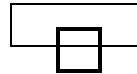




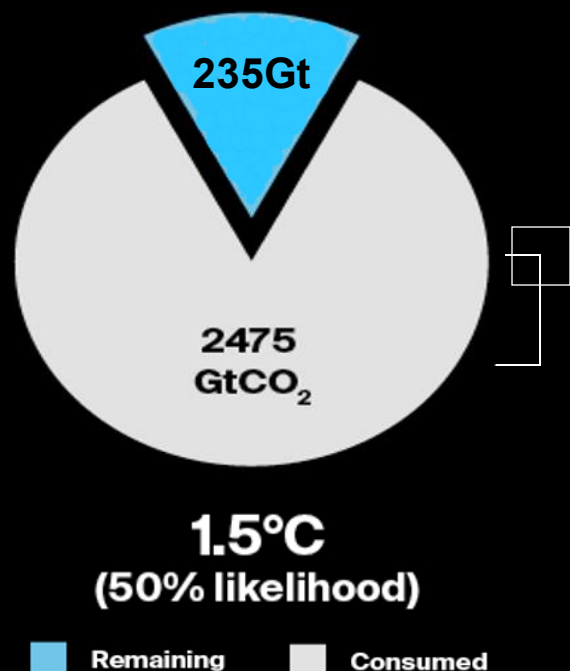
# Driving Decarbonization with ETS2

George von Waldburg, Director Environmental Markets, ICE (**Moderator**)

29 April 2025



# The remaining carbon budget to limit global warming from 2024



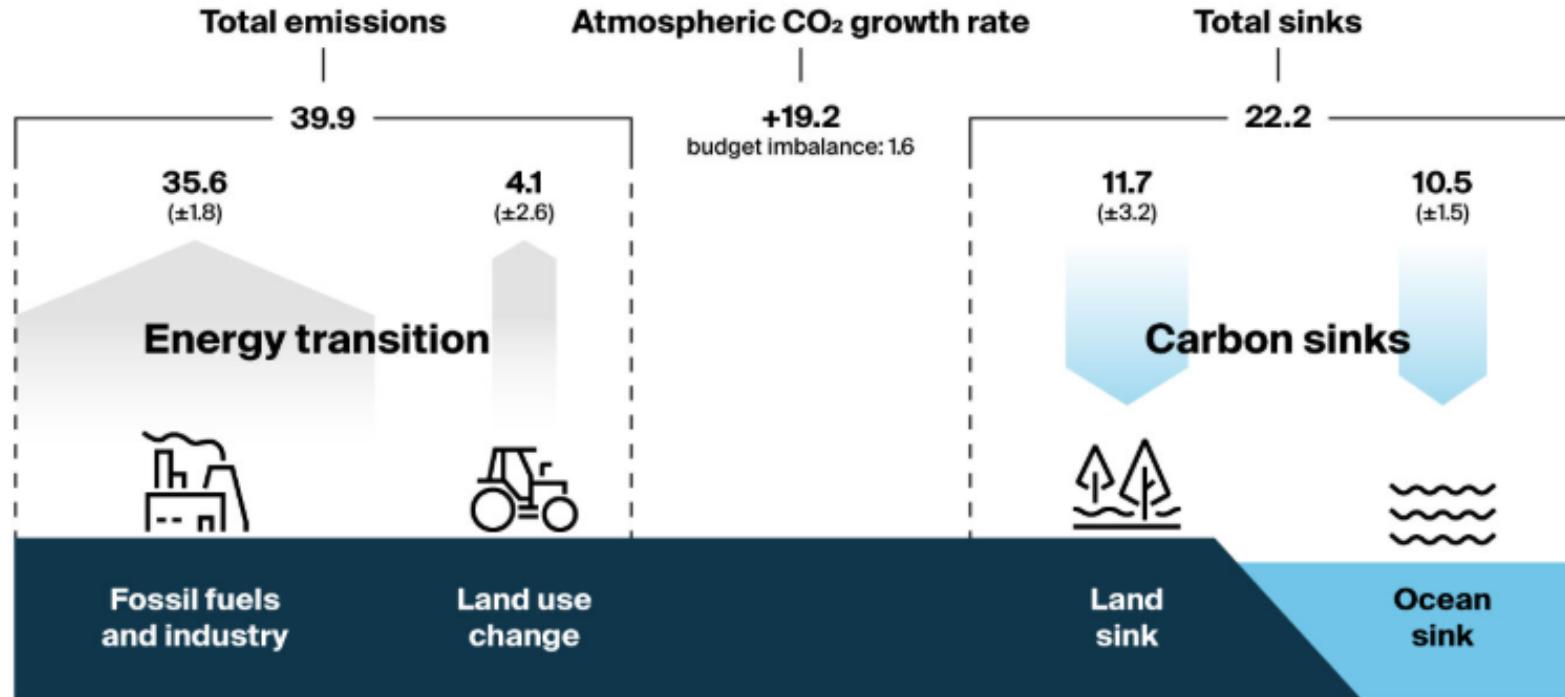
“Currently, you can pollute into the atmosphere for free. It does not take an advanced degree in economics to realize things that people can do for free, they do an awful lot of.”

