IEA Bioenergy
Technology Collaboration Programme

Country update | Germany

Task 39 Business Meeting

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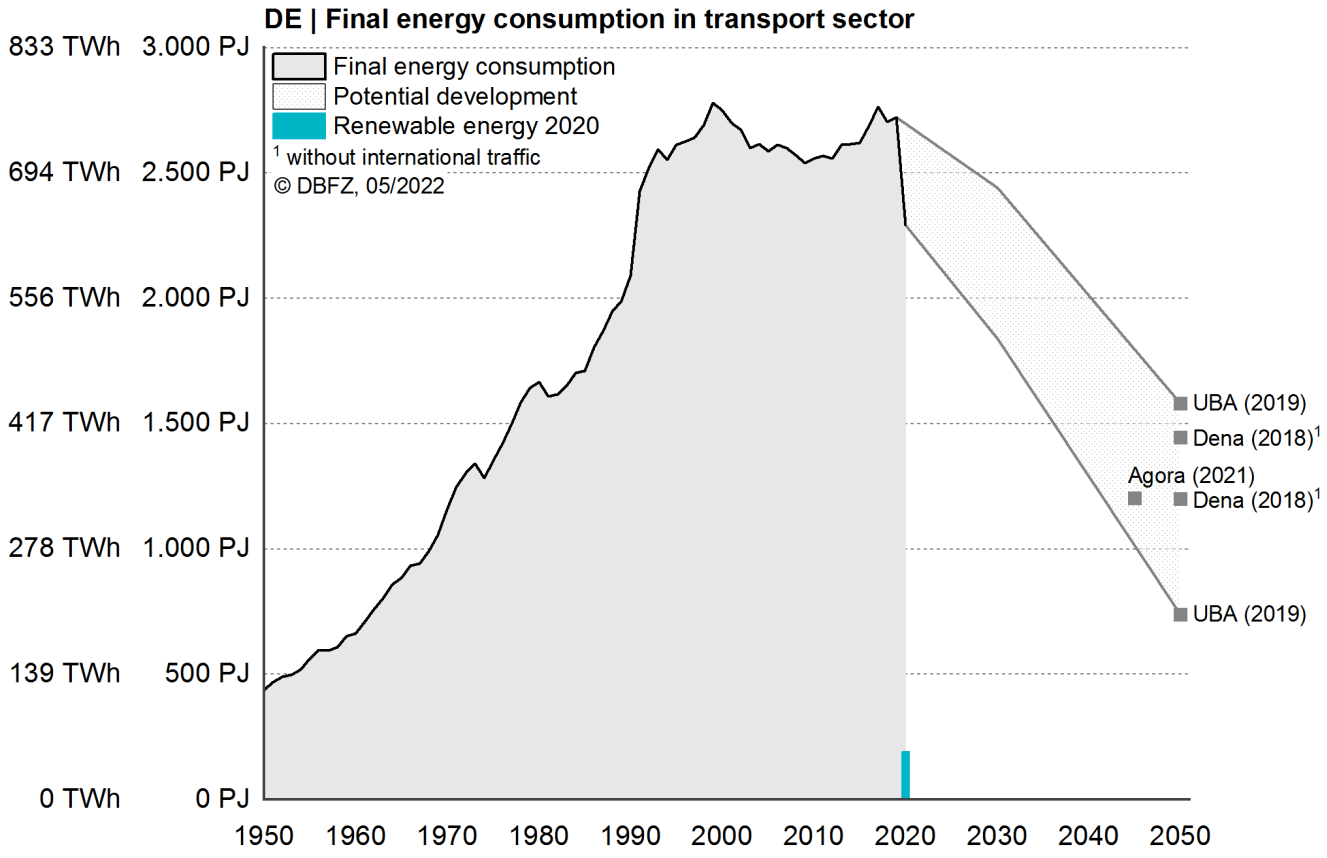
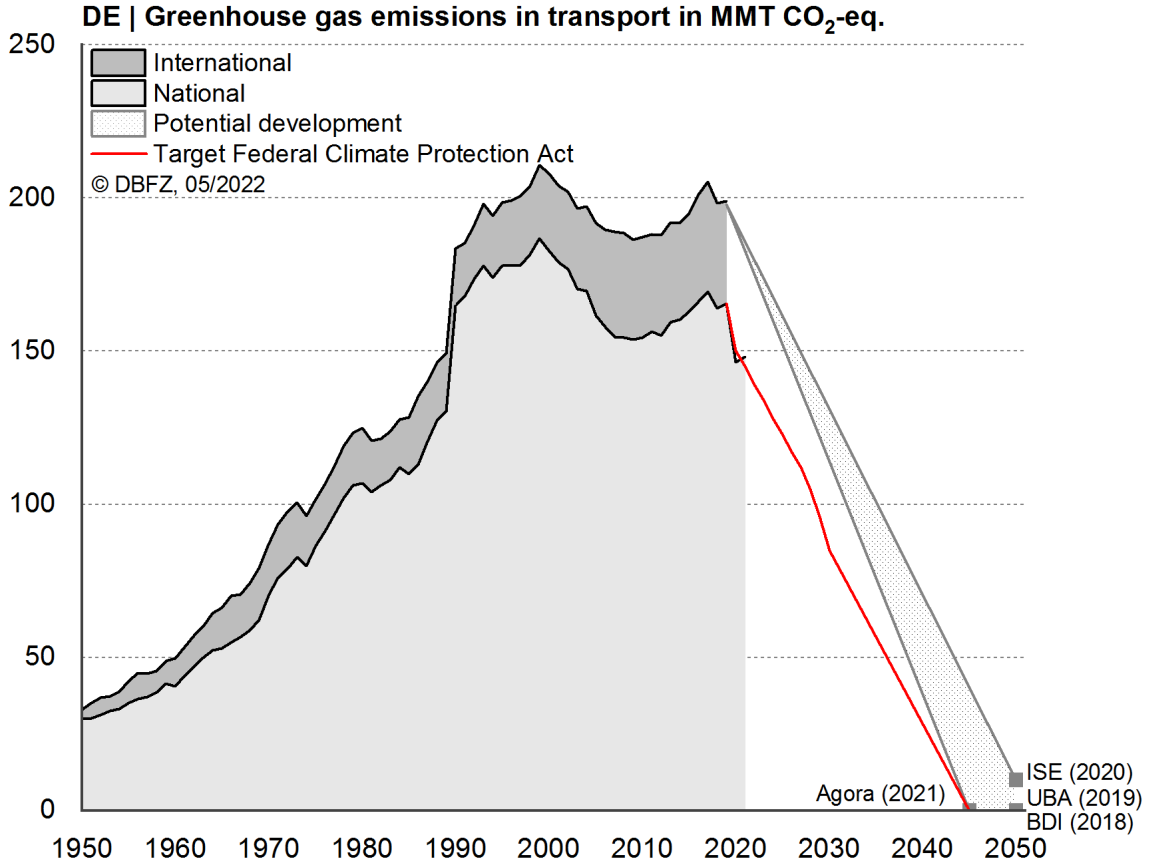
Gävle | September 12. 2022

