VEREINIGUNG DER HESSISCHEN
UNTERNEHMERVERBÄNDE

Position paper of VhU energy committee
on the European green deal

CO_2 cap instead of CO_2 tax:

Introduce European emissions trading for heating and transportation, avoid risk of trade conflicts caused by CO_2 border tax

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Summary

In the coming years, the "European green deal" presented by the European Commission in December 2019 will set the economic framework for companies to operate in.

The “green deal” aims to raise the existing EU climate targets to reduce greenhouse gas emissions, which are already ambitious by international standards. Yet a higher target increases the risk that emissions will merely be shifted to other regions.

The ecological aim is to reduce global CO_2 emissions. How quickly the reduction is to be accomplished is a political question which, in the view of the Federation of Hessian Employers Associations (VhU), must be debated and decided in parliament. This decision-making process must take into account scientific findings as well as political and economic feasibility.

The VhU is convinced that the reduction of greenhouse gas emissions will not succeed with state paternalism and a large number of individual regulations, but only with a decreasing cap on CO_2 emissions, rationality, market economy and technology neutrality.

In order to reduce CO_2 emissions, one needs to address the quantity by limiting the amount of CO_2 emissions. Policymakers must set an appropriate framework that forces stakeholders to reduce greenhouse gas emissions.

Specifically, the VhU advocates the following set of measures:

- The EU should rely solely on the instrument of an effective CO_2 cap. A CO_2 cap like the European Emissions Trading System (EU ETS), which has been successfully implemented for years, ensures that the political climate targets are met. Further regulation is not necessary because it does not have any additional reduction effect. The existing, small-scale and often contradictory mix of regulatory instruments (limit targets for new car fleets, quotas, etc.) could thus be reduced.
- In addition to the EU ETS, a second, separate "cap-and-trade" system should be introduced for heating and transportation. Germany’s national emissions trading system for heating and transportation can serve as a blueprint.
- The Commission has so far remained vague in its description of a CO_2 border adjustment mechanism. At present, there is more to suggest that it could be difficult to effectively address the issue of differing international climate protection ambitions with this measure. Therefore, an assessment of alternative instruments that ensure and continue to protect companies from carbon leakage should take place. The climate policy driven burdens in the EU make an extended carbon leakage protection necessary for the foreseeable future.

1. Introduction

With the "european green deal", the European Commission presented its concept for sustainable economic growth on December 11, 2019[1], focusing on reducing greenhouse gas emissions (GHG) and above all CO_2.[2] This aim is to be implemented legally by increasing the EU climate targets. In addition to the target of greenhouse gas neutrality by 2050, the reduction target for 2030 is to be raised to at least minus 55% compared to 1990.

The “green deal” outlines a number of projects that will become more concrete only in the course of the next few years, touching upon a broad range of policy areas: from trade policy to digitalization, research and innovation, economic and investment policy, and an industrial strategy for a "clean and circular economy." The competitiveness of the European economy is to be strengthened above all by gaining an international lead in green technologies.

2. Challenges

The implementation of the "green deal" requires a fundamental transformation of industry, energy supply, agriculture, transport and society in the 27 EU member states.

So far, the "green deal" has focused primarily on increasing the existing reduction targets, which are already ambitious by international standards. Necessary transition periods as well as economic constraints of companies appear rather neglected.

In particular, industrial companies in Europe are threatened in their existence by international competitors with lower climate protection standards. Additional burdens on business thus increase the risk that production facilities will be relocated to other regions with less stringent climate protection requirements (so-called "carbon leakage").

3. Overall analysis

In accordance with the Paris Climate Agreement of 2015, the rise in average temperature is to be limited to below two degrees Celsius by 2100.

In this context, additional efforts by EU countries are needed to further reduce GHG emissions.