Michael Greenstone  
Milton Friedman Distinguished Service Professor  
in Economics, University of Chicago

# What is net zero?

## Global carbon budget | emissions and sinks

### Global carbon budget 2014 – 2023



#### Emissions and sinks

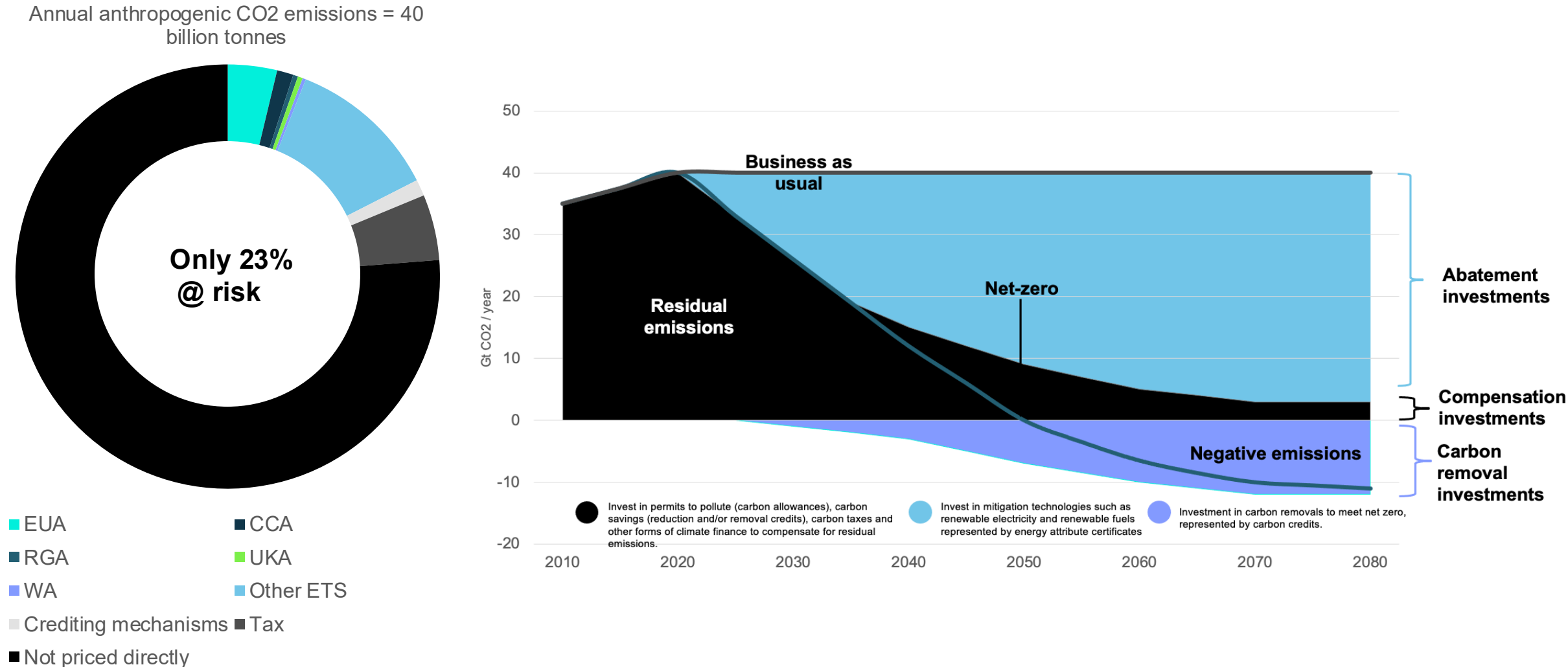
In billion-tons CO<sub>2</sub> per year (Pg CO<sub>2</sub> / yr), average 2014 – 2023

