CO₂ emissions must primarily be held accountable. These are the consumers who decide on the specific use of the vehicles, and not the automotive industry. The one-sided focus on lowering the fleet limits to zero would therefore constitute a **serious infringement** of entrepreneurial freedoms.

5. Introduction of the emission trading system is preferable

The introduction of the EU ETS 2 represents a more reliable, cost-efficient and freedom preserving regulatory approach to achieve climate neutrality in the transport sector. The challenges of introducing the EU ETS 2 appear generally manageable. Emissions trading systems (ETS) present numerous design options with which path dependencies can be addressed and objections can be countered. In the long term, the EU ETS 2 should be merged with the existing EU ETS to create a one emissions trading system covering all sectors.

5.1 ETS as state of the art in climate regulation

An ETS is a market based climate instrument. It reduces and internalizes CO₂ emissions through the artificial scarcity (*cap* with annual reduction path) of tradable emission allowances (*cap and trade*). From an environmental economics point of view, an ETS is *the* instrument to achieve climate targets reliably and cost-efficiently. An ETS can best realize the regulatory principles mentioned above. The existing EU ETS has therefore become the most effective and significant climate protection instrument in the EU for good reasons.

- **Ecological accuracy:** The existing EU ETS is the largest CO₂ market in the world, whose actual CO₂ emissions have been below the cap for years. The EU ETS outperforms its climate targets. Even if a moderate allowance price reduces the incentive for additional CO₂ avoidance, it does not affect the reliable reduction of CO₂ emissions, especially since the CO₂ price is currently rising sharply.
- **Comprehensive approach:** Cross-sectoral impact relationships are captured comprehensively, misaligned incentives and nullification effects are avoided.
- **Long-term perspective:** With an annually decreasing cap, the ETS provides a long term reduction path and thus offers planning security.
- **Equitable burden sharing:** An ETS ensures market-based pricing. The costs are imposed on the actual polluter of the CO₂ emissions or, as in an upstream model, passed on in a way that is equitable to the polluter (*polluter pays principle*).
- **Cost efficiency and technology openness:** The more sectors are included in an ETS, the better the optimisation of the CO₂ avoidance costs. How, where and

when the avoidance of CO₂ emissions takes place is subject to the cap and trade mechanism, which is why individual and entrepreneurial freedom is preserved.

5.2 Objections and design capability

Notwithstanding these advantages, concerns have been raised about the introduction of an ETS in the transport sector. The concerns include, *inter alia*, a possible undermining of existing regulatory achievements (fleet limits), the allegedly low incentive effect in the transport sector (due to the high CO₂ avoidance costs), competition for emission allowances with the energy and industry sectors (*beggar my neighbour*), and social implications (“yellow vest” movement).

We do not consider these concerns to be convincing. The ETS is a manmade trading system that can be designed in different ways. This has already been proven by the development of the existing EU ETS, which has been continuously optimized (trial and error) and presently is considered to be the most effective climate instrument in the EU. The regulating levers for designing an ETS for the transport sector are numerous (including relationship with the EU ETS, relationship with existing regulations such as fleet limits, downstream, midstream or upstream approaches, cap and reduction path, price and trade management). These numerous design options strongly suggest that the challenges for the implementation of an ETS for the transport sector are manageable. No sector is per se inaccessible to climate regulation through an ETS. The integration of the aviation sector into the existing EU ETS also proceeded quite smoothly, although it was accompanied by objections similar to those currently raised against an ETS in the transport sector.

5.3 Components of the design of an ETS in the transport sector

The design of an ETS in the transport sector should take into account existing path dependencies and the aforesaid objections. At the same time, the transformation of the transport sector to climate neutrality by 2050 must be ensured in a cost-effective and reliable manner. In this respect, the following components deserve special attention for the concrete design of ETS for the transport sector.

(a) BEHG as the blueprint

With the BEHG, the German legislator provided a **regulatory pitch** for the introduction of an ETS for the transport and heating sector. The BEHG can therefore serve as a blueprint for the introduction of an ETS for the transport sector in terms of basic decisions, especially since the BEHG itself is designed for its transfer to a European ETS.

