

## Taiwan-Germany Climate Policy and Carbon Pricing Forum

### Emissions Trading for Transport and Heating Fuels in Germany

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# Emissions Trading for Transport and Heating Fuels in Germany

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# Outline

Why do we need the nEHS?

Basics of the German national ETS (nEHS)

How do EU ETS and nEHS differ?

Basics of the EU ETS 2

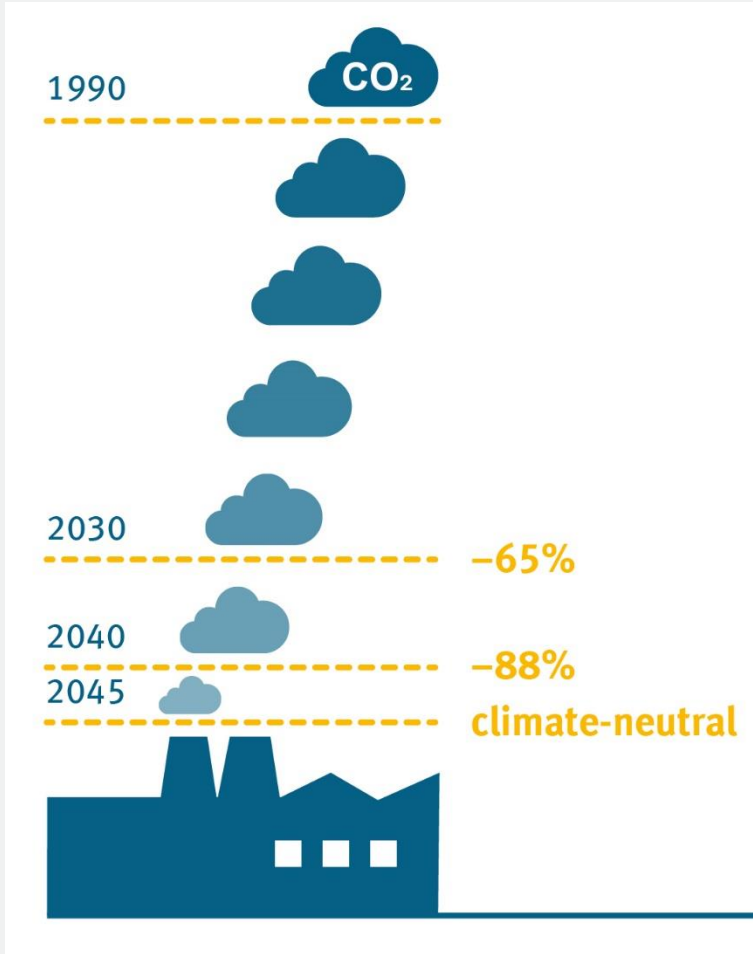
Difference between nEHS and EUS ETS 2

Impacts of carbon pricing in the transport and building sector

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Recommendations for the revenue recycling

