

MARKEN STATES

# How to raise Europe's climate ambition for 2030?

Implementing a -55% Target in EU Policy Architecture

Dr. Patrick Graichen 10 SEPTEMBER 2020 Raising the EU's 2030 climate target towards -55% is at the center of EU climate policy discussions during the German Council Presidency. A decision is expected by December.





"The EU will lead international negotiations to increase the level of ambition of other major emitters by 2021. By this date, I commit myself to putting forward a comprehensive plan to increase the European Union's target for 2030 towards 55% in a responsible way." – July 2019

President Ursula von der Leyen



"It is important to me in this context that we enshrine Europe's aim to be climate neutral by 2050 in legislation. And so I welcome the European Commission's proposal, as an interim step, of reducing emissions to 50 to 55% of 1990 levels by 2030. With this aim in mind, we will support the work on the European Climate Law." – July 2020

Chancellor Angela Merkel



"[The EU budget] shall comply with the objective of EU climate neutrality by 2050 and contribute to achieving the Union's new 2030 climate targets, which will be updated by the end of the year." – July 2020

**European Council Conclusions** 



### How to raise Europe's climate ambition for 2030? Implementing a -55% Target in EU Policy Architecture Jakob Graichen and Dr. Felix Matthes | Freiburg | Darmstadt | Berlin, 10.09.2020



### Raising the EU's climate policy ambition Current & proposed 2030 EU target architecture for a 55% NDC

- GHG: 40% below 1990 incl. international aviation => 55%
- ETS: 43% below 2005 => 61%
- ESR: 30% below 2005 => 47%
- RES: 32% of gross final energy consumption => tbd
- Efficiency: 32.5% reduction compared to 2007 baseline => tbd
- LULUCF: no accounted net debit
  => tbd
- International shipping excluded
  tbd





### Possible range of ESR and ETS targets



Contribution of ESR and ETS to the 55% target based on Vision Scenario

	ETS	ESR	Aviation		
Max ESR	- 59%	- 49%	- 27%		
Max ETS	- 63%	- 45%	- 27%		
Central Case	- 61%	- 47%	- 27%		



### Revised Effort Sharing Regulation Sharing the effort with a view towards 2050

- Distribution of ESR-targets is based on GDP/capita
- Current targets: richest MS need to reduce emissions by 40 percentage points more than poorest
- Spread needs to be narrower
  - In 2030 poorer MS will have highest per capita emissions
  - On the way to climate-neutrality by 2050 the spread must disappear
  - Low GDP MS must also accelerate climate action by 2030





### Enhanced national contributions and new solidarity mechanisms



- A narrower target spread would require enhanced contributions by lower-GDP member states
  - Approach used : GDP/capita as basis but with maximum spread of 30 percentage points
- As a result, new solidarity mechanisms will be needed
  - Within the ESR: modernisation fund or allocation of allowances with mandatory auction
  - Outside the ESR: dedicated funding from the EU Budget



### Enhancing flexibilities in the ESR

### Activate market based mechanisms

- Currently very little trading of emission quantities and no project based mechanisms
- Creating a market for Annual Emission Allocations (AEA):
  - Enhance transparency (e.g. central information platform)
  - Create price signal through auctions for solidarity mechanism
  - Mandatory auctioning of share of AEA
  - Inclusion of private sector through project based mechanism

### LULUCF Flexibility

- Current rules limit flexibility in size and applicability
- Option 1: increase limit for LULUCF
- Option 2: remove usage restrictions
- Option 3: Set dedicated LULUCF target as separate pillar

### **ETS flexibility**

 Increase limit and/or applicable Member States for cancelling EU ETS allowances (EUAs) for ESR compliance



### The role of the EU ETS

- EU ETS (for stationary sources)
  - Represented 45% of total GHG emissions from the EU in 2005
  - Will need to deliver the larger share of additional GHG emission reductions
- A higher climate ambition for EU ETS
  - Needs more stringent caps for 2030
  - Can be implemented in different ways
  - Creates also reform needs for other EU ETS provisions (MSR, free allocation, revenue distribution etc.)

- Implementing a more stringent cap (61% below 2005 = 805 million EUA)
  - Adjusting the Linear Reduction Factor (LRF) for steady cap contraction
  - Defining the start year for LRF adjustment
  - Rebasing: adjusting the base level for application of the linear reduction factor
- With this cap EU ETS-regulated emissions would represent 39% of total EU GHG emissions by 2030



### Options to implement a more ambitious EU ETS cap (for stationary installations)

### Linear Reduction Factor

- changes between ~1 and ~1.3 pts by each 150 Mt rebasing
- changes depend significantly on the start year for new LRF

#### **Cumulative new allowances**

- decrease between 7 and 8% by each 150 Mt rebasing
- decrease between 1 and 3% for LRF adjustment from 2023 instead of 2025

	Rebasing in Mt CO2 <sub>2</sub>	LRF adjustment from onwards	New LRF	Total new EUA in million EUA (2021-2030)
"EU ETS cap	0	2023	4,60%	12.030
(for stationary	0	2025	5,41%	12.405
installations)	152	2023	3,64%	11.189
61% below 2005	152	2025	4,11%	11.412
(805 million	300	2023	2,69%	10.370
EUA)"	300	2025	2,86%	10.446