Status quo and targets

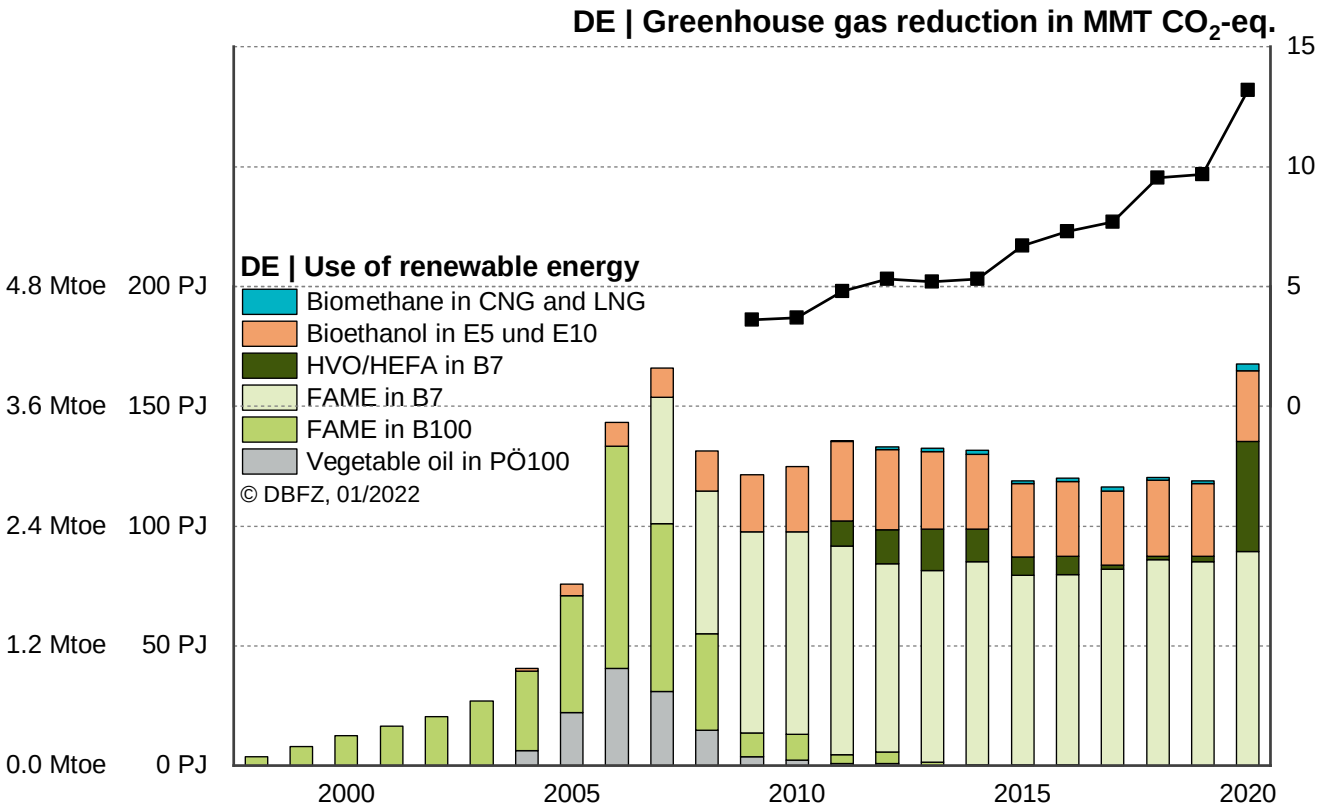
Final energy demand and GHG in transport





