

# The decarbonisation challenge – an EU perspective

Presentation for the Association of the Glass and  
Ceramic Industry of the Czech Republic

13/9/2023

# Outline

1. Presentation of Glass Alliance Europe
2. Overview of the main EU legislation regarding climate change
  - A. The EU Climate Law
  - B. The “Fit for 55%” package
3. Focus on two important pieces of legislation from the “Fit for 55%” package
  1. The renewed ETS directive
  2. The new CBAM regulation
4. The main technical solutions to decarbonise the glass industry
5. Conclusions

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# Glass Alliance Europe

- **Glass Alliance Europe** is the European Alliance of Glass Industries. It has the unique feature of regrouping all the glass industries to work on common issues. It is composed of **14 national glass associations** and of the **5 main sectors** of the glass industries: container glass, flat glass, special glass, domestic glass and continuous filament glass fibres.
- The primary mission of Glass Alliance Europe is to provide a common **platform** to the European glass industries to enhance the exchange of information between national and sectoral associations at EU level, thanks to an efficient pooling of resources and expertise.

# 14 national associations

Austria



Belgium



Bulgaria



Czech Republic



France



Germany



Great Britain



Italy



Netherlands



Poland



Slovakia



Spain



[Türkiye Sise Ve Cam Fabrikalari \(TSVCF\)](#)

Turkey

# 5 glass sectorial associations



# Dossiers followed by GAE and associated issue leaders (all coming from national or sectorial associations)

ISSUES	TEAMS	Executive Referent
<b>CLIMATE CHANGE</b>		
1-ETS	F. Rivet, F. Dethier, Ch. Nelles, I. Ganev, C. Janssens, P. Di Discordia	FARRELLY
2- ETD (Energy Taxation)	Ch. Nelles, E. Butaye, X. Capilla, F. Dethier, P. Di Discordia, L. Didillon, Ch. Dimitriadis, I. Ganev, C. Janssens, P. Kardaś, John Mc Vey, Hans Richarts, F. Rivet, Th. Wnuk, P.F. van Rhede van der Kloot, M. Van Valburg, O. Verheijen, Sh. Williams	OVERATH
3- CBAM	Monitoring by F. Rivet	---
4- General Energy and Industrial Policies (incl. HLEG)	I. Ganev, E. Butaye, X. Capilla, F. Dethier, P. Di Discordia, G. Gallo, C. Janssens, P. Kardas, Ch. Nelles, M. Pudner, F. Rivet, O. Verheijen, S. Wolff	CAZES
5- Decarb miscellaneous (consultations, roadmaps, mapping, etc.)	Case-by-case treatment	
6- Taxonomy	Monitoring by Xavier Capilla	
<b>INDUSTRIAL EMISSIONS</b>	I. Ganev, U. Aldenhoff, M. Bailli, X. Capilla, F. Dethier, P. Di Discordia, C. Janssens, M. Pudner, F. Rivet.	DAVREUX

ISSUES	TEAMS	Executive Referent
REACH	P. Di Discordia, U. Aldenhoff, M.L. Bertho, N. Majcher, S. Wolff, X. Capilla, S. Deb, I. Ganev, F. Rivet, J.C. Schneider, S. Tiozzo.	BARON
Chemicals Strategy for Sustainability/ ASMoR	U. Aldenhoff	
Food Contact Materials	X. Capilla, P. Di Discordia, I. Ganev, J.C. Schneider, F. Rivet, S. Webersberger, W. van Veen	IBLED
Circular Economy	S. Webersberger, F. Rivet, I. Ganev, V. Chesnot, C. Janssens, P. Di Discordia	BORDAT
Chemicals at Work	M. Pudner, S. Tiozzo, P. Di Discordia	DALTON
Water	L. Didillon	

