

## 【欧州】 【自動車】

# Road/Railway - Environmentally friendly vehicles: The European Commission considers inclusion of the road transport's GHG emissions into revised EU-ETS legislation

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### 【概要 : Summary】

Based on the European Green Deal (COM/2019/640 final), the EU intends to reach climate neutrality and net-zero GHG emissions by 2050. To achieve this target, the EU will have to introduce a more ambitious 2030 GHG emission reduction target of 55% up from 40%, compared to 1990 levels.

Accordingly, the European Commission will have to revise the GHG emission related legislation. It also intends to introduce legislation to help the transport sector to deliver on the 90% GHG emission reduction target, which should be reached by 2050. In particular, the GHG emissions of road transport need to be reduced, as this sub-sector alone accounted for around 71% of the transport sector's total GHG emissions and 21% of the EU's total GHG emissions in 2018.

So far, the GHG emissions from road transport were regulated under Regulation (EU) 443/2009 for passenger cars and under Regulation (EU) 510/2011 for light commercial vehicles. As of 1 January 2020, Regulation (EU) 2019/631 has replaced Regulation (EU) 443/2009 on cars and Regulation (EU) 510/2011 on light commercial vehicles. It establishes CO<sub>2</sub> emissions performance requirements for new passenger cars and for new light commercial vehicles to contribute to

achieving the EU's target of reducing its GHG emissions, as laid down in Regulation (EU) 2018/842, and the objectives of the Paris Agreement. However, the CO<sub>2</sub> emissions performance standards for new passenger cars and light commercial vehicles in Regulation (EU) 2019/631 seem not enough for achieving the necessary reduction targets in road transport. In fact, it will need additional measures to reduce the GHG emissions from the fleet of already existing vehicles, including second-hand vehicles, at national and EU level. Therefore, the EU plans to revise the Regulation (EU) 2019/631 in June 2021, within its "Fit for 55 Package". The Commission considers covering not only maritime transport under the new revised EU-ETS scheme, but also road transport. However, whether this inclusion of road transport into the EU-ETS could be beneficial for reducing the sector's GHG emissions is still discussed controversially.

### 【記事 : Article】

#### 1. Background: The European Green Deal and the EU's Climate law

On 11 December 2019, the European Commission presented the European Green Deal (COM/2019/640 final) as a comprehensive roadmap toward ensuring climate neutrality by 2050. The European Green Deal provides an action plan to move towards a

clean, circular economy and to restore biodiversity and to cut pollution. To achieve climate neutrality by 2050, the transport sector's GHG emissions need also to be reduced by 90%. The proposal for a European Climate Law (COM/2020/80 final) to make the climate neutrality target legally binding in the EU was presented on 4 March 2020, but to achieve climate neutrality by 2050, it needed a more ambitious mid-term target for 2030. Therefore, the Commission amended the proposal for a European Climate Law accordingly to a GHG emission reduction target of at least 55% by 2030, compared to 1990 levels in its proposal COM (2020)563 final of 17 September 2020. This new 55% GHG emission reduction target for 2030 replaces the 2030 EU-wide target of 40% GHG emission reduction set out in Regulation (EU) 2018/1999.

In addition, the Commission should, by 30 June 2021, assess how the relevant EU legislation implementing the 2030 climate target would need to be revised. Based on the necessary review of all relevant legislation and policy instruments to deliver on the additional GHG emission reduction by 2030, the Commission will present the legislative proposal for revisions of key legislations in its "Fit for 55 Package" by June 2021 to align the EU's legislation with the 2030 55% GHG emission reduction target. The "Fit for 55 Package" will cover wide-ranging policy areas - from renewables, to energy efficiency, to energy performance of buildings, as well as emissions trading, effort sharing, land use and energy taxation. Two important pieces of legislation to be revised are the EU-ETS and the Effort Sharing Regulation, which also includes the transport sector.