References and further information in [Schröder 2022]. assumption on greenhouse gas emissions for the period 1950 to 1989. greenhouse gas emissions 2020/2021 from reporting on the Federal Climate Protection Act.

Fuels and GHG impact within the quota in Germany



- From 2007 Biofuel quota energetic >> 2010-2014 at 6.25%
- From 2015 GHG quota based on GHG reduction: 3.5% by 2015/2016. 4% in 2017-2019. from 2020 6%
- Since 2015 stepwise expansion of fulfilling options. e.g. fossil gaseous fuels. electricity. e-fuels (PTx). and upstream emission reductions (max. 1.2%)
- Status 2020: about 13 million metric tonnes GHG reduction realized by about 167 PJ as substitutes of fossil fuels

Outlook until 2030

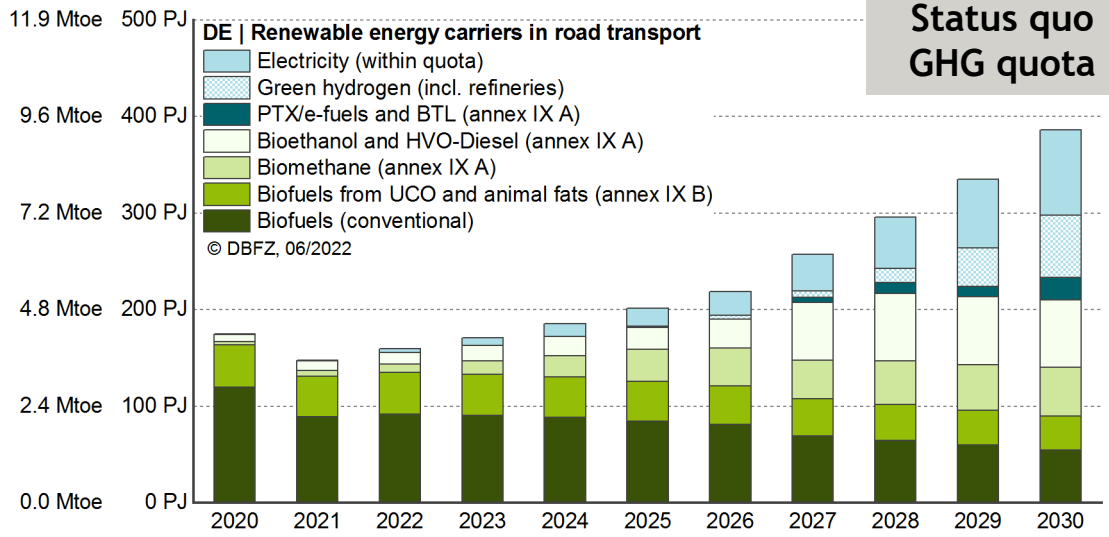
Transposition of REDII into German BImSchG