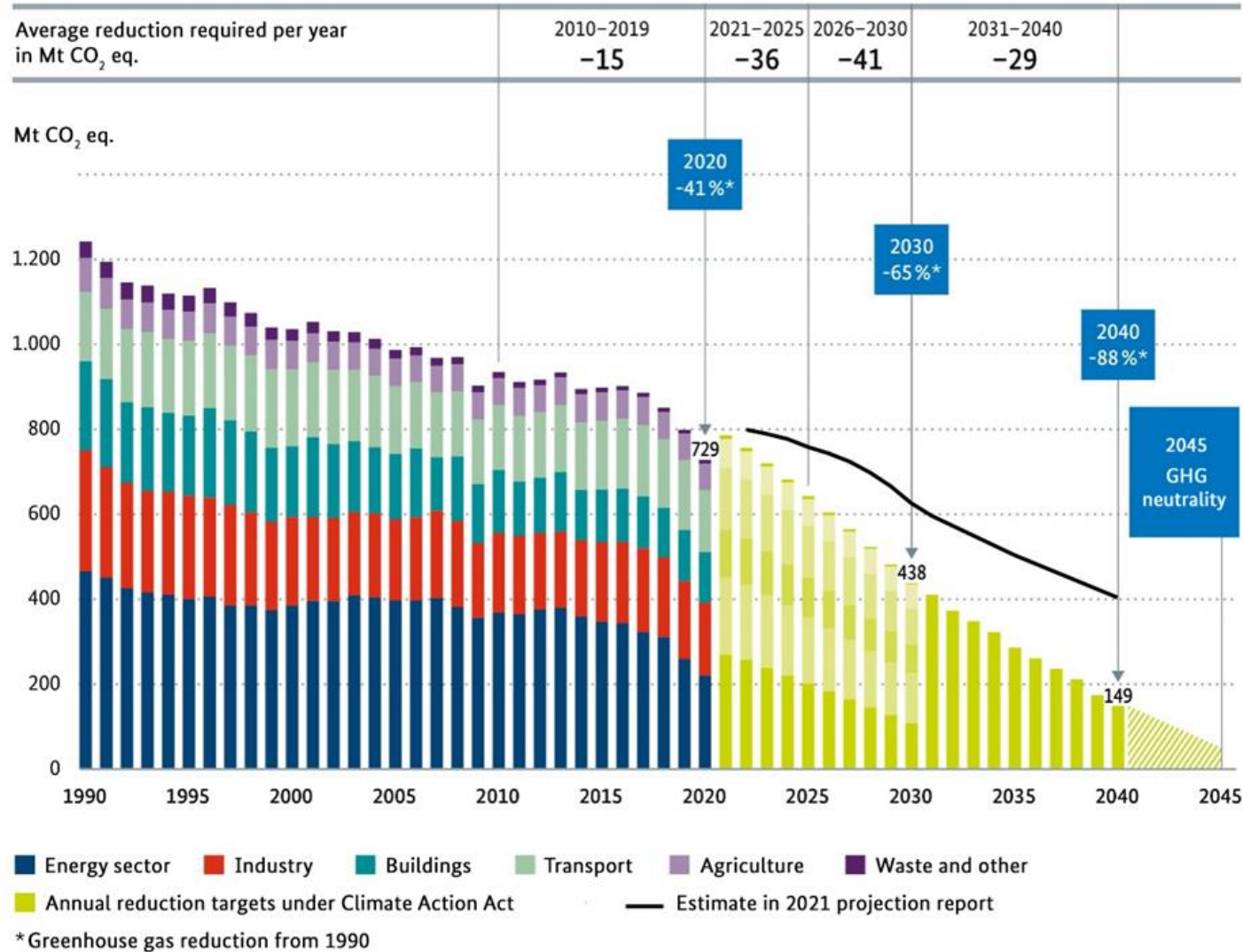
# Why do we need the nEHS?



Source: own illustration; German Environment Agency

- The German climate law (KSG) sets national and sectoral emissions limits to achieve climate neutrality by 2045
- Climate targets are continuously reviewed by the Expert Council for Climate Issues
- So far, biggest emission reduction in the sectors of the EU ETS
- ESR sectors, mostly the sectors transport and buildings, are much behind
- Introduction of the national emission trading system (nEHS) as one central pillar for more ambition in the transport and buildings sector

# Emission trends and future targets



Increased level of ambition since revision of the Federal Climate Change Act in summer 2021:

GHG neutrality by 2045

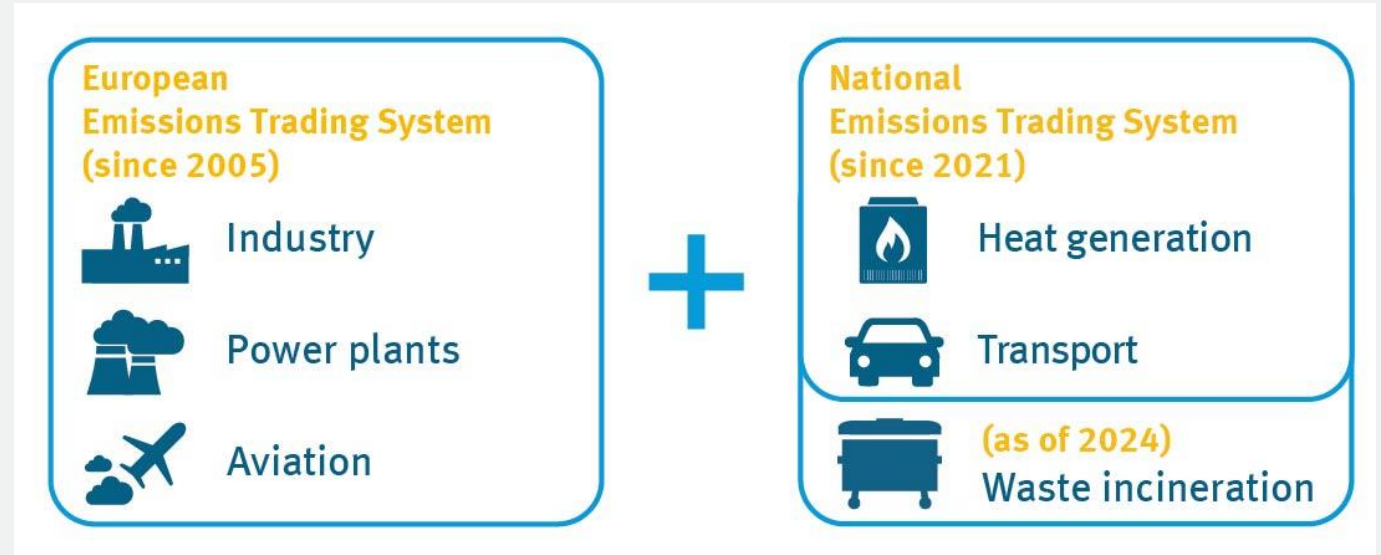
GHG reduction of at least

- 65 % by 2030
- 88 % by 2040.

# Basics of the German national ETS (nEHS)

## Scope of the nEHS

- December 2019: the **Emissions Trading Act for Fuels (BEHG)** implementing the nEHS came into force
- **The goal is to introduce certificate trading for fuel emissions**
- Scope includes mainly emissions of the **heating/building and transport sectors**
- **(Small) industries** outside the EU ETS scope are also included
- From 2024 **waste incineration** will be covered