To achieve the transport sector's GHG emission reductions of 90% by 2050, the European Commission intends now to put a price on the transport sector's CO<sub>2</sub> emissions. Based on the "Fit for 55 Package", this would not only mean

to include the maritime transport under the EU-ETS, but also the road transport's CO<sub>2</sub> emissions. Furthermore, by 2030 there should be at least 30 million zero-emissions cars in operation on European roads and 80,000 zero-emission lorries, among others. The 2050 target will be to have nearly all cars, vans, buses as well as new heavy-duty vehicles at a zero-emission level, while rail freight traffic should have doubled.

## 2. GHG emissions in road transport and related GHG emission reduction legislation

According to the European Environment Agency (EEA), the transport sector remains the only main European economic sector, which continues to show increasing GHG emissions. The EU's transport sector's GHG emissions increased in 2018 by 0.9% (not including shipping) and in 2019 by 0.8%. Projections indicate that by 2030, the GHG emissions from transport will increase by 32% compared with 1990 levels. If the additional measures planned in national policies are considered in the projections, estimates indicate that GHG emissions will increase by 17% by 2030, compared to 1990 levels. In particular, the road transport is the main contributor to the transport sector's GHG emissions. Between 1990 and 2018, CO<sub>2</sub> emissions from road transport increased by 24% in the EU, and road transport was responsible for around 71% of the transport sector's total GHG emissions in 2018. It is also the second largest key source of all GHG emissions in the EU and it accounted for 21% of the EU's total GHG emissions in 2018.

The EU transport sector's continuously increasing GHG emissions are also a major obstacle for the EU to achieving its climate targets. All transport sub-sectors will need to significantly reduce their GHG emissions to contribute to the 2050 goal of net-zero GHG emissions. However, road transport is also considered being the sub-sector with the best

ability to decrease its emission levels, according to EEA estimates.

The road transport sector's mandatory CO<sub>2</sub> emission reduction targets were defined in Regulation (EC) 443/2009 for passenger vehicles and in Regulation (EU) No 510/2011 for new light-commercial vehicles (vans). According to EEA analysis, the average CO<sub>2</sub> emissions from new passenger cars increased in 2019 for the third consecutive year, rising to 122.4 grams of CO<sub>2</sub> per kilometre. The average CO<sub>2</sub> emissions from new vans also increased slightly to 158.4 g CO<sub>2</sub>/km, which is 0.5 grams more than in 2018. Therefore, as the 2018 and 2019 results suggest, the legislation and measures taken to reduce the CO<sub>2</sub> emissions from new cars and vans have not led to a sufficient reduction of CO<sub>2</sub> emissions.

Regulation (EU) 2019/631 of the European Parliament and of the Council of 17 April 2019 sets new CO<sub>2</sub> emission performance standards for new passenger cars and for new light commercial vehicles, and repeals Regulations (EC) No 443/2009 and (EU) No 510/2011 for the post-2020 era. From 2025, a 15% fleet-wide reduction target based on the 2021 target was set for the new passenger cars and the new light commercial vehicles. From 2030, the EU fleet-wide target for CO<sub>2</sub> emissions of the new passenger cars is set to be reduced by 37,5%, based on the 2021 target. For the new light commercial vehicles fleet (vans), an EU fleet-wide target of 31% below the 2021 target was determined for 2030.

The European Commission has also identified the target to have at least 30 million zero-emission vehicles in the EU's market by 2030. However, to achieve this and the European Green Deal target to reduce the transport system's GHG emissions by 90% by 2050, the 2025 and 2030 CO<sub>2</sub> reduction targets for cars, need to be sharpened. Accordingly, the Commission plans to revise the Regulation (EU) 2019/631 setting CO<sub>2</sub> emission performance standards for cars and vans in June 2021, within its "Fit for 55 Package".

In addition, Regulation (EU) 2019/1242, stipulating fleet wide CO<sub>2</sub> emission standards for heavy goods vehicles, will become effective in two stages from 2025 and 2030.