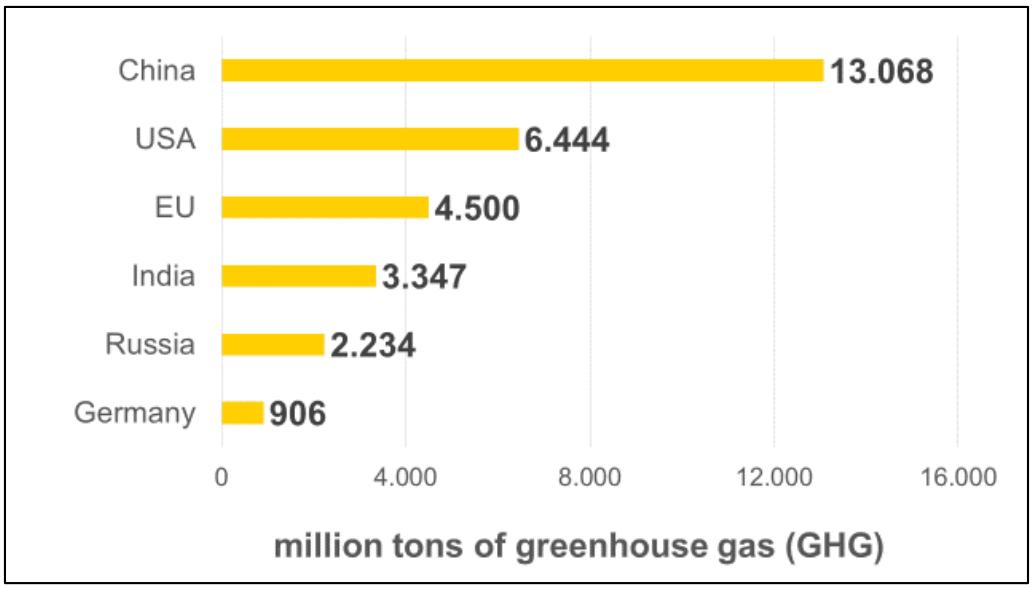
The amount of GHG that can be cut in Europe is too small on a global scale to prevent the negative consequences of climate change by its own. In 2015, about 49 billion tons of GHG were emitted globally - of which about 9 percent, or 4.5 billion,

[1] Communication from the Commission (COM(2019) 640 final): The European Green Deal, https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF

[2] In this paper, CO_2 always implies total greenhouse gases, i.e. the sum of CO_2 and CO_2 equivalents. Accordingly, the terms "CO_2" and "GHG" are used synonymously.

were emitted in the EU. China and the USA emitted more than four times as many tons of GHG in the same period.[3]

Fig. 1: Greenhouse gas emissions 2015



Worldwide GHG emissions 2015: 49.113 million tons of GHG
Source: Joint Research Centre (JCR) (2019)

The ecological aim is to reduce global CO_2 emissions. How quickly the reduction is to be accomplished is a political question which must be debated and decided in parliament. This decision-making process must take into account scientific findings as well as political and economic feasibility.

The "green deal" can only be ecologically effective in terms of CO_2 reduction if it encourages major global emitters to agree on binding worldwide reduction targets. If climate policy efforts in the EU merely result in emissions being shifted to other regions with less stringent climate protection requirements, total global emissions will at best remain the same.

In 2018, the BDI published an extensive study on the costs and technical possibilities of climate protection in Germany.[4] The results indicate how great the challenges would be at the European level.

The study estimates that the additional costs to be covered by subsidies and government investment by 2050 will be at best 1.5 to 2 trillion euros for Germany alone. Political mismanagement could significantly increase this amount. This corresponds to an average annual additional investment of around 1.8 percent of Germany's gross domestic product by 2050.

According to the study, a GHG reduction of 95 percent for Germany would be "at the limit of foreseeable technical feasibility and current social acceptance." A reduction like this would require virtually zero emissions for large parts of the German

[3] Joint Research Centre (JRC) - European Commission's science and knowledge service (2019): Fossil CO_2 and GHG emissions of all world countries.
[4] BDI (2018): Klimapfade für Deutschland, pg. 6.

economy. In addition to abandoning all fossil fuels as far as possible, it would require, among other things, the import of renewable fuels, the selective use of currently unpopular measures such as the storage of CO_2, so-called carbon capture and storage (CCS), and even fewer emissions in livestock. Successful implementation is only conceivable with similar high ambitions in most other countries, the study concludes.