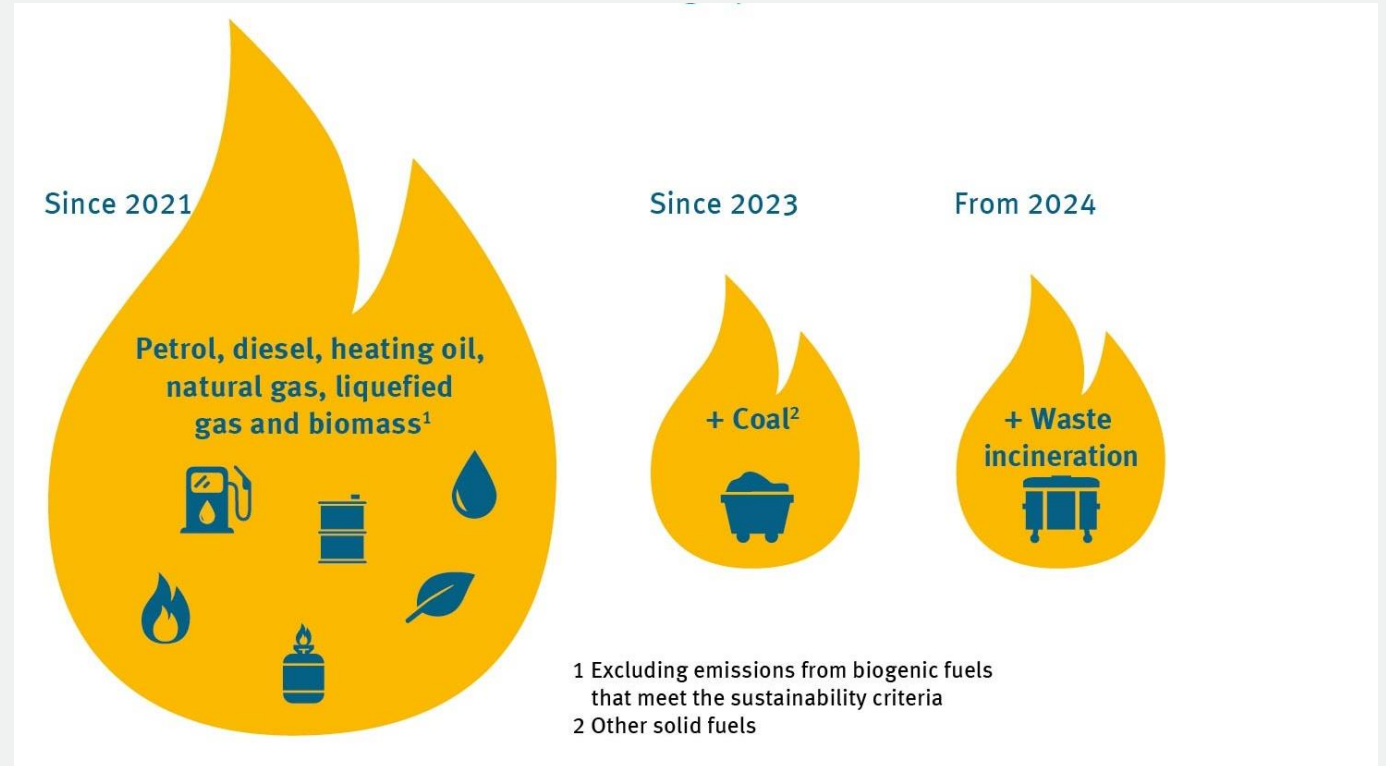


Source: own illustration; German Environment Agency

# Basics of the German national ETS (nEHS)

## Scope of the nEHS: What fuels are subject to BEHG?

- BEHG applies to fuels distributed as listed in Annex 1 of the Emissions Trading Act for Fuels (BEHG)
  - All fuels whose combustion have the potential to cause CO<sub>2</sub> emissions
  - Corresponds to energy products pursuant to Energy Tax Act (EnergieStG)
- Fuels covered
  - from 2021: E.g. petrol, diesel, heating oil, liquefied gas, natural gas, biofuels that do not meet the sustainability criteria;
  - from 2023: coal and other fuels
  - from 2024: waste incineration

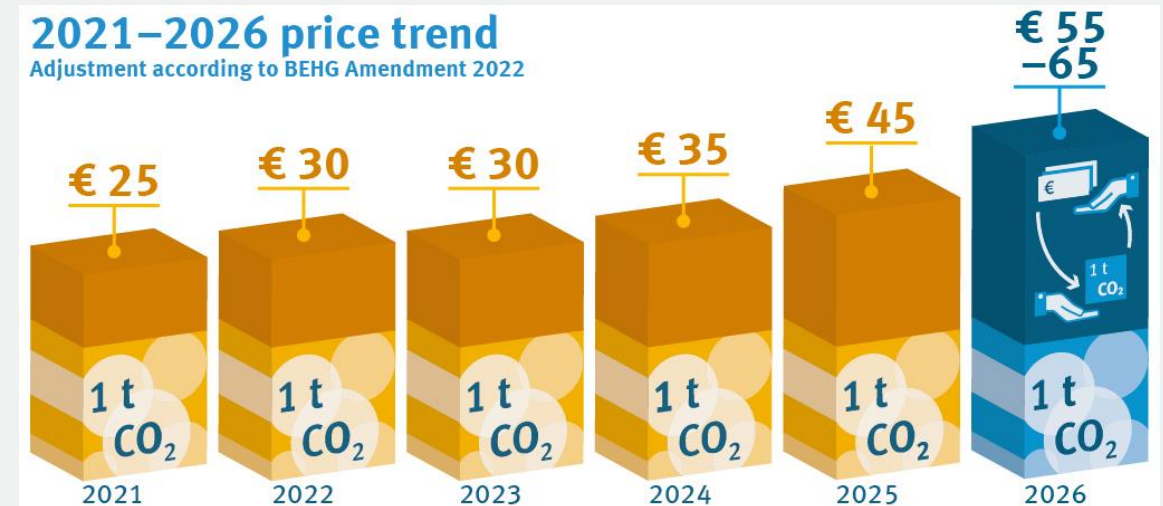


Source: own illustration; German Environment Agency

# Basics of the German national ETS (nEHS)

## What is the CO<sub>2</sub> price in the nEHS?

- From fixed price to free price formation on the market (from 2027 onwards)
  - Allocation via sale/auctioning of all allowances by the government; no free allocation
  - Fixed prices in the introduction phase (2021 – 2025)
  - 2026: regulated price formation within a price corridor
  - *From 2027: Transition into the EU ETS 2: Price formation on the market with a fixed volume of greenhouse gases all participants combined are permitted to emit (→ emissions cap)*
- The cap is determined by the German emissions' share of the covered sectors as laid down in the EU Effort Sharing Regulation