	Explanation	2022	2023	2024	2025	2026	2027	2028	2029	2030
Quota										
GHG quota (in road transport)	minimum share GHG mitigation	7.0%	8.0%	9.25%	10.5%	12.0%	14.5%	17.5%	21.0%	25%
Advanced biofuels (RED II Annex IX A)	minimum share energetic	0.2%	0.3%	0.4%	0.7%	1.0%	1.0%	1.7%	1.7%	2.6%
PTL-SAF for aviation	minimum share wrt jet fuel energetic					0.5%		1.0%		2.0%
Compliance options										
Advanced biofuels (RED II Annex IX A)	Quantities above the minimum share	2fold counting for quantities about the minimum shares								
Biofuels from used cooking oil (UCO) and animal fats (RED II Annex IX B)	Share energetic	maximum 1.9% >> *slight increase*								
Conventional biofuels from resources that also could be used for food and fodder	Share energetic	maximum 4.4% >> *Phase out to 0% until 2030*								
		from 2023 exclusion of palm								
Green hydrogen and downstream fuels (PTx-fuels /e-fuels)	Use in conventional refineries and for e-fuels	2fold counting >> *3fold counting*								
Electrial power (e-mobility)	Public charger stations + Battery electric vehicles (BEV)	3fold counting; adjustment mechanism >> *4fold counting*								
UER (Upstream Emission Reduction)	GHG mitigation trough UER	maximum 1.2% until 2026 >> *Extension to 2028*								

