【欧州】【Common】

Common - Environmental issues: The European Commission's new 2030 GHG emission reduction target including transport sector-related emission reduction measures

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【概要：Summary】

The current EU climate related GHG emission reduction target for 2030 is set at 40% lower than the 1990 level. However, in the view of the European Green Deal's 2050 target of net-zero greenhouse gas emissions, the current 2030 target is not ambitious enough.

Therefore, the European Commission examined the effects on the EU's economy, society and environment in case of reducing GHG emissions by 50% to 55% by 2030, compared to 1990 levels in a comprehensive impact assessment. Based on the impact assessment's results, the European Commission presented its 2030 Climate Target Plan on 17 September 2020. The Climate Target Plan consists of a Communication on Stepping up Europe's 2030 Climate Ambition (COM (2020) 562 final), the Impact Assessment as well as of an amended proposal on the draft European Climate Law to incorporate to incorporate the new 2030 emissions reduction target of 55%, among others. In order to achieving the new 2030 target of a 55% GHG emission reduction, more measures and incentives are required in all sectors of the economy. The burning of fossil fuels is the largest source of GHG emissions in the EU and therefore, the energy system as well as buildings and transport have an important role for reducing the GHG emissions in general. The decarbonisation of these sectors will be of great importance to achieving the new 2030 target and subsequently the 2050 climate-neutrality target. In particular the planned measures and legislative reviews to reduce GHG emissions in the transport sector will be presented in this article.

【記事：Article】

1. The European Commission's new 2030 GHG emission reduction target

Based on existing EU climate related policies and current climate legislation, the EU was on course to reach the 40% GHG emission reduction target of 2030, compared to 1990 levels. However, this target was not ambitious enough in order to achieve the net-zero GHG emission target of 2050, which is envisaged by the European Green Deal (COM (2019) 640)) of 11 December 2019. Therefore, in its European Climate Law (COM (2020) 80 final) (Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing the framework for achieving climate neutrality and amending Regulation (EU) 2018/1999 (European Climate Law) of 4 March 2020, the European Commission proposed to increase the 2030 GHG emission reduction target for 2030 to at least 50% and towards 55%, compared with 1990 GHG emission levels. Thereby, the Commission intended to achieve

the 2050 climate neutrality target of the European Green Deal. However, the Commission's Impact Assessment considered the mix of policy instruments available and how each sector of the economy could contribute to the 2030 GHG emission reduction target and the climate neutrality target of 2050. It showed that the original proposal of the European Climate Law with a target of GHG emission reduction of at least 50% and towards 55% compared with 1990 levels was not sufficient to achieve the 2050 climate neutrality target. Instead a balanced, realistic, and prudent pathway to climate neutrality by 2050 would require a GHG emissions reduction target of at least 55% by 2030. Accordingly, on 17 September 2020, based on the results of the comprehensive Impact Assessment, the Commission presented its 2030 Climate Target Plan (Communication on Stepping up Europe's 2030 Climate Ambition (COM (2020) 562 final)) and an amendment to the draft European Climate Law ((COM (2020) 563 final)), to incorporate the new 2030 emissions reduction target of 55%, among others. The Commission proposal (COM (2020) 563 final) modifies the initial Commission proposal (COM(2020) 80 final) to include the revised target of a 55% GHG emission reduction in the European Climate Law. However, this ambitious reduction and the climate-neutrality by the year 2050 can only be achieved if also transport-related GHG emissions are significantly reduced and energy efficiency is increased. The assessment of Member States' National Energy and Climate Plans has also shown that the share of renewable energy in the EU could reach 33.7% by 2030, going beyond the current target of at least 32%.

However, the decarbonisation of the transport sector is a particular challenge. The implementation of the new target will require the revision and expansion of the EU's Emissions Trading System (EU-ETS), the Regulation on the CO_2 emissions performance standards for cars and vans, and the Alternative Fuels Infrastructure Directive, among others.

The Communication is expected to present a set of legislative revisions and proposals by June 2021.