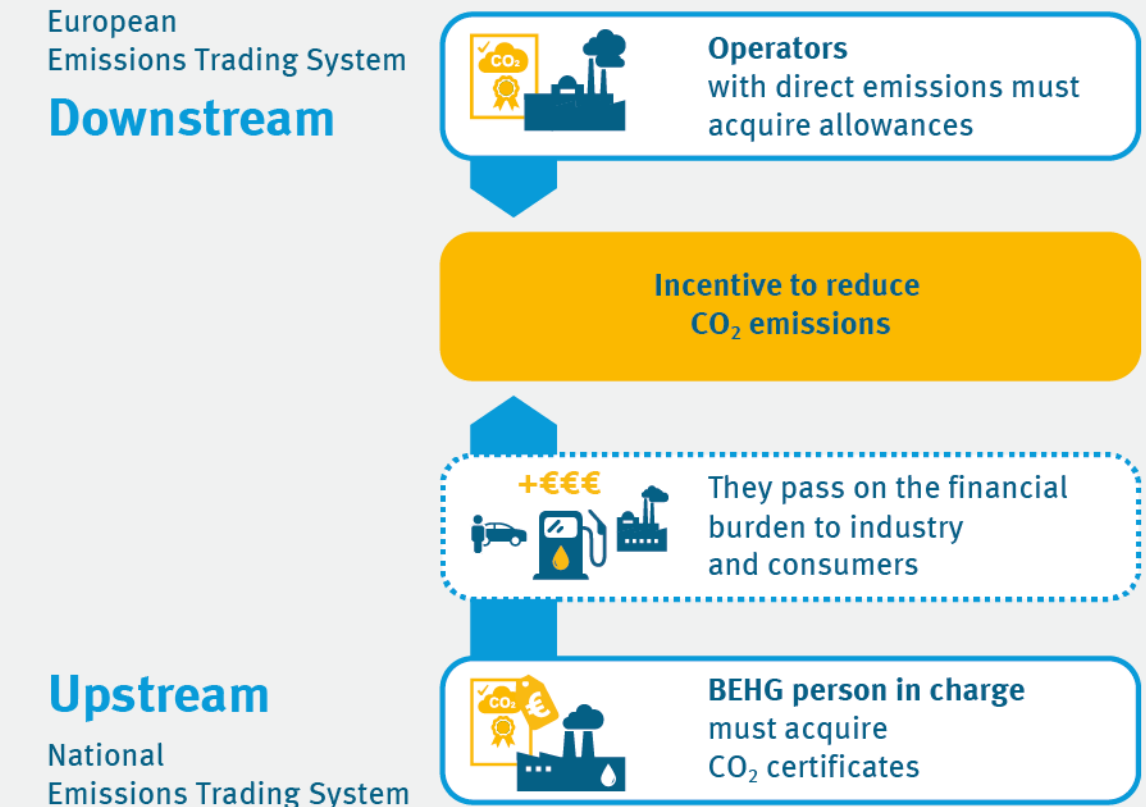
Price for 2024 shall increase to € 40 and for 2025 to € 50 – decision by Bundestag still pending.