### **Flexibility options**

- Four ETS-related flexibility options were explored
  - EU-wide inclusion of whole new sectors
  - Member State(s) include new sectors in the EU ETS
  - Introduction of a separate ETS for transport and /or buildings
  - Member States participate in a separate ETS for transport and/or buildings

- Significant pros and cons exist for each option, assessment depends essentially on views/core beliefs on
  - policy mix and cost-efficiency considerations
  - distributional and competition effects
  - necessary political & administrative efforts/vulnerabilities or compliance considerations
- Generic debates lead to nowhere, its all about specific provisions





Achieving an enhanced EU 2030 climate target will require a policy-mix, in particular for the non-ETS sectors. By mid-2021 the European Commission will propose a legislative package\* that will be decisive in delivering the target.



EU 2030 Climate Target										
Energy	Industry	Bu	ildings	Agriculture & forestry		Transport				
Gas Directive	Green Ste Initiative	el F Bu	Energy Performance of ildings Directive	Farm2Fork Legislation		CO2 Standards Cars				
Electricity Directive	Clean Indus Package	stry e	enovation Wave	Common Agricultural Policy		CO2 Standards Vans & Trucks				
Just Transition in Coal Phase-out	Eco Desig Directive	jn [	Decarbonizing Heat Grids	Land use & Forestry Regulation		Eurovignette Directive				
Cross-sectoral instruments										
Climate Governa Law Regula	ion ETS	Effort Sharing	Energy Taxation Directive	State Aid Guidelines	Rene Dir	ewables ective	Efficiency Directive			

\*Selection of EU policy instruments under consideration for introduction or revision under the EU Green Deal

### Significantly faster emissions reductions in transport and buildings are possible. Member States are beginning to align national targets with higher ambition...



Calculations by Öko-Institut e.V. based on EEA (2020)

#### **Select Member State Targets**

- AT: Net-zero emissions by 2040 and 100 % renewable electricity by 2030.
- **DK:** -70 % overall GHG emissions by 2030
- FI: Carbon neutrality by 2035.
- **IE:** -51 % overall GHG emissions and a 70 % renewable electricity by 2030.
- LU: Non-ETS sector target of -55 % by 2030.
- SE: Net-zero emissions by 2045, as well as interim milestones for the non-ETS sector targets of -63 % by 2030 and -75 % by 2040





### ... and signalling that the days of fossil fuel use in buildings and transport are numbered.

Select national targets for fossil-fuel bans as of June 2020 National goverments with combustion-engine Goverments with fossil-fuel heating bans passenger car phase-out targets Norway 2020 (oil, all buildings) Iceland 2030 **Denmark** 2013 (oil, new buildings) Norway 2025 United Kingdom 2025 (gas, new buildings) Sweden 2030 Ireland 2020 (oil, new buildings); Scotland 2032 2025 (gas, new buildings) Netherlands 2021 (gas, new buildings); Denmark 2030/2035 2050 (gas, all buildings) IreInd 2030 United Kingdom 2035 Germany 2026 (oil, new installations)\* Netherlands 2030 Belgium (Flanders) 2021 (oil, new buildings and major energy efficiency retrofitting)\*\* France 2040 Luxembourg 2023 (oil and gas, new buildings) Slovenia 2025/2030 Austria 2021 (oil, new installations); 2025 (gas, new buildings); 2035 (oil, all buildings) **Spain** 2040 \* When a low-carbon alternative is technically feasible \*\* Under discussion

ICCT (2020) and Analysis based on research by Öko-Institut e.V. (2020)



### **Key Findings**

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An economy-wide -55 % GHG 2030 target is technically and economically feasible to implement. Our central scenario of -47 % for the Non-ETS-sectors -61 % for the ETS-sectors (w.r.t. 2005) represents a reasonable balance

Delivering a climate target of -55 % is possible with a mix of additional domestic and EU measures. Adopting additional member state policy measures, enhancing EU-wide policies and reforming the EU-ETS are key.

Many flexibility options exist for member states to deliver higher climate ambition target in the effort sharing sectors. They do not replace the need for early action and a broader policy mix.

A -55 % target will require changes to the current climate policy architecture and dedicated solidarity mechanisms. Additional efforts by Member States with below-average GDP per-capita levels should be supported within the ESR and in the upcoming EU budget. Agora Energiewende Anna-Louisa-Karsch-Str.2

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## Thank you for your attention!

Questions or Comments? Feel free to contact me: patrick.graichen@agora-energiewende.de

Agora Energiewende is a joint initiative of the Mercator Foundation and the European Climate Foundation.



### Proposed Effort Sharing targets by Member State



- Approach used
  - Distribution based on GDP/capita
  - Spread of 30 percentage points
  - Targets range from -25% (BG) to -55% (IE, LU)
- Other elements (e.g. costeffective potential) could be used to modify individual MS targets similar to existing targets
- Blue bars show targets in ESR max/ ETS max case