2. Sustainable and smart mobility strategy and transport investments

Road, rail, aviation and waterborne transport are making efforts to decarbonise but these efforts must be increased and sustained when considering the amended 2030 GHG emission reduction target. In order to accelerate the shift to sustainable and smart mobility, the transport sector will require important investments regarding networks, the infrastructure and the fleets. For passenger transport, the completion of the TEN-T Core Network is needed by 2030 to radically change the transport offer in Europe with new high-speed rail links and the development of multimodal passenger hubs in urban nodes and accessibility to all users, among others. For freight transport, the completion of key cross-border sections and missing links, the upgrade of major interoperable freight routes for trains, the upgrade of connections to ports and logistics centres, the massive increase of capacity in terminals as well as rolling motorways will be necessary attract significantly larger volumes of freight on railways. Investments in inland waterways and short-sea-shipping for serving the hinterland of maritime ports will also be important. The deployment of alternative fuels and smart European-wide systems of recharging/refuelling infrastructure for cars and light-duty vehicles, the deployment of recharging and refuelling for long distance / heavy duty vehicles, further electrification of rail tracks, modernisation and (renewable) electrification of rail fleet as well as enhanced clean public transport in urban areas will be necessary. Also the acceleration in the production and the use of advanced biofuels and e-fuels for the aviation sector, as well as the greening of ports and airports will have to be supported. In digitalisation, the investments in 5G, artificial intelligence, block-chain and common databases could also benefit the reduction of GHG

emissions in the transport sector. Considering the specific challenges in the transport sector, the Commission will propose a comprehensive strategy on "Sustainable and Smart Mobility".

3. The Commission's policies for reducing GHG emissions in the transport sector

Current climate legislation is designed to achieve a reduction of at least 40% GHG gas emissions by 2030, compared to 1990. However, this legislation will have to be updated to reflect the new 55% emission reduction target by 2030. Accordingly, with the introduction of the new 55% GHG emission reduction target for 2030, renewable energy, energy efficiency and transport policies and standards have to be revised and, where needed, new policies will be introduced. Sectoral ambitions will have to be set in light of the 55% economy wide GHG emissions reduction target.

Since all transport sectors will have to contribute to the 55% reduction effort of 2030, a combination of efficiency improvements, fuel mix changes, greater use of sustainable transport modes and multi-modal solutions, digitalisation for smart traffic and mobility management, road pricing and other incentives can reduce GHG emissions and at the same time significantly address noise pollution and improve air quality. Each transport sector will have to take specific measures to reduce its GHG emissions in the light of achieving the new 2030 emission reduction target. There still exists unaddressed potential for the further significant deployment of renewable energy. An integrated approach to develop and deploy further renewable technologies, advanced biofuels and sustainable alternative low or zero carbon fuels and gases but also offshore wind energy needs to be considered. In 2015, the transport sector still had the lowest share of renewable energy, with only 6%, calculated according to the methodology as set out in Directive 2018/2001/EC. By 2030, this has to increase to around 24% through further development and deployment of electric vehicles, advanced biofuels and other renewable and low carbon fuels. However, market barriers and lack of incentives currently hinder further penetration of renewables in the transport sector, either through electrification, or via the penetration of renewable and low-carbon fuels such as advanced biofuels or other sustainable alternative fuels and gases. Secure access to batteries will also be critical for the production of electric vehicles, while green hydrogen will be crucial for decarbonising heavy-duty transport. It will also be important to develop new propulsion systems in aviation and the maritime transport sector, as they have particular difficulties to reducing GHG emissions. Modal shift, increased use of inland waterway transport, rail and new forms of urban mobility can all be part of the solution. Furthermore, clean and efficient private and public transport will bring major benefits to individual citizens and communities. An expanded EU-ETS could be developed to include road transport, among others. Ambitious CO_2 emissions standards for cars and vans will be needed to ensure a future zero emissions mobility. In order to achieve climate neutrality in road transport, conventional cars will need to gradually be displaced by zero emissions vehicles and greater use should be made of sustainable collective transport services. While the production and sales of electric vehicles is increasing, also hydrogen promises a climate friendlier way of propulsion, particularly for heavy-duty trucks.