Source: own illustration; German Environment Agency



# How do EU ETS and nEHS differ?

- BEHG obliges the fuel distributor
  - In the run-up to use, **potential emissions** are recorded, **not the actual emissions** that occur later when the fuels are used (upstream).
- Linking to the emitter is not possible in the heat and transport areas due to the large number of emitters.
- Therefore: passing on costs along the value chain → to consumers
- Possible overlaps are taken into account:
  - Ex ante: avoiding costs in advance
  - Ex post: refunding by subsequent compensation

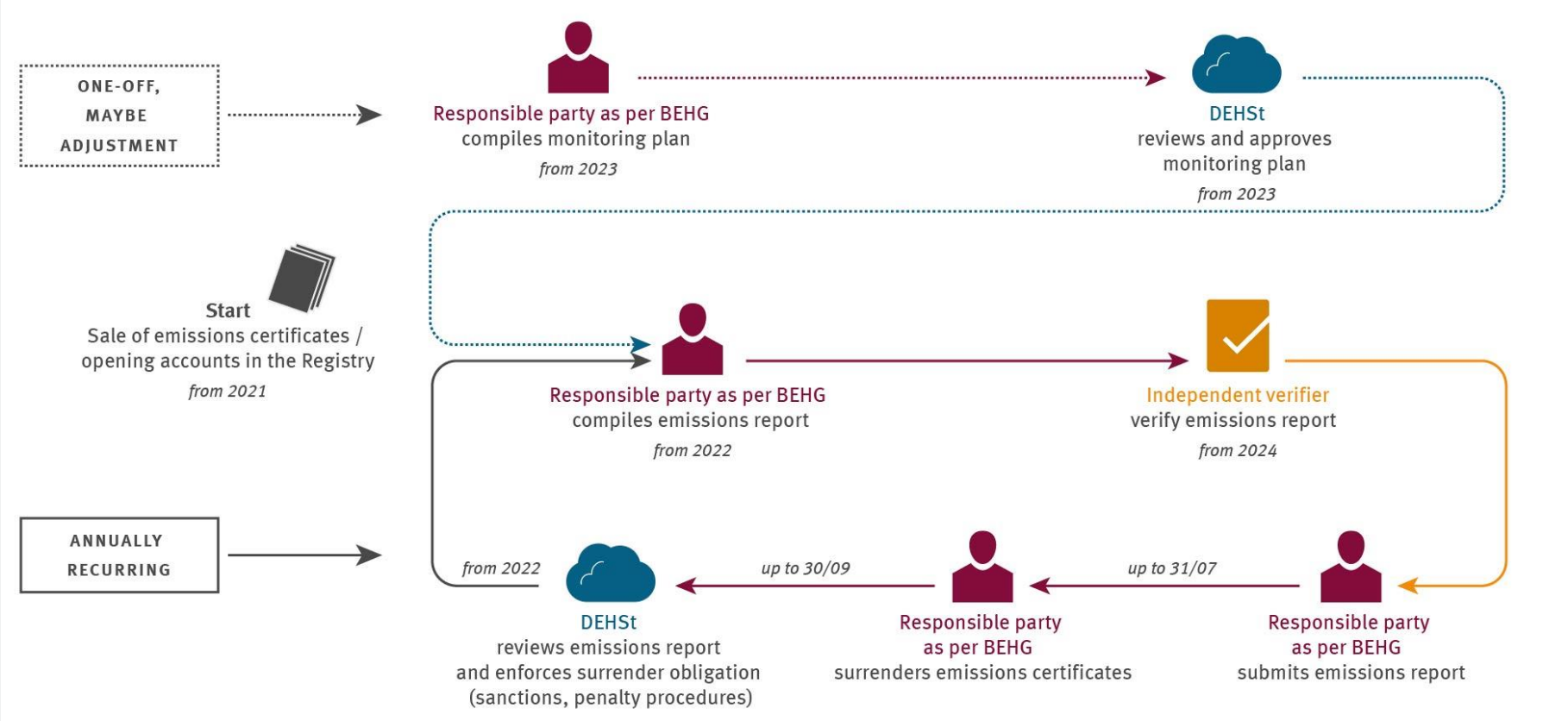


Source: own illustration; German Environment Agency

# Basics of the German national ETS (nEHS)

## Compliance cycle

- Simplified reporting obligations for selected fuels



Source: own illustration; German Environment Agency

# Basics of the EU ETS 2 starting in 2027

## The German nEHS as a preceding model for the European level

- Fit for 55 package:
  - Decision to introduce a new and separate ETS **for buildings, road transport and additional sectors** on EU level
  - to achieve a **42% emission reduction** in 2030 compared to 2005
- As in the nEHS, a price is set on fossil fuels via an **upstream system** covering fuel distributors
- Allocation of allowances only through **auctioning**
- The price is set through a **cap and trade** system, with an ambitious linear reduction factor (LRF > 5% p.a.)
- New **Social Climate Fund and obligation for member state's revenue recycling** to address the social impacts from the ETS 2 on vulnerable groups in the EU:
  - (1) Temporary **direct income support in particular** for vulnerable households,
  - (2) support measures that **reduce emissions** in road transport and building sectors in order to reduce costs of **vulnerable households**, micro enterprises and transport users