Finally, the momentum of the recovery from the COVID-19 pandemic and related financial support programs should be used to accelerate the decarbonisation and modernisation of the entire transport and mobility system.

### 3. Collection of data on real-world fuel and energy consumption of new cars and vans

An evaluation of Regulations (EC) No 443/2009 and (EU) No 510/2011 in 2015 concluded that those Regulations have generated GHG emissions savings in the beginning but in the past years, the benefits have been eroded due to the increasing discrepancy between the vehicles' CO<sub>2</sub> emissions measured under the New European Driving Cycle (NEDC) and their real-world CO<sub>2</sub> emissions. Under the NEDC, the gap between type approval and real-world emissions grew in the end to almost 40%. This was one of the reasons for the replacement of the NEDC by the Worldwide Harmonised Light Vehicle Test Procedure (WLTP) in 2017. However, since the CO<sub>2</sub> emissions performance standards for new passenger cars and new light commercial vehicles are still not delivering on the necessary reduction of GHG emissions, the introduction of on-board fuel consumption measurement devices was decided. In accordance with Regulation (EU) 2019/631, Article 13, the European Commission adopted a new Implementing Regulation (EU) 2021/392, providing detailed rules on the procedures for the monitoring and reporting of CO<sub>2</sub> emissions from new passenger cars and light commercial vehicles by Member States and manufacturers, as well as of data on real-world CO<sub>2</sub> emissions and fuel or energy consumption of those vehicles. The data on real-world CO<sub>2</sub> emissions and fuel or energy consumption of those vehicles placed on the EU market from 2021 onwards will be collected based

on a new Implementing Regulation (EU) 2021/392. All new cars will be equipped with an on-board measurement device that records the fuel or energy consumed by a vehicle when in use and data can be collected when vehicles are brought in for repairs or servicing, and by the EU Member States when vehicles undergo periodic technical inspections. Manufacturers, Member States as well as the Commission and the EEA will have to ensure that the data collection and reporting is consistent with the rules of the general data protection Regulation (GDPR). However, vehicle owners have the option to stop the data from being collected.

The first data will be collected from new vehicles sold in 2021 and results will be reported to the European Environment Agency (EEA) as of April 2022. From December 2022 onwards, the Commission will publish the real-world data every year with the aim of showing the difference between the average type-approval and real-world CO<sub>2</sub> emissions for each manufacturer's fleet of new vehicles. This data will make it possible to monitor the gap between type-approval and actual real-world CO<sub>2</sub> emissions.

#### **4. The Commission's plan to include the road transport sector into the EU-ETS**

The EU-ETS was set up in 2005 and covers the GHG emissions of approximately 11,000 power stations and manufacturing plants, representing about 40% of the EU's total GHG emissions. Since 2012, it also covers the aviation sector within and between the participating countries in Europe. Based on the plans for a "Fit for 55 Package", the European Commission is expected to revise the CO<sub>2</sub> emission performance standards for cars and vans in June 2021.

As part of the roadmap towards the European Green Deal, the EU is considering the revision of two key legislative tools for decarbonisation, the EU-ETS and the Effort Sharing Regulation (ESR), which sets binding GHG emissions reduction

targets for the EU Member States in sectors, which are not covered by the EU-ETS. One of these sectors covered by the ESR is currently also the transport sector.

Considering the "Fit for 55 Package", one of the policy options is the extension of the scope of the EU-ETS to include road transport. In contrast to the current situation, in which the EU-ETS only covers the aviation sector for its intra-EEA area's flights, each vehicle's GHG emissions could be monitored and abated under the EU-ETS. Since there has been little to no success in the decarbonisation in the road transport sector, the idea is now to change the approach and to cover this sub-sector's GHG emissions in the EU-ETS. Therefore, it is the European Commission's intention to explore how to include maritime and road transport into the scope of EU-ETS, while revising the EU-ETS for aviation.