# GAE workflows

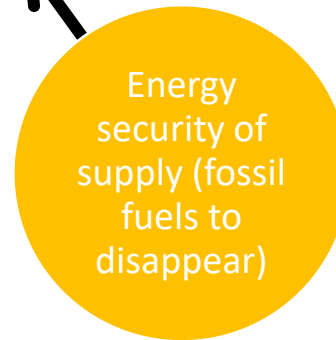
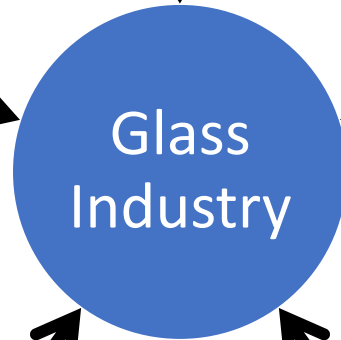
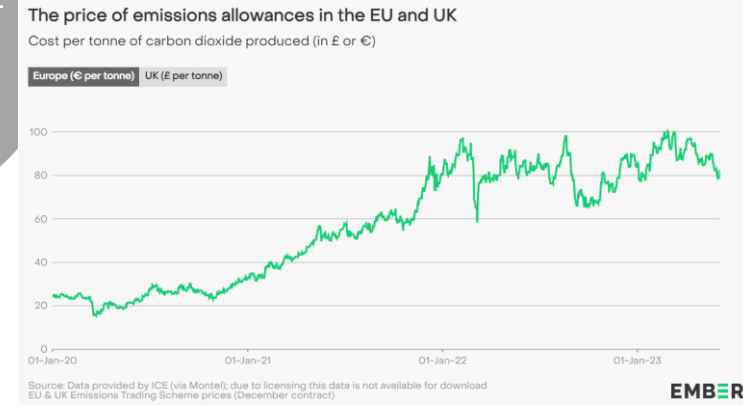
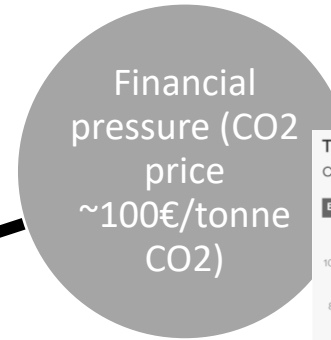
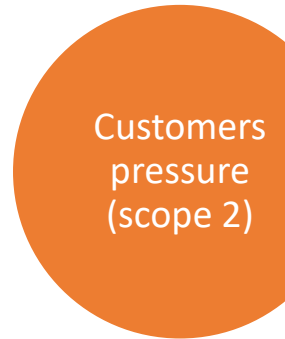
- **GAE Environment Committee**: three times per year, where all topics are discussed
- Ad-hoc WG on the different subjects when needed (often)
- **GAE relies on its members** to share information, get input, draft papers and reach out to policy-makers → **be involved !!**



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# Overview of the main EU legislation on Climate Change



9.7.2021    EN    Official Journal of the European Union    L 243/1

I  
(Legislative acts)

REGULATIONS

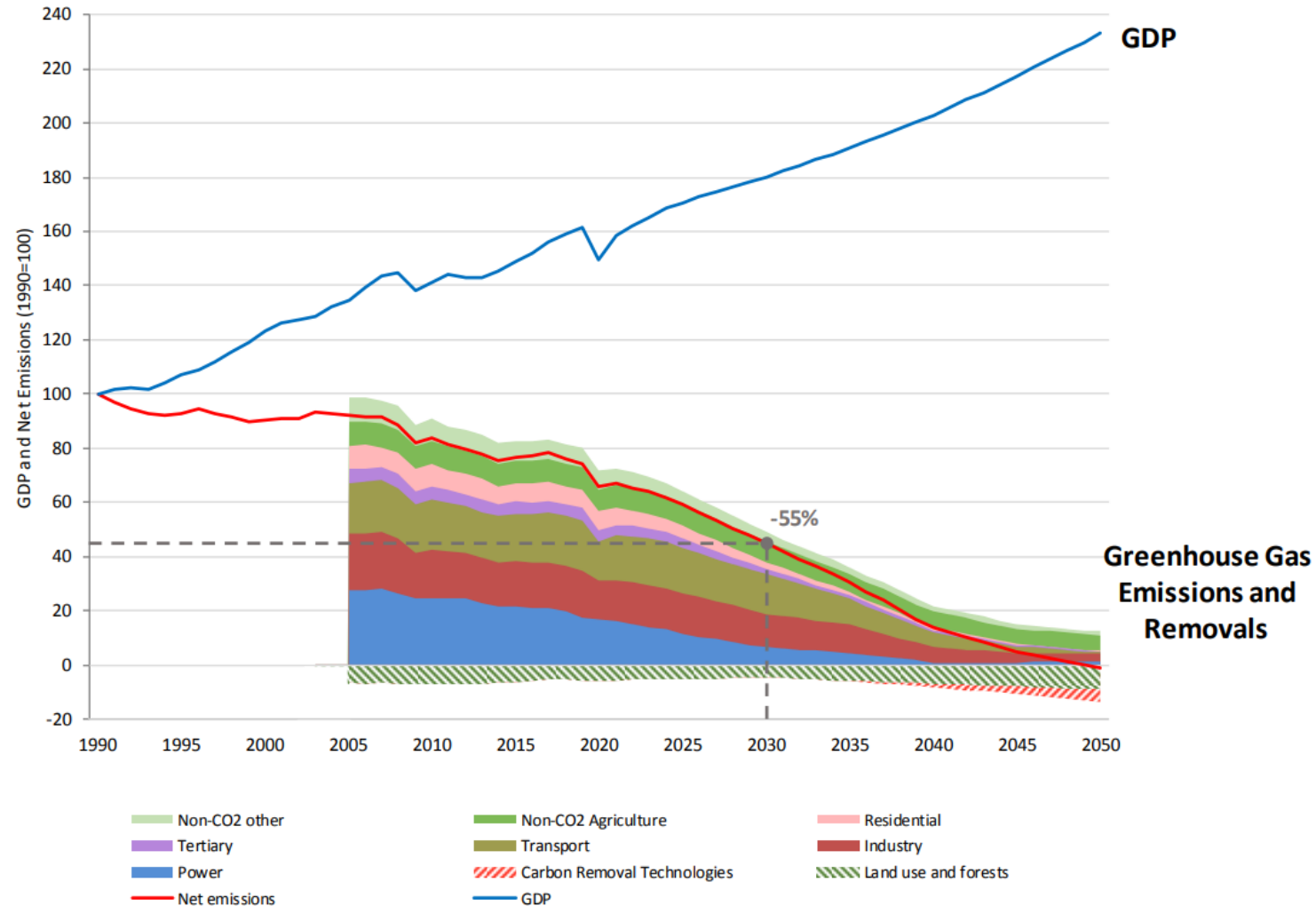
REGULATION (EU) 2021/1119 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL  
of 30 June 2021  
establishing the framework for achieving climate neutrality and amending Regulations (EC)  
No 401/2009 and (EU) 2018/1999 ('European Climate Law')