Recommended action

In order to reduce CO_2 emissions, one has to address the quantity of CO_2 by limiting the amount of CO_2 emissions. Policymakers must set an appropriate framework that forces stakeholders to reduce greenhouse gas emissions.

The reduction of greenhouse gas emissions will not succeed with state paternalism and a large number of individual regulations, but only with a decreasing cap on CO_2 emissions, rationality, market economy and technology neutrality.

With the EU ETS, the EU implemented a successful and proven emissions trading system that meets these requirements. The EU ETS works on the “cap and trade” principle. A cap is set on the total amount of greenhouse gases emitted by the energy sector, industry and intra-European commercial aviation. The cap is reduced over time so that total emissions fall. Within this system, trading in allowances fosters competition and an inventive spirit to ensure emissions are cut where it costs least to do so.

Such a "cap and trade" system ensures that the politically determined climate targets are met. Further regulation is not necessary because it does not have any additional reduction effect. The existing, small-scale and often contradictory mix of regulatory instruments (limit targets for new car fleets, quotas, etc.) could be reduced. A framework like this thus also prevents misdirection and artificial price increases through individual climate policy measures.

Nevertheless, situations may arise in which accompanying regulation can be appropriate. In any case, it is necessary to significantly expand government investment in research and development. After all, leaps in technology could mean that climate protection leads not to a loss of prosperity, but to a gain in prosperity.

4. Analysis of individual projects

4.1 European climate protection legislation

A new EU climate law is intended to make GHG neutrality by 2050 legally binding. This is to be accompanied by an increase in the current climate target for 2030.

In September 2020, the Commission announced its intention to raise the reduction target for 2030 to at least minus 55% compared with 1990.[5] According to the Commission, increasing the target would be economically viable and would require additional annual investments of 350 billion euros between 2021 and 2030, or around 1.7% of the EU's gross domestic product compared with the previous decade. In a

[5] Communication from the Commission (COM(2020) 562 final): Stepping up Europe’s 2030 climate ambition, https://ec.europa.eu/clima/sites/clima/files/eu-climate-action/docs/com_2030_ctp_en.pdf

"Climate Goal 2030" plan, sector-specific targets for the year 2030 are defined to meet the overall target of minus 55%.

By June 2021, the Commission intends to submit concrete proposals on which legislative steps are necessary to implement these increased targets. This concerns, for example, the EU ETS Directive, the Effort Sharing and LULUCF Regulation, the EU Energy Efficiency Directive, the Renewable Energies Directive and the Energy Taxation Directive.