# Basics of the EU ETS 2 starting in 2027

## The implementation of the EU Fuel ETS in Germany and its challenges

- **Start of the system:**
    - Monitoring/reporting based on historical emissions in 2024 (emissions report by 30 April 2025)
    - Monitoring/reporting based on actual emissions in 2025 and 2026
    - **From 2027:** Monitoring and reporting **with compliance obligations**/surrender of allowances in 2028
  - Differences in ETS design between the German nEHS and EU ETS 2:
    - Scope, MRV, Price formation and Compensation/double counting
  - Challenges of the implementation in Germany:
    - Generally, **transfer of nEHS into EU Fuel ETS** (without having two parallel systems)
    - **Identification of final consumers/end use sectors** necessary in EU Fuel ETS to ensure fuel use in respective sectors covered under the system and for reporting purposes
    - **Short timeline** for adoption of regulations/delegated and implementing acts on MRV, compensation mechanisms, auctioning, registry
- } No surrender of allowances

## Difference between nEHS and EU ETS 2

- Main differences in ETS design

	nEHS	EU ETS 2
Scope	Covers all fuels pursuant to energy tax	<ul style="list-style-type: none"> <li>■ Excludes fuel use in remaining transport sector, agriculture sector as well as waste incineration</li> <li>■ Opt-in possible</li> </ul>
MRV	<ul style="list-style-type: none"> <li>■ Compliance deadlines:               <ul style="list-style-type: none"> <li>■ Reporting 31.07.</li> <li>■ Surrender allowances 30.09.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>■ Compliance deadlines:               <ul style="list-style-type: none"> <li>■ Reporting 30.04.</li> <li>■ Surrender allowances 31.05.</li> </ul> </li> <li>■ Identification of final consumers/end use sectors of fuels</li> </ul>
Price formation	<ul style="list-style-type: none"> <li>■ Fixed price phase 2021-2025</li> </ul>	<ul style="list-style-type: none"> <li>■ No fixed price phase, price formation on the market</li> <li>■ Safeguards to counter risks of excessive price fluctuation</li> </ul>
Compensations/ double counting	<ul style="list-style-type: none"> <li>■ Carbon Leakage compensation</li> <li>■ Mechanisms to avoid double counting with EU ETS</li> </ul>	<ul style="list-style-type: none"> <li>■ Carbon Leakage compensation only in opt-in sectors</li> <li>■ Mechanisms to avoid double counting with EU ETS and other sectors outside EU ETS 2</li> </ul>

# Impacts of carbon pricing in the transport and buildings sector

- Current impact of the nEHS is quite low due to **low prices**: nEHS accounts currently for only a small share of retail energy prices (30 Euro/t CO<sub>2</sub>: about 7 ct/l petrol and 0.6 ct/kWh heat → not even 5% of the price)
- **UBA modelling for the federal Government clearly underlines that current fixed prices are not sufficient** to achieve climate protection targets for 2030
- EU ETS 2 starts in 2027/28 under „Ff55“ with binding cap and market pricing:
  - Price dampening measures – but price level forms depending on ambition level of EU policy-mix and will secure target achievement
  - Emissions reduction in the buildings and transport sector at EU level by 2021 only around 13% (vs. 2005)
  - Target for EU ETS 2 is -42 % by 2030 (vs. 2005): Reduction p.a. must quadruple!
  - This means that (significantly) rising CO<sub>2</sub> price levels are possible and can be expected from 2027 onwards