# A) The EU Climate Law

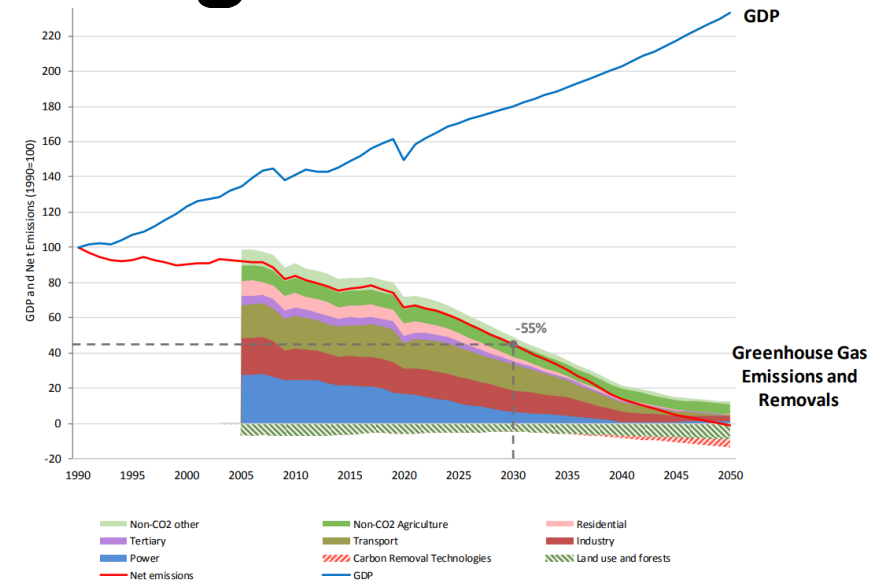
## European Climate Law

(Regulation 2021/1119 of the European Parliament and of the Council of 30 June 2021):

1. EU to be **carbon neutral** by 2050
2. **At least 55% reduction by 2030** compared to 1990 for all EU sectors (and more for ETS !)



## B) The “Fit for 55%” Package



- The “Fit for 55%” Package is a package containing proposals for new and for revised EU laws whose aim is to ensure the EU meets the 55% reduction by 2030 of the Climate Law and is on track for carbon neutrality by 2050
- Published in July 2021
- The “Fit for 55%” Package is an **elephant**: the biggest package ever published by the EU Commission

# The Fit for 55% package: *an overview of the Commission Proposal*

## • Pricing

- 1) a proposal for a Carbon Border Adjustment Mechanism;
- 2) a proposal to revise the EU ETS(EU ETS) incl. maritime and a separate system for road transport and heating;
- 3) a proposal to revise the EU ETS as concerns aviation;
- 4) a proposal to revise Energy Taxation Directive;

## • Targets

- 5) a proposal to revise Effort Sharing Regulation;
- 6) a proposal to revise the Land Use, Land-Use Change and Forestry (LULUCF) Regulation;
- 7) a proposal to revise the Energy Efficiency Directive;
- 8) a proposal to amend the Renewable Energy Directive;