- An ETS for the transport sector should initially be introduced as a **separate EU ETS 2**, alongside the existing EU ETS. The immediate inclusion in the EU ETS seems politically and practically difficult. In addition, an EU ETS 2 provides greater flexibility to test and optimize regulating the transport sector with market-based instruments. In the long term, however, both emissions trading systems should be merged to maximize efficiency.
- Similar to the BEHG, the EU ETS 2 should oblige the **distributors of fuels and combustibles** (upstream approach). Due to the comparatively small number of distributors in the fuel market and the possibility of linking the obligation to surrender allowances to existing requirements, e.g. energy tax law, the additional administrative effort would be relatively low (practicability). Nevertheless, an equitable burden sharing would be ensured, as the costs for the allowances would be passed on to the subsequent trading levels and ultimately - in line with the polluter-pays principle - to the consumers. In contrast, we consider a direct obligation of consumers (downstream approach) to be impracticable due to the large number of transport users. Similarly, an obligation of automobile manufacturers (midstream approach) does not appear to be effective, as the then required projections for the vehicle use (driving behaviour, mileage, retention period) could miss traffic reality.
- The transport sector has a sufficient climate relevance in order to introduce a **transport sector specific ETS**. Similar to the BEHG, it would be possible to include other sectors, such as the heating sector, which are not yet covered by the existing EU ETS. This would give the EU ETS 2 increased significance, but would probably also add complexity and therewith cause difficulties regarding the introduction. The following regulatory components are therefore limited to an EU ETS 2 (only) for the transport sector.

(b) Cap, Reduction Path und Allocation

Unlike the BEHG, which provides for a fixed price (2021-2025) or a price corridor (2026) and no fixed cap of allowances (at first), the allowance price in the EU ETS 2 should - from the outset – be determined by the market principle of (scarce) supply and demand (*cap and trade*). Otherwise, the EU ETS could be qualified as a CO₂ tax, which would require unanimity of the member states in the Council (Art. 113 TFEUs).

- The **cap-setting** can be based on average historical data on the volumes of fuels distributed. The volumes of fuels distributed are - in member states like Germany - already available for every calendar year in the tax returns for the calculation of the energy tax. On such basis, the average annual volumes of fuels distributed over a period of, e.g., two to three years can be determined. These volumes can then be converted into the respective CO₂ emissions by multiplying them with

standardized calculation factors. For this conversion and the avoidance of double counting with the EU ETS, the requirements of the reporting regulation (*Berichterstattungsverordnung 2022*) issued for the BEHG can serve as a model. To avoid massive price fluctuations and market shocks, the cap should initially be set generously. The reduction path or the market stability reserve can then adjust the cap appropriately.

- Based on the cap and the goal of climate neutrality by 2050, the required annual **reduction path** can be calculated. However, it also seems possible that the EU could set interim targets for the transport sector for 2030 or 2040, which would then also have to be taken into account when calculating the reduction path. A linear design of the reduction path suggests itself, but is not legally mandatory. In principle, flexibility therefore remains possible. For example, the reduction path could take technology jumps into account or be tightened depending on the expansion of alternative charging infrastructures or low-emission vehicles brought onto the market (or comparable conditionalities).
- In an upstream EU ETS 2 the costs for the allowances are ultimately passed on to the consumers on a polluter-pays basis. The allowances should generally be allocated via auctions, as this would otherwise lead to windfall profits for the upstream stakeholders. The **allocation** via auctions corresponds to the (long-term) design of the EU ETS and the BEHG and - in line with the system - ensures increased cost efficiency. In principle, the corresponding provisions for the EU ETS can be adopted for the auctions.