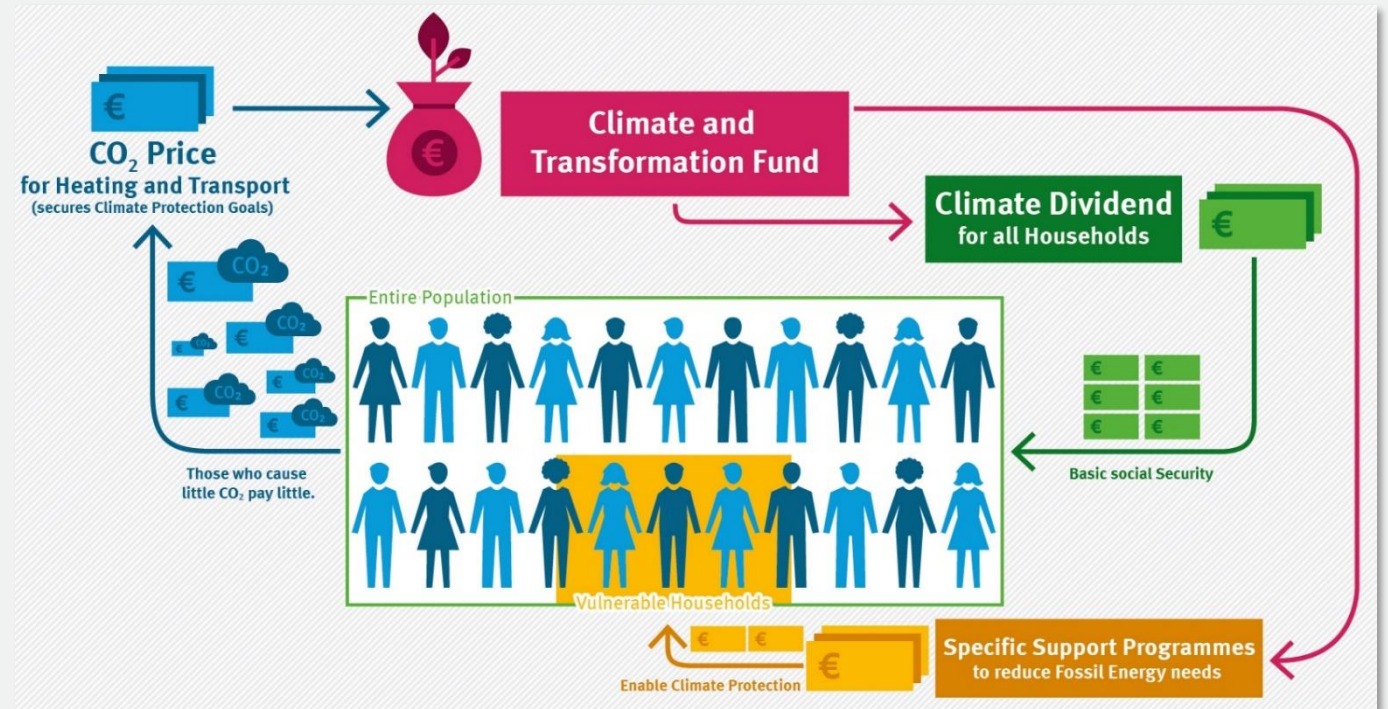
# Impacts of carbon pricing and UBA recommendation

- Implementation of EU ETS 2 is a big improvement in terms of climate protection
- A transparent pathway from nEHS to EU ETS 2 is necessary by:
  - **Doubling the price path** to achieve steering effect
  - **Active communication** to improve anticipation of higher prices by the end consumers
- Absolute and relative burden due to the EU ETS 2 is likely to increase significantly for many households, especially for lower incomes
- Socially responsible flanking of CO<sub>2</sub> pricing is one of the central challenges of climate policy for reasons of acceptance and fairness

# Recommendations for the revenue recycling

## UBA's policy mix concept for socially balanced CO2 pricing

- Social hardship in EU ETS 2 sectors must be avoided
- UBA suggests a policy mix containing:
  - A climate dividend
  - Supplementary support programs for vulnerable households
- this ensures social justice and public acceptance
- recently published [scientific input](#) available at our website



Source: own illustration; German Environment Agency



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**Thank you for your attention!**

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This presentation is based on a speech held by the German Emissions Trading Authority (DEHSt) and is not clear for publication. Check against delivery. References and quotations from the presentation must at all times be approved in written form by the DEHSt.