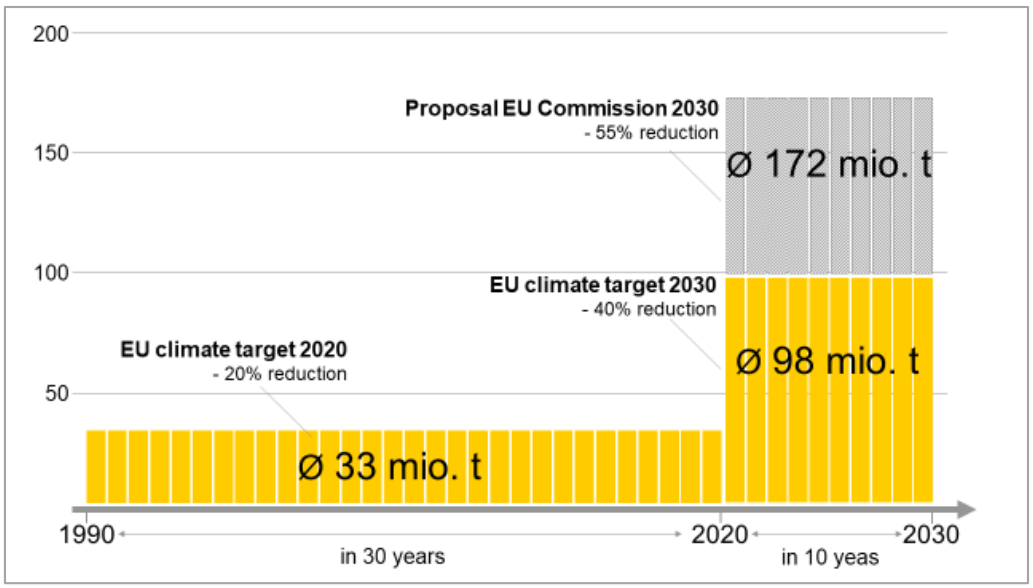
Evaluation

First of all, an EU climate law should be rejected for regulatory reasons. It should be left to the EU member states alone to enact "laws". The EU should continue to limit itself to setting the EU's legal framework with existing legal acts such as directives and regulations. The Commission's proposal to set EU climate targets independently in the future through so-called delegated acts without involving the other EU institutions should also be rejected. With such far-reaching implications, that increased targets would entail, co-determination by the European Council and the European Parliament is not only necessary, but urgently required.

As far as a possible raise of the climate targets is concerned, the current EU climate target 2030 of minus 40% already requires a tripling of the current annual reductions by 2030. Raising the EU climate target to minus 55% by 2030 means a fivefold increase in the reduction achieved from 1990 to 2020.

This is illustrated by the following figures: To achieve the 2020 climate target (minus 20% compared to 1990), the average GHG reduction between 1990 and 2020 was about 33 million tons of GHG per year. For the additional reduction of another 20 percentage points to minus 40% by 2030, the reduction performance must be tripled to 98 million tons of GHG per year over the next ten years - within just one-third of the time. For a reduction of minus 55%, as proposed by the Commission, GHG emissions would need to be reduced by an average of 172 million tons of GHG per year.

Fig. 2: Required GHG reduction in million tons per year



Source: BDI 2020: Increased EU climate target 2030 in tons

Raising the 2030 climate target appears neither ecologically effective nor economically efficient. It is not ecologically effective because it increases the risk that emissions are merely shifted to other regions. Without an accompanied expansion of carbon leakage protection measures, a more ambitious target could even lead to an increase in emissions worldwide.

Moreover, it is unclear in which areas and with which instruments the additional reduction effort is to be achieved. GHG emissions within the EU are regulated by two main levers:

- The EU ETS caps GHG emissions of energy sector, industry and intra-European commercial aviation. The cap is reduced over time so that total emissions fall.
- GHG emissions of non-ETS sectors (primarily transport and buildings) are governed by the so-called EU Climate Change Regulation (also known as the Effort Sharing Regulation). Accordingly, each EU member state receives an annual GHG quota for these sectors based on an individually defined reduction target by 2030.

To achieve the current 2030 reduction target of minus 40% compared to 1990, emissions covered by the EU ETS must be reduced by minus 43% by 2030 compared to 2005[6], and emissions from the non-ETS sectors by minus 30%. Under the EU Climate Change Regulation Germany has committed to reduce its GHG volumes in the non-ETS sectors by minus 38% compared to 2005. Germany thus accounts for around 21% of the EU-wide emissions reduction to achieve the non-ETS target of minus 30%.

Raising the target from minus 40% to minus 55% requires a further 840 million tons of GHG to be cut over the next ten years - to around 2,520 million tons of GHG in 2030. This additional reduction is higher than the total emissions of the Federal Republic of Germany at present.[7] In theory, this amount can be divided between EU ETS and non-ETS sectors (effort sharing). If relative shares remain the same, there would have to be a reduction of minus 63% in EU ETS and minus 44% in non-ETS sectors.[8] This implies that the German reduction target for non-ETS sectors would increase from minus 38% to around minus 55%. As a consequence, the Federal Republic would have to renegotiate and tighten its climate protection program that was agreed on only until the end of 2019. The companies affected would thus be threatened with further cost increases, for example within the national emissions trading system.

Recommended action

The renewed debate about raising the 2030 climate target is counterproductive because it encourages false actionism. Instead of getting tangled up in target discussions, companies need a clear perspective, i.e. political decision-makers

[6] The official reference year for sectoral climate targets is 2005, not 1990. In 2005, total EU emissions were about 359 million tons of GHG below 1990 levels.