On 25 March 2021, the Commissioner for Climate Kadri Simson mentioned that the "Fit For 55 Package" would also include the revision of the EU's legislation for energy efficiency and renewables. Furthermore, it would provide for measures to support sustainable mobility. It could contain a proposal to extend the EU-ETS to sectors such as building and road transport. The proposal will be complemented by a review of the energy taxation, and a carbon border adjustment mechanism to address a possible carbon leakage. The extension of the EU-ETS to road transport as well as to heating fuels should accompany the existing policies on GHG emission reduction for reaching the 2030 and 2050 targets.

#### **5. Pros and cons regarding the inclusion of road transport into the EU-ETS and the way forward**

The Commission intends to align the EU's climate change related legislation with the new 2030 climate target of 55% GHG emission reduction and with the 90% GHG emission reduction target for the transport sector in 2050. Whereas the

legislation so far focused on the introduction of passenger cars and light commercial vehicles with lower CO<sub>2</sub> emissions, the real-world consumption of fuels caused an always increasing amount of GHG emissions in road transport. Therefore, to target the GHG emissions of the already existing fleet of vehicles, including second-hand vehicles, the introduction of additional GHG emission reduction measures have become necessary at national and EU level.

Ever since the new Commission took office, the inclusion of road transport into the EU-ETS has been considered. However, whereas the maritime transport's GHG emissions are nearly sure to become regulated under the EU-ETS, the step to include road transport is still discussed controversially. While such an extension would help Europe achieve its climate goals, it could also have distributional effects.

In a first step, the European Commission has published its new Commission Implementing Regulation (EU) 2021/392, which will allow to monitor and report the annual emissions of CO<sub>2</sub> from passenger cars and light commercial vehicles as of 2022. However, it is feared that an EU-ETS for road transport could create social discontent due to extreme price hikes of fuels. However, to put a price on GHG emissions is an important element of the EU-ETS, as an increase of the price creates an incentive to reduce the GHG emissions. According to the European Consumer Organisation BEUC, the consumers' demand for mobility is relatively inelastic to price signals, including road transport. The private car users and businesses will not or cannot necessarily change their mobility patterns or use other modes of transport to avoid high fuel prices.

Therefore, according to BEUC, extending the EU carbon market to road transport could financially harm consumers, especially those with lower-incomes, and without providing sufficient access to more energy-efficient mobility alternatives. This could exacerbate social inequalities and

lead to protests, like it happened in France when the "Gilets Jaunes" protests started over the increased fuel prices. Considering the impacts of an inclusion of the road transport's GHG emissions into the EU-ETS, some months ago, the Commission's executive vice-president for the European Green Deal, Frans Timmermans, seemed not decided on the topic, yet. According to T&E, Timmermans stated at the occasion of the T&E 30<sup>th</sup> anniversary online event on 8 September 2020, he was not sure that the inclusion of the road transport under the EU-ETS was the best way for decarbonising road transport. Timmermans stated that stricter CO<sub>2</sub> standards for vehicles were a way of speeding up the widespread use of zero-emission vehicles. At the Opening remarks at the press conference on the 2030 climate target plan on 17 September 2020, however, Timmermans underlined the introduction of EU-ETS for road transport was one of the future measures to reduce GHG emissions from transport. At the same time, he pointed out the EU would need stronger CO<sub>2</sub> standards for transport. Finally, at the occasion of the Eurogas annual meeting on 25 March 2021, Timmermans stated that "...The [Fit for 55] Package will include a reform of the EU ETS and a possible extension to buildings and to transport".

However, there are also suggestions to better integrate the transport sector's GHG emissions into existing EU policies, like under the targets of the EU Renewable Energy Directive or the Energy Taxation Directive. In any case, the CO<sub>2</sub> standards for passenger cars and vans need to be revised to better reflect the real environmental performance. The revision of these directives could be carried out independently from an extension of the EU-ETS to road transport.

The Commission will have to weigh up the pros and cons of an inclusion of the road transport's GHG emissions into the EU-ETS and to present its decision within the framework of the "Fit for 55 Package".

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