1. The problem

Under the current policy, Germany does not stand a chance to meet its obligations under the EU Effort Sharing Regulation: By 2030, carbon emissions in areas not covered by the EU emissions trading will have to be 38 percent below 2005 levels; as early as 2021, a limit applies that will be tightened year after year. Because of the foreseeable failure (see figure), a threat of billions of euros in fines and a serious damage to the credibility of EU climate policy are imminent. A socially balanced solution is needed: it mainly affects the transport and heating sectors, i.e. driving and living.

The price signal in the EU Emissions Trading System only slows down half of Germany’s carbon emissions. Not much is happening with the rest – and obligations under European regulation force the government to act. This policy brief shows the way out.

2. The background

There are some efforts to limit carbon emissions even in the German transport and heating sectors, for example by implementing vehicle fleet standards at EU level or funding programmes for heating systems. However, no price tag is attached to climate gas, let alone announced future price increases. This gives little incentive to invest in low-emission technologies. Social balance is not taken into account.

3. The solution

It is necessary to also target areas not covered by the EU Emissions Trading System and make the paradigm shift from regulation to the market-based approach of carbon pricing. This can be designed in a socially balanced way.

Thinking on a European level. The medium to long-term goal is a uniform carbon price across all sectors in the EU. This lowers emissions where it is cheapest, and they must be cut at unprecedented speed. The best framework is the EU emissions trading. However, this requires time-consuming political coordination processes.

A carbon price as a key instrument of climate policy: a trend worldwide

Only 5 percent of global greenhouse gas emissions in the period 2005 to 2010 were subject to carbon pricing, mainly in the EU Emissions Trading System. By 2018, the coverage of existing and new schemes had increased to 20 percent, in 57 tax and emissions trading schemes at national and sub-national levels. These include California and the Regional Greenhouse Gas Initiative in the Northeast of the USA. In the meantime, even China is considering carbon pricing. There are also initial institutions for coordination.
3. The solution (continued from page 1)

to create the proper framework and burden distribution and is
the perspective for the period starting in 2030 at the latest.

Getting on board quickly. An initially national carbon pricing
can be implemented through taxation or a separate emissions trading. Both instruments are basically equivalent if they are
arranged appropriately. From an administrative perspective, a
carbon tax is easier and faster to implement. Empirically founded
assumptions about “elasticities” – how much a price increase
actually slows down the demand for climate-damaging products
– make it possible to estimate suitable carbon prices to achieve
the promised emission reductions from 2021 to 2030.

Determining pathways. For a carbon tax, a pathway of 50
euros per tonne of CO₂ in 2020, increasing gradually to 130
euros by 2030, is appropriate. In the transport sector, the current
energy taxes continue to remain until a fundamental financial
reform has taken place. They can be justified independently of
climate policy, for example with air pollution or infrastructure
costs. A corresponding pathway is also available for a national
emissions trading: In order to avoid speculative price fluctuations
misleading investors, the system needs a collar of minimum and
maximum prices, 35 to 70 euros (2020) and later 70 to 180
euros (2030). Also, monitoring by an appropriate institution is
needed so that the carbon pricing can be adjusted on the basis of
evidence; this is specifically important when it comes to a tax.

Keeping an eye on the electricity sector. In parallel with the
national launch, Germany should push ahead with the carbon
pricing under the umbrella of the EU emissions trading. A mini-
umum price should be quickly introduced here as well: the system
still does not provide a reliable framework for long-term invest-
ment. Advances in transport and heating, such as e-mobility and
heat pumps, also depend on rapid decarbonisation of the elec-
tricity sector, which is covered by the emissions trading.

Introducing a climate dividend. A carbon price of 130 euros
per tonne in 2030 means 37 cents more per litre of fuel and
230 euros more annually for gas heating of an 80-square-metre
flat. But the state can redistribute the revenue as a per-capita
refund (“climate dividend”) and reduce other taxes. Climate-
friendly action is thus rewarded. On average (see figure) poorer
households see relief, and there is hardly any difference between
city and country. For particularly affected groups, such as long-
distance commuters, hardship clauses must be considered.

4. Complementary measures

Carbon pricing should be the central instrument of
climate policy. However, supplemental information
tools can assist in overcoming consumer myopia.
Spatially and temporally differentiated toll systems
can also be useful to combat congestion, noise, and
air pollution. Moreover, the historically uncontrolled
growth of taxes and levies in the transport and
heating sectors in Germany should be corrected.

It is also important to keep an eye on the competi-
tiveness of the economy. As long as other countries
do not pursue an ambitious climate policy, German
policymakers must take a pragmatic approach. For
example, companies in the transport and heating
sectors could initially continue to receive energy tax
exemptions within the carbon pricing reform.