(c) **Complementing existing regulations**

Unlike the existing EU ETS, which in principle, exclusively governs the CO₂ regulation of the covered industrial installations (Art. 9 para. 1 IED), the EU ETS 2 can be designed in such a way that it acts as an overarching regulation complementary to the existing transport sector regulations (**umbrella function**). The BEHG has also been designed as a regulatory instrument that “*together with the additional sector-specific measures*” is intended to ensure that the climate targets are achieved (BT-Drs. 19/14746, p. 2).

- The existing regulations (and the accompanying regulatory achievements) can be maintained for the time being alongside the EU ETS 2 for reasons of effectiveness and credibility of climate regulation. This applies in particular to the **fleet limits** with the aim of further stimulating technological innovations and preserving the level of technology achieved. In addition, it is possible to supplement the existing regulations with credit systems (e.g., between EU ETS 2, RED II and fleet limits) that support the cost efficiency of the EU ETS 2 and promote a sector specific

alignment of the CO₂ avoidance costs (e.g., between fuel distributors and automobile manufacturers).

- The EU ETS 2 converts the goal of climate neutrality into a long-term reduction path. It can therefore mark **climate policy milestones** that can guide complementary regulatory instruments, e.g., set the pace for the scaling up of alternative fuels (RED II) or the expansion of infrastructure for alternative fuels (AFID). At the same time, climate regulation for the transport sector will switch from state intervention (fleet limits) to **market based CO₂ pricing**. In accordance with the reduction path, the EU ETS 2 will ensure a reliable achievement of the goal of climate neutrality by 2050, regardless of the development of the CO₂ price. The fleet limit targets thus retain the technology status achieved as a minimum standard, while additional CO₂ avoidance will be regulated in the future by the EU ETS 2.
- Overall, the EU ETS 2 would compensate the deficits of the existing regulations by addressing the absolute CO₂ emissions and opening up a comprehensive climate regulation of the transport sector (vaulting function). The EU ETS 2 would become the new **lead instrument** for the climate regulation of the transport sector running ahead of existing regulations. After a transition phase, the existing regulations lose importance and could be gradually phased-out. The higher the reduction of state interventions via the existing regulation instruments (**shadow regulation**), the greater the long-term cost effectiveness of the EU ETS 2. However, a certain level of shadow regulation aligned with the EU ETS 2 could promote acceptance, e.g., by preventing price-driving strategies that only focus on the purchase of CO₂ allowances. Fleet limits (via type approval) could still to be used as **flank protection** to ensure which target emissions must be met by the manufacturer's specific fleet.
- When, where and how CO₂ emissions are avoided would thus be increasingly determined by the market based cap and trade mechanism of the EU ETS 2 and the price signals transmitted along the value chain. The stakeholders could use the cap to plan long term and pursue the technology paths that appear most advantageous. This creates **planning certainty**, preserves entrepreneurial freedoms and, in particular, could uphold the **technological flexibility** needed to ensure the transformation of transport sector to climate neutrality.

(d) **Avoidance of social hardship**

Climate protection costs money. The introduction of an EU ETS 2 may lead to considerable financial impacts for, e.g., low-income households or commuters in rural areas. However, there are **social compatible** options for designing a CO₂ pricing system that prevent individual mobility from becoming a luxury good on the course to climate neutrality.

- In particular, **redistribution mechanisms** should be considered. One option would be to distribute the revenue from the auctioning of the allowances on a per capita basis, which would provide disproportionate relief for low-income households because of their typically lower energy consumption (Swiss model). A relief is also possible through the electricity price (e.g. reduced EEG levy in Germany) or tax law (e.g. mobility premium). However, redistribution mechanisms have the disadvantage that they can (partially) neutralize the incentive effect of CO₂ pricing.
- Therefore, approaches that **address the incentive effect** by also enabling low-income households to adapt their behaviour to the CO₂ pricing of the EU ETS 2 appear to be generally preferable. This includes, in particular, subsidizing the purchase of emission neutral and low emission vehicles and improving the supply of affordable, climate-neutral fuels (E-Fuels).