## • Rules

- 9) a proposal to revise the alternative fuels infrastructure Directive;
- 10) a proposal revising Regulation (EU) 2019/631 setting CO<sub>2</sub> emission performance standards for new passenger cars
- 11) a proposal on the production and uptake of sustainable alternative fuels in the aviation sector;
- 12) a proposal on the production and uptake of sustainable alternative fuels in the maritime sector;

## • Support measures

- 13) a proposal for a Regulation establishing a Social Climate Fund.
- 14) a proposal for a Decision to amend Decision (EU) 2015/1814 establishing the carbon market stability reserve

Very relevant
Might impact us
Not relevant

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## A) The renewed ETS directive

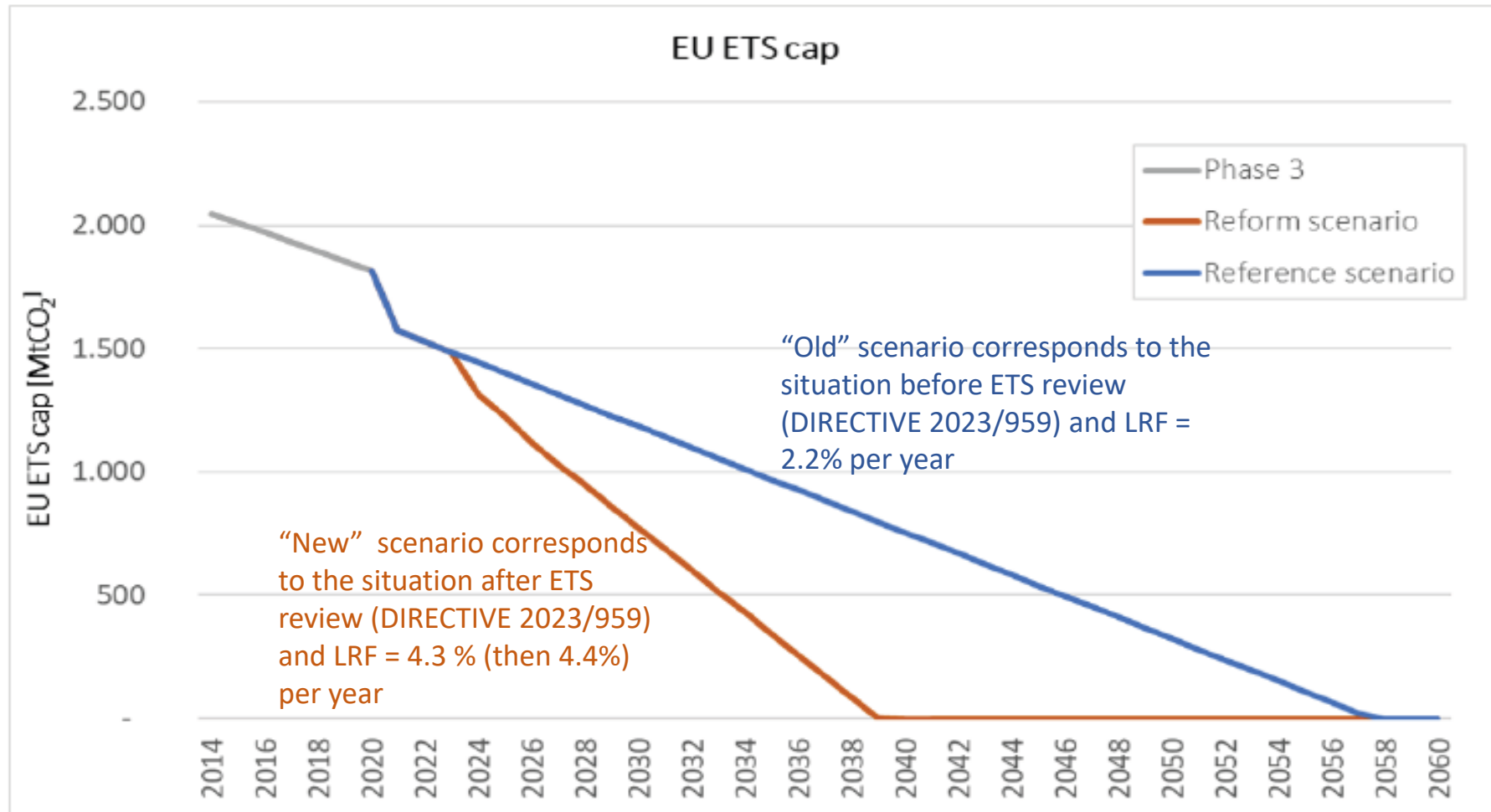
- Revised ETS directive published in the Official Journal 16<sup>th</sup> May 2023
- Starting 2024: installations can lose up to 20% free allowances if:
  - They don't implement all measures from audits with Pay-Back Time <3 years
  - They belong to 20% worst installations in a product benchmark and don't prepare Climate Neutrality Plan before May 2024
- Because of increased administrative burden, the compliance cycle calendar from 2024 onwards has been modified:
  - Deadline for competent authorities to grant free allocation postponed from 28 February to 30 June
  - Deadline for operators to surrender allowances postponed from 30 April to 30 September

