

Evolution of the German GHG- quota system

Short presentation Strommarkttreffen

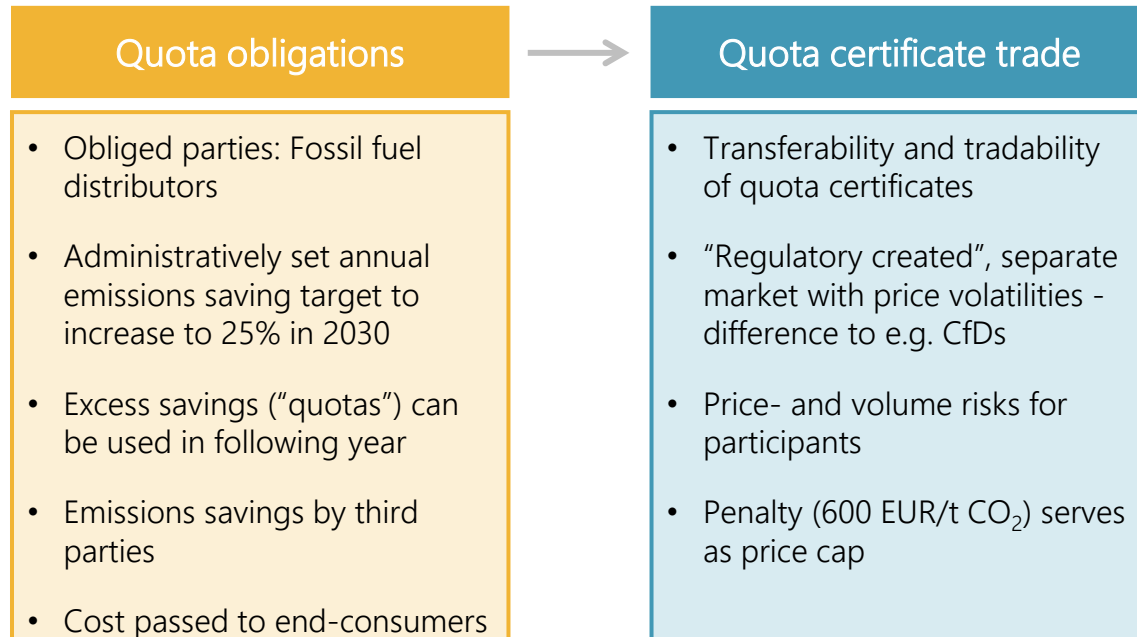
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As the key policy tool to incentivise the decarbonisation of the transport sector the GHG quota focusses on emissions reductions

Two main components ...



State-mandated system, but not a „classic“ government subsidy (e.g. CfDs, FiTs)

Additional revenue source for low/ negative emission alternatives

... and various additional complexities



Multi-technology system with an increasing variety of fulfilment options (e.g. EV, hydrogen, biodiesel ...)

- "Merit order"
- Linkages to other markets
- Quota imports



Multiple counting, caps and sub-quotas defined by the legislator

- Strong regulatory impact (not „technology-neutral“)
- Different value of certificate categories and price differentiation



Complex sustainability certification and requirements for various fulfilment options (e.g. third-party certification and audit)

- Difference to green electricity certificates
- Different sustainability qualities (carbon intensity scores) contribute to order of fulfilment options/ projects

GHG quota system characterised by familiar elements, higher complexity and continuous evolution



Similarities with other green certificate schemes (e.g. banking, role of imports, linkages to other markets) and other quota regimes (dual structure)



GHG quota system defined by **higher complexity** due to the interplay of design complexities and linkages to very different parts of the transport and energy sectors