In urban transport, an increase of public transport and active mobility, such as walking and cycling, as well as automated, connected and multimodal mobility, could drastically lower pollution from transport, especially in cities.

According to the European Commission's Impact Assessment, to reach the overall climate neutrality target in 2050, nearly all cars on the roads must be zero emissions by that time. This transition needs to be supported by the appropriate roll out of infrastructure for recharging and refuelling of those vehicles by 2030. The upcoming revision of the

Alternative Fuels Infrastructure Directive is a key initiative in this regard.

The development and testing of new automotive technologies have long lead times and cars are on the roads between 10 and 15 years. The Commission will also assess in the coming months what would be required in practice for this sector to contribute to achieving climate neutrality by 2050 and at what point in time internal combustion engines in cars should stop coming to the market.

Furthermore, next to extending the use of emissions trading also the revision of Energy Taxation Directive could contribute to putting a price on carbon and reducing emissions. This is also in consideration regarding the aviation sector.

Regarding, the aviation and maritime sectors, they will both need to scale up efforts to improve the efficiency of aircraft, ships and their operations and to increase the use of renewable and low-carbon fuels. The GHG emissions from the maritime sector will be covered by the EU-ETS, taking into account the current monitoring system. Regarding the EU-ETS for aviation, the Commission will propose to reduce the free allocation of allowances in order to increasing the effectiveness of the carbon pricing in this sector. Furthermore, a decision on how to tackle extra EU aviation and navigation in the EU-ETS will also depend on the progress at the International Maritime Organization (IMO) and the International Civil Aviation Organization (ICAO).

Given that the transport sector is a major emitter of GHG emissions, the RED II aims to promote the use of renewable and low-carbon fuels (e.g. advanced biofuels, e-fuels and hydrogen) by obliging each EU Member State to set out a supply obligation promoting the use of renewable fuels. While RED II already includes special incentives for the deployment of such advanced biofuels in the aviation and maritime sector, the efficiency of these measures needs to be reviewed. Additional measures for uptake of renewable and other sustainable alternative fuels in these modes will be assessed in ReFuelEU Aviation and FuelEU Maritime initiatives.

Renewable electricity can also serve to produce renewable and low-carbon fuels such as hydrogen or biomethane. Furthermore, offshore wind will be playing an increasingly important role in the European electricity system. Offshore wind projects and accompanying infrastructure have been developed in the context of the EU Member States' policies. However, this national approach will not suffice to foster the scale-up the energy production and further measures under the offshore renewable energy strategy will be needed.

4. Towards a 55% GHG emission reduction

The new 55% GHG emission reduction target for 2030 will be of great importance for reaching climate neutrality by 2050. In fact, this 55% target will put all economic sectors under pressure, and especially the transport sector, which so far had less ambitious GHG emission reduction targets for the next decade. Therefore, in order to each this 2030 target, the Commission needs to set out the legislative proposals for revisions and amendments also regarding the transport sector's GHG emissions by June 2021. In the transport sector, the EU will need to tackle GHG emissions by strengthening the CO2 standards for vehicles, making clean fuels such as hydrogen more accessible, and it will have to strongly invest into recharging and refuelling infrastructure among others. The Commission aims to expand the EU-ETS for the maritime, buildings and road transport sectors. The Commission will also consider the integration of all emissions from fossil fuel combustion.

Furthermore, considering the economic recovery from the COVID-19 pandemic, it will require a massive boost of investment to overcome the economic crisis triggered by the pandemic, in the same way as the 55% emission reduction target will require investments. Therefore, the EU Member States will be able to use the NextGenerationEU recovery fund and the EU's next long-term budget to make the necessary investments for an economic

recovery by combining it with the green transition and carbon neutrality by 2050. The NextGenerationEU recovery fund can also promote future-proof clean technologies to accelerate the use of sustainable, accessible and smart transport, charging and refuelling stations and extension of public transport. The Commission has called on the European Parliament and the Council to agree as quickly as possible on the legislative proposal regarding the 55% GHG emission reduction target for 2030 in order to be able to review all relevant climate and energy policy instruments by June 2021.

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