(e) **Transitional justice through membrane structures**

In the long term, the EU ETS and the EU ETS 2 should be merged into **one EU ETS for all sectors** to create a uniform CO₂ price and the greatest possible efficiency in avoidance costs. This would reliably ensure the achievement of climate neutrality by 2050, regardless of the development of the price for the allowances. However, the CO₂ avoidance costs in the sectors still differ considerably. If they are not aligned by the time of the merger of EU ETS and EU ETS 2, **transitional justice for the energy and industry sectors must be ensured**, so that the CO₂ avoidance costs gradually align and shifts of value creation to non-European countries are prevented (*carbon leakage*).

- For this purpose, in particular **membrane structures** should be considered. This refers to mechanisms that provide the energy and industry sectors with temporary **special rights** that prevent a sudden rise in the price of allowances. Such control mechanisms have already been used in a similar form during the integration of aviation sector into the existing EU ETS. For example, specific allowances could be allocated to the transport sector which, for a transitional period, may not be substituted by allowances allocated to the energy and industry sectors, but may be substituted by the energy and industry sectors (**membrane trading**). Such a one-way trade mechanism would protect the CO₂ budget of the energy and industry sector (initially) from being accessed by the transport sector, and the alignment of the CO₂ avoidance costs could evolve gradually. Membrane trading could be phased out in equal steps over a certain period of time (about five years) until free trading is possible. This would encourage the acceptance of an ETS covering all sectors.

- Providing for a **minimum price** for the allowances to be purchased by the transport sector, seems also a possible. A minimum price would provide a reliable price signal and would be in line with the structure of BEHG. In addition, allowances to be purchased by the transport sector could initially be subject to a **price premium**, e.g., if allowances are purchased that are attributable to the energy and industry sectors and thus exceed the CO₂ budget attributable to transport (or similar modifications). Such pricing mechanisms could distort allowance prices according to actual CO₂ avoidance costs for a transition period to allow for a gradual alignment. However, the price mechanisms would have to be designed in a way that reduces emissions and is market-friendly, in order to enable the EU ETS 2 to unfold its market efficiency and, moreover, prevent it from being classified as a disguised CO₂ tax.
- Transitional justice could also be achieved by introducing a **special reserve** for the energy and industry sector. The special reserve would contain a certain quantity of allowances, which only the energy and industry sectors could access (at a reduced price), for example, if an increased carbon leakage risk emerges due to higher allowances prices. The market stability reserve could also take on transitional tasks.
- Mechanisms such as **banking and borrowing**, which provide for time flexibility with regard to the acquisition and holding of allowances, and **grandfathering** could also be expanded unilaterally (for a limited time and quantity) in favour of the energy and industry sector. The transport sector would then always have to purchase its allowances at the current market price, while the energy and industry sector could hold on to allowances purchased at favourable prices (banking and borrowing) or benefit from grandfathering.
- However, all such membrane structures that ensure a design of the EU ETS as a **breathing cover** should, as described, only be of a **temporary nature** in order to prevent a sudden and abrupt increase in allowance prices. In the long term, they should be dismantled to actually allow for an alignment of the CO₂ avoidance costs across different sectors. Otherwise, the EU ETS with comprehensive sector coupling would not provide for CO₂ avoidance at the lowest cost to society as a whole. Once avoidance costs are aligned, there is no longer a need for membrane structures.

(f) Timeline

The EU Commission will present proposals to intensify climate regulation by June 2021. It is expected that the legislative process will be completed in 2023/2024.

- Therefore, the timeframe for the introduction of an **EU ETS 2 for the transport sector** is likely to be primarily the period starting from 2030. Depending on the seriousness of the ambitions of the EU Commission towards the introduction of EU ETS 2 a test phase may be launched as early as 2026.
- The possible timeline for the merger of EU ETS and an EU ETS 2 into a **unified EU ETS** as the next step, depends particularly on the development of the environmental-economic framework conditions of the concerned sectors. In order to keep the decision on the merger transparent, the clearest possible criteria such as an aligned price corridor between the EU ETS and EU ETS 2 or a fixed date, should be formulated for the merger.

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