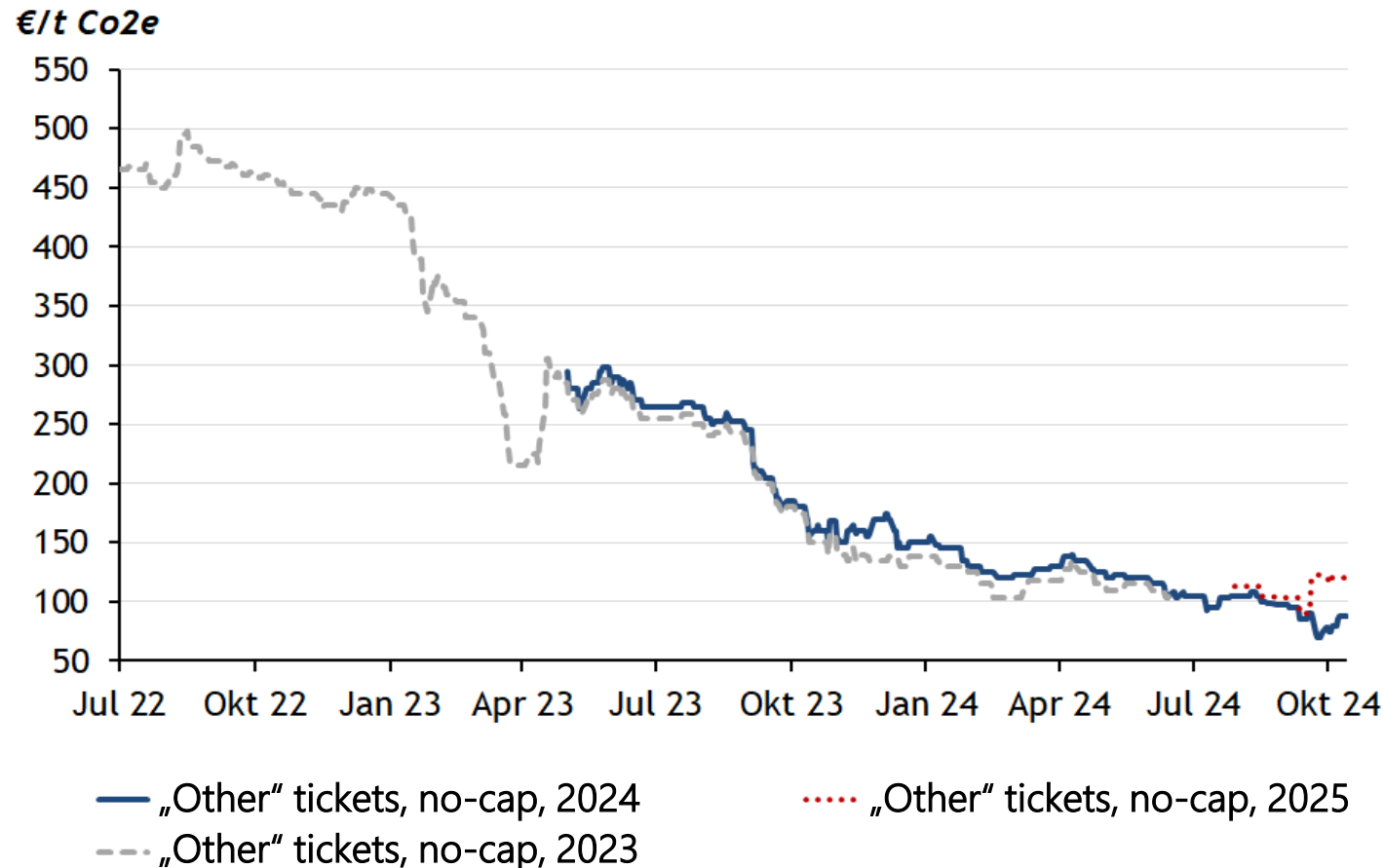
Regulatory system with market dynamics: supply and especially demand are driven by regulatory/ political provisions rendering quota prices difficult to predict



Since creation in 2014/5, the system was **constantly developed further** – discussions about further modifications are currently picking up speed again

German GHG quota market in turmoil following a substantial price drop since early 2023

Continuous decrease of quota prices since price drop



- High prices throughout 2022
→ Increased interest in the market and investment in fulfilment options
- Price drop in early 2023 followed by continuous decrease (c. 80% below peak)
→ Created massive problems for projects and traders
- Massive **oversupply** drives price drop
 - Import of large biodiesel volumes and quotas as well as cheap quotas from upstream emissions reductions (UER) projects from China → (suspected) fraud
 - Demand has (naturally) not increased to the same degree

Source: Argus Media (Oct 2024). Note: „Other“ category includes various fulfilment options, incl. single and multi-countable tickets.

Variety of measures were taken, but future market and price developments remain uncertain

Measures by various authorities

EU

- Investigations of fraud and dumping allegations against biodiesel imports
- Provisional anti-dumping duty on Chinese biodiesel since Aug 2024
 - Final measures in early 2025

DE authorities

- Phase-out of UER projects as fulfilment option accelerated, investigation ongoing
- Removal of quotas associated with some of the fraudulent UER projects proposed
- Proposal to pause transfer of excess quotas for 2025 and 2026

Certificate system provider

- Investigation and integrity audits
- Suspension/ withdrawal of individual biodiesel exporters' certification

Status quo

- **Some (temporary) price increase** after most recently announced measures against UER quotas
- **Lack of long-term solutions** to certification issues and import problems
 - Market participants sceptical of effectiveness of current measures and critical of authorities' reaction (and reaction time)
 - Further measures might emerge in context of the RED implementation and EU trade provisions
 - Discussion of modification of the German quota system (e.g. quota targets, multiple counting)
- **Other fulfilment options** such as hydrogen and RFNBOs set to become more relevant in the future
- Will prices return to pre-2023 levels?

Lessons learned for quota and certificate systems in general

1

Reliable sustainability certification key for i.) effective control of market access and ii.) trust in the emissions savings rewarded under the system

2

Fixed, administratively set targets contribute to price volatilities and policy makers must decide between prioritisation of **target achievement** or “Ratchet effects”

3

Price volatility and uncertainty, including due to regulatory risks and interdependencies with “linked” markets, **increase revenue risk** of renewable projects, complicating business cases and increasing cost of capital

4

Determination of obliged parties influences i.) demand and ii.) who bears the cost

5

Penalty setting affects the effectiveness of quota systems – functions fairly well in the German GHG quota system

Multi-counting of emissions savings undermines real target achievement – but supports early-stage projects and expensive fulfilment options

Trade off between „market-based” mechanisms and policy target achievement



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