## A) The renewed ETS directive

- ETS installations to reduce GHG emissions by 62% between 2005 and 2030
- Linear Reduction Factor increased from -2.2% per year to -4.4% per year → no CO<sub>2</sub> allowances put on the market after 2039 (à fortiori, no free allowances)



# The new ETS directive - the problem at a glance



Source: *The Emerging Endgame: The EU ETS on the Road Towards Climate Neutrality*, Michael Pahle, Claudia Günther, Sebastian Osorio, Simon Quemin, February 2023

Figure 1: Cap in Reform scenario (adjusted to sectoral scope of LIMES-EU)

In 2039 (16 years from now), the CO<sub>2</sub> cap under the EU's emissions trading scheme goes down to zero ! There will be no new supply of allowances to the market after this date.

# How can you still comply after 2039?

- 1) Don't emit CO2 any longer (*if you can*)
- 2) Bank your allowances (*if you can*):
  - 1) Article 13 :Validity of allowances
    - 1) Allowances issued from 1 January 2013 onwards shall be valid indefinitely. Allowances issued from 1 January 2021 onwards shall include an indication showing in which ten-year period beginning from 1 January 2021 they were issued, and be valid for emissions from the first year of that period onwards.
- 3) Buy from other ETS installations / market players who banked (*at what price?*)
- 4) Modify existing legislation to change the game, but politically difficult today (will it change in the future?)

## B) The new CBAM regulation

- CBAM (Carbon Border Adjustment Mechanisms) Regulation published in the Official Journal 16<sup>th</sup> May 2023
- Imports to the EU will be taxed according to their CO2 content (direct + indirect for some sectors)
- Sectors covered from the start: Cement, Fertilisers, Steel, Aluminium, Electricity, Hydrogen, certain precursors and downstream products
- Transitional period from 1st October 2023 until 31 December 2025 then “real” start
- No free allocation to CBAM sectors after 2034
- CBAM certificate price: Aligned on ETS price (averages calculated on a weekly basis)
- Glass not in from the start but likely to be added < 2030

## B) The new CBAM regulation

- No solution for exports (EU production to bear full carbon costs)
- Impact on value chain likely (e.g. cheaper to import a complex downstream product not covered by CBAM rather than to build it in the EU)
- CBAM exemptions to certain countries?
- Uncertainty on the reliability of declarations and effective controls
- Risks of opportunistic trade flows:
  - Resource shuffling through allocating low carbon production only to the EU with no or negative effect on the overall CO2 emissions
  - Transshipment strategies via exempted countries
  - Avoidance based on slight modification of the product
  - Cost absorption

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Category of potentials	Technology	TRL	CO <sub>2</sub> reduction <sup>13</sup>
CCS/CCU	Carbon capture	4	Max 90%
Fuel switch to carbon-neutral energy	Carbon neutral gas	8	75 to 85%
	Electric melting	9 (small furnaces) 5 (large furnaces <sup>14</sup> and specific glass type) 3 (continuous filament glass fibers)	75 to 85%
	Liquid biofuel	8	75 to 85%
	Hydrogen 20% in gas pipe	7	15 to 17%
	Hydrogen 100%	5	75 to 85%
Circular economy	Increased use of recycled glass (container)	9	Max 20%
	Increased use of recycled glass (flat)	9	Max 5%
Process	Batch pelletisation	6 to 8 <sup>15</sup>	Max 5%
	Raw materials pre-heating	8	Max 15%
	Glass batch reformulation	4	Max 20%
Process	Waste heat recovery	9	Max 15%

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# Conclusions

- GAE is relying on its members to cope with the different issues affecting the EU glass industry: **be involved !**
- Recent developments under the ETS:
  - **no new allowances will be brought to the market after 2039**
  - ETS installations can lose up to 20% of their free allocation in some cases
- Glass could be added to the new CBAM before 2030
- **Under the current framework, our industry needs to rapidly decarbonise to be able to continue producing in the EU**



**Thank you !**