[7] Kube/Schäfer (2020): Erreichung der 2030-Klimaziele in der EU und Deutschland – Welche Auswirkungen hat der Green Deal? In: Energiewirtschaftliche Tagesfragen 70. Jg. (2020), Heft 7/8, S. 34.

8 Pahle, Tietjen et al. (2020): Die Anschärfung der EU-2030-Klimaziele und Implikationen für Deutschland. In: Energiewirtschaftliche Tagesfragen 70. Jg. (2020), Heft 7/8, S. 10.

should focus on implementing suitable instruments that reduce greenhouse gas emissions in an ecologically effective and economically efficient way.

The crucial factor to protect the climate is to reduce the total amount of GHG emissions. Where CO_2 is reduced, whether in road traffic, the EU ETS or in buildings, is irrelevant to the climate. Accordingly, CO_2 should be reduced where it costs least to do so. This should be the guiding principle when it comes to dividing the necessary reduction efforts between EU ETS and non-ETS.

A renegotiation of the EU Climate Change Regulation seems reasonable with the aim of reducing Germany's relative share in achieving the EU-wide reduction target for non-ETS sectors compared to other countries. At the very least, the German government should work to expand the flexibility instruments that the regulation already provides in part.

This includes, for example, the use of EU ETS allowances to meet non-ETS targets (so-called "linking"), meaning that the amount of GHG that is not emitted by deleting these allowances can then be transferred to the non-ETS quota. Currently, only a few member states have the option to delete a certain amount of EU ETS allowances allocated to them. Germany is not one of them so far.

Currently, abatement costs in the EU ETS are lower than in non-ETS sectors. Extending the eligibility would align the marginal abatement costs in EU ETS and non-ETS sectors and would thus be cost-efficient. Therefore, this flexibility option should be expanded both in volume and number of member states.

The same applies to counting climate protection projects in third countries as eligible emission avoidance. For the purpose of climate protection, it is irrelevant whether CO_2 emissions are reduced in the EU or elsewhere. In this respect, economic efficiency alone should be the decisive factor. The Paris Climate Agreement calls for the creation of an international carbon market, a market-based approach to the accounting of emissions. The EU should seize this opportunity and work with its international partners to push this forward.

4.2 Expansion of the EU ETS

As part of the "green deal", the Commission intends to look into extending the EU ETS to further sectors by June 2021. In addition to an integration of sectors such as heating and transport, it will also examine to increase the linear reduction factor. For the 2021 to 2030 trading period, the linear reduction factor is 2.2% per year. Moreover, an unscheduled one-time lowering of the CO_2 cap is being considered to align the cap with current emissions in the EU ETS.

Evaluation

Energy sector, industry and intra-European commercial aviation are subject to a CO_2 cap within the EU ETS. In these sectors, the pressure of the existing cap-and-trade system with a declining cap has led to investments in efficiency improvements for years. Many relatively simple and cost-effective measures with short payback periods have been implemented to a large extent.

Unlike industry, there is no international competitive pressure in the heating and road transport sectors. For many industrial companies, however, an increase in CO_2

prices to 30 or 40 euros per ton of CO_2 would threaten their very existence. At the gas station, the price of gasoline would rise by 2-3 cents per liter at a CO_2 price of 10 euros per ton. At 40 euros per ton of CO_2, the price increase would be around 10 cents per liter.

The willingness to pay in the transport and buildings sectors is very high (price elasticity of demand is low). For a joint emission trading system, this would mean that the pressure for the transport and buildings sectors to reduce emissions would initially be largely shifted to the energy, industry and intra-European commercial aviation sectors. Moreover, if the transport and buildings sectors were included in the EU ETS, the total amount of allowances in the EU ETS would be adjusted based on a certain baseline period and then reduced annually by the linear reduction factor.

Several studies assume that it would be easier and cheaper for oil companies to "buy" allowances from the industry than to rely on synthetic fuels, for example, meaning that emissions in the transportation and buildings sectors would not decrease at the same rate as ETS allowances. In turn, this would increase the abatement burden on the energy/industry/intra-European commercial aviation sector in the form of sharply rising allowance prices. The competitiveness of industry would no longer be guaranteed, increasing the risk of production facilities being relocated without reductions having been stimulated in the transport and buildings sectors.