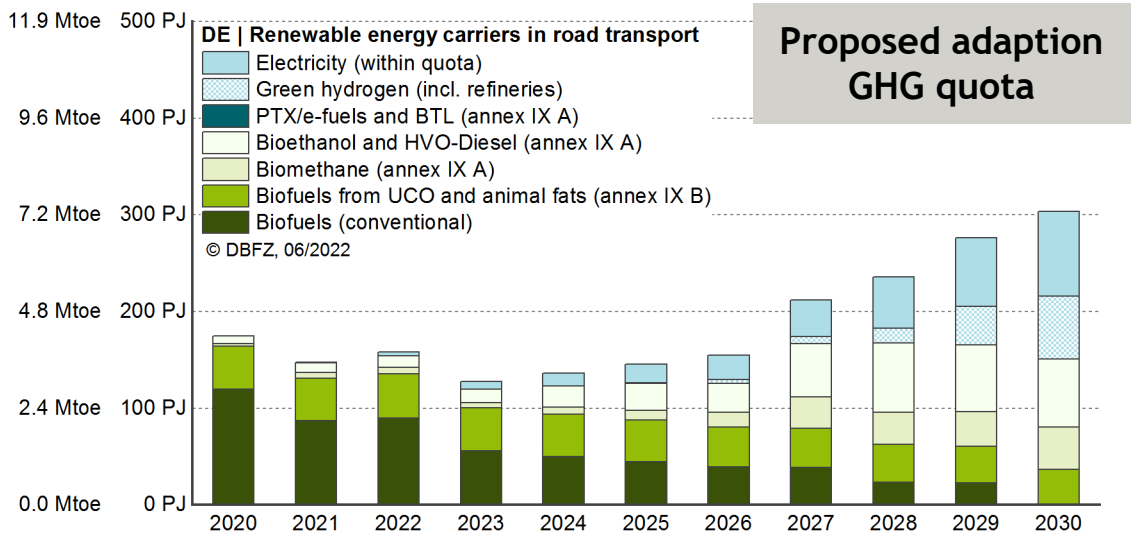
Outlook until 2030

Possible scenarios for GHG quota until 2030 in road transport

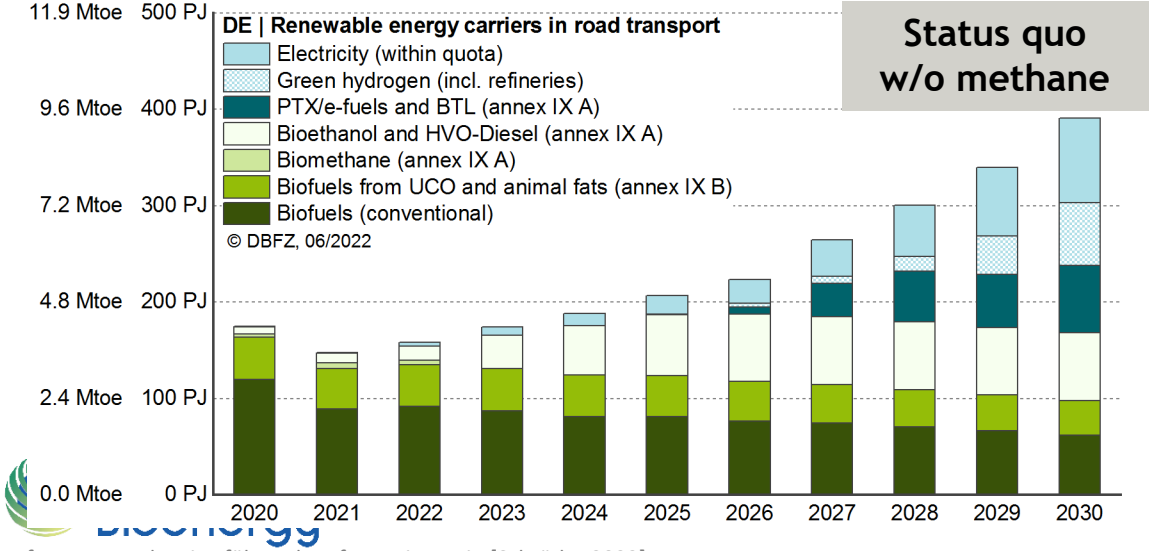
Status quo GHG quota



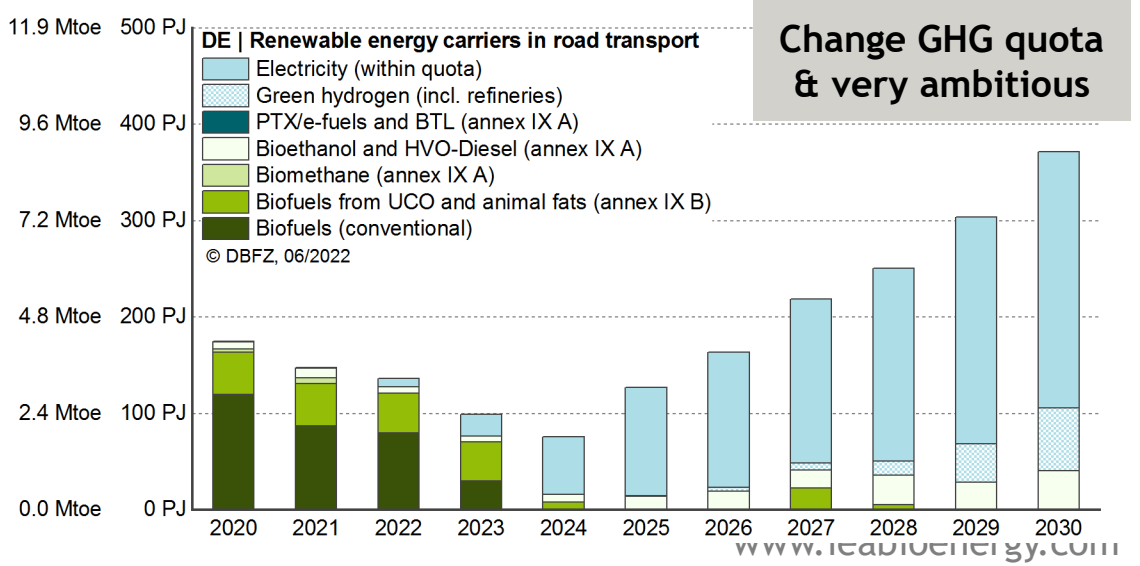
Proposed adaption GHG quota



Status quo w/o methane



Change GHG quota & very ambitious



Referenzen und weiterführende Informationen in [Schröder 2022]

Outlook until 2030

Targets of climate protection law will not be reached

Assumptions for scenarios				
GHG quota		Status quo	Proposed adaptation	
Sustainable transport development		ambitious		very ambitious
Results	Target value			
Renewable energies in road transport				
Share. real		16 %	12 %	14 %
Share accord. RED II	14 %	34 %	30 %	51 %
At reduced final energy demand of [a]		- 15 %	- 15 %	- 28 %
Emission reduction transport				
RED II Revision (Proposal)	13 %	17 %	14 %	19 %
Emission budget (Climate protection law)				
Target 2030	80 Mio. t CO_2-Äq.	+ 24	+ 30	+ 14
Total 2022-2030	994 Mio. t CO_2-Äq.	+ 256	+ 288	+ 158

References and further information in [Schröder 2022]; [a] compared to 2020 (2.209 PJ)

On our own behalf

DBFZ Report 44 online

Monitoring of renewable energies in transport (soon also in EN)

- Political and legal framework
- Transport sector and its infrastructure
- Production technologies
- Mobilizing resources
- Overview market
- Ecological aspects of sustainability
- Economic aspects of sustainability

www.dbfz.de/report-44

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