Anthropogenic emissions Sinks of anthropogenic emissions

Source: Global Carbon Project

# Carbon pricing and carbon tonnes at risk

## Annual emissions and net zero pathway



# ICE host to the world's largest energy & environmental markets



**>115 billion tonnes of allowances** equivalent to 3x world's annual CO<sub>2</sub> footprint



**>350 million RECs** equal to the annual per capita energy consumption of nearly million people



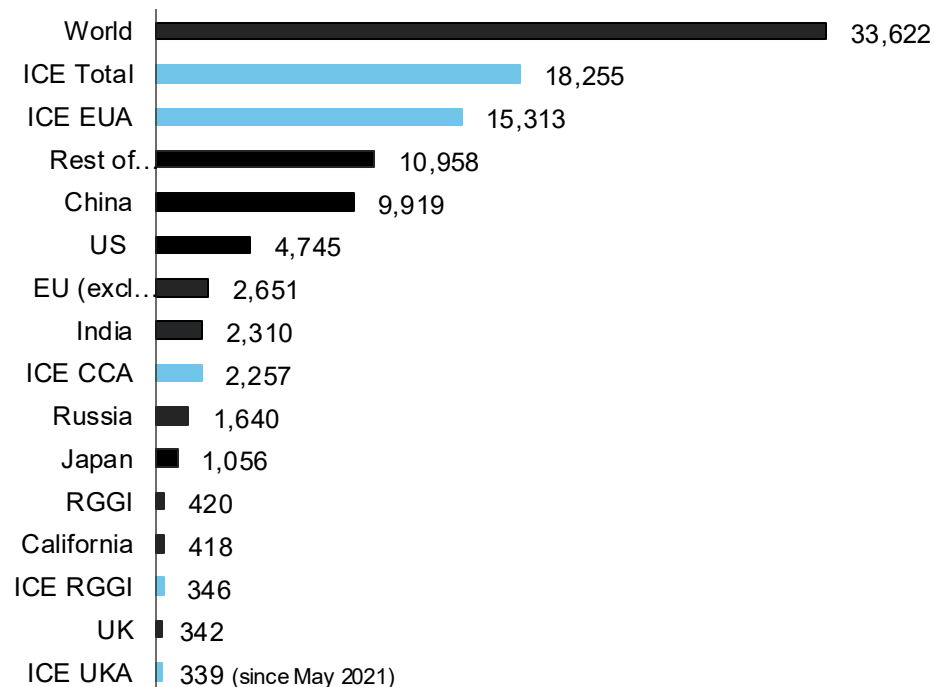
**>5 billion RINs** equal to 118 million barrels of renewable fuels



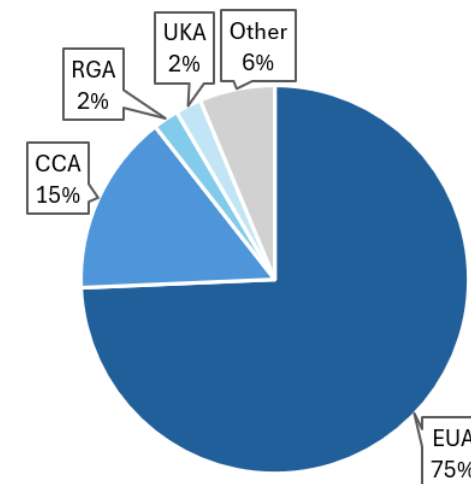
**>6 billion tonnes of carbon credits** corresponding to the Co2 absorption of 6 billion trees



**>50% of world's annual emissions footprint equivalent traded on ICE**



2019 emissions per country/region in MtCO<sub>2</sub> (sources: IEA, California ARB, RGGI)  
Emissions traded on ICE in 2021 in MtCO<sub>2</sub> (source: ICE)



**\$1T annual notional value** of environmental futures and options traded per annum since 2021



**\$75B open interest** of environmental futures and options risk managed at ICE

# ICE host to the world's largest energy & environmental markets

Connect to a global environmental portfolio to price climate risk

## Negative Externalities >

### Cap and Trade

EU Carbon Allowance (EUA)	>
UK Carbon Allowance (UKA)	>
California Carbon Allowance (CCA)	>
RGGI Carbon Allowance (RGA)	>
Washington State Carbon Allowances (WCA)	>
Global Carbon Index Future (CO2)	>

## Positive Externalities >

### Carbon Intensity

Alberta Emissions Performance Credits (AEPD)	>
Low Carbon Fuel Standard Credits (LCFS)	>

### Carbon Credits

Alberta Emissions Offsets Futures (AEO)	>
California Carbon Credits (CCO)	>
CORSIA Carbon Credits (CP1)	>
Nature Based Carbon Credits (NBT)	>

### Energy Attribute Certificates

Renewable Energy Credits (REC)	>
Renewable Identification Number (RIN)	>
Renewable Volume Obligation (RVO)	>

## Renewable Fuels >

### Biofuels

FAME	>
UCOME	>
RME	>
HVO	>
Ethanol	>
SAF	>



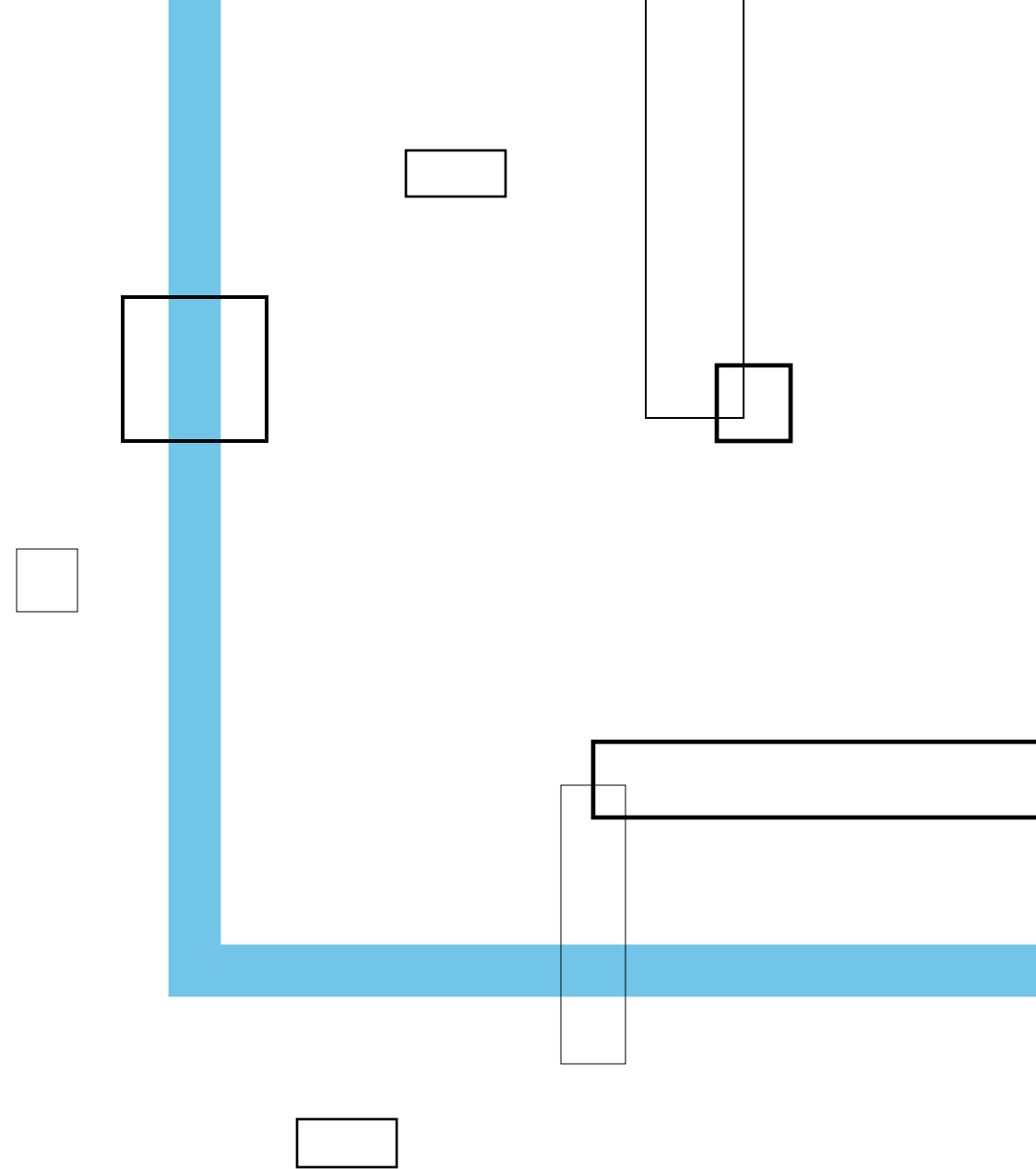
World's first Paris Agreement  
aligned carbon credit futures  
contract

CORSIA Phase 1 launched 9  
October 2023

# Today's speakers:

**Jennifer Mclsaac**, Chief Market Intelligence Officer,  
ClearBlue Markets

**Egis Breshani**, Manager EU Market Intelligence,  
ClearBlue Markets



# At what price level do you think ETS2 will trade on Day 1?