In addition, not the distributors but the emitters are subject to the EU ETS and required to buy CO_2 allowances. If the road transport and buildings sectors were to be included in the existing EU ETS for energy sector, industry and intra-European commercial aviation, gas station customers and private households would then have to purchase allowances for their gasoline or heating themselves. This would be unreasonable for consumers, the responsible authority or the intermediaries, who would have to cease supply in case of no allowances.

Recommended action

EU ETS and non-ETS sectors should have separate CO_2 caps in two separate trading systems.

For non-ETS sectors, this can be implemented gradually:

Germany will introduce a national emissions trading system for the heating and transport sectors from 2021. Although the system still has some technical flaws, such as the inefficient fixed prices for CO_2 allowances set until 2026, in principle it ties in with the tried-and-tested instrument of quantity control. Implemented as a cap-and-trade system without auctions or complicated carbon leakage regulations, it could easily be extended to other countries at the start of each new trading period. The new participating countries would have to agree on a common reduction path with the existing participants, and the distributors of the new participating state would have to be made subject to the trading system.

4.3 Border adjustment mechanism

The European Commission intends to mitigate disadvantages in international competition for European companies due to stricter climate protection regime by introducing a so-called "border adjustment mechanism". The aim is to make imports from regions where CO_2 is not or only slightly priced more expensive and in doing so,

compensate for the higher CO_2 costs of EU products. Three options are currently being discussed:

1. CO_2 tax on domestic and imported goods,
2. import tax in the amount of allowance prices in the EU ETS,
3. obligation for non-European suppliers to purchase ETS allowances.

None of these options has been described in more detail so far. Aside from administrative issues, the project particularly raises questions about trade policy risks in the context of the WTO (World Trade Organization).

At the same time, it is being discussed whether the introduction of such a border adjustment mechanism would mean that existing instruments to protect domestic companies from carbon leakage could be dispensed with. This concerns, for example, the free allocation of allowances in the EU ETS or the electricity price compensation to offset indirect CO_2 costs.

Evaluation

The Commission has so far remained vague in its description of a CO_2 border adjustment mechanism. At present, there is more to suggest that it could be difficult to effectively address the issue of differing international climate protection ambitions with this measure.

Effective avoidance of circumvention and conformity with WTO law are indispensable. The latter has high thresholds and would require the recording (and verification) of the CO_2 footprint for many products at domestic and international level. A simple, workable classification of products according to their CO_2 intensity is not apparent, raising a risk of disproportionate bureaucratic effort for administration and industry as well as considerable information problems. Generalized classification could trigger further distortions (unjustified discrimination, trade detour and trade law conflicts). At the same time, a mechanism that penalizes a high carbon footprint of products should also allow compensation for the export of low-carbon products, i.e. such exports would have to be relieved.

Border adjustment measures would also shift European legislation on carbon leakage protection to the currently particularly uncertain field of international trade policy. Border measures can quickly form a gateway for protectionism and trade policy countermeasures. So far, no convincing concept is known to exist for the EU that brings together climate protection goals, economic necessities, compatibility with international obligations, and political enforceability. Moreover, a compensation instrument is not to serve the purpose of opening up new sources of fiscal revenue for the EU Commission.

Border adjustment mechanisms are no suitable replacement for free allocation of EU ETS allowances and electricity price compensation. The reduction of free allocation of EU ETS allowances and rising CO_2 costs in combination with further cuts in electricity price compensation make extended carbon leakage protection necessary for the foreseeable future.

Recommended action

The Commission's plans to implement a border adjustment mechanism should be examined carefully, as it is not clear whether and how it can effectively address the problem of differing international climate protection ambitions. Therefore, an assessment of alternative instruments that ensure and continue to protect companies from carbon leakage should take place. Practical feasibility, potential impacts on complex value chains and networks, and on the export side of the economy should be assessed in detail when evaluating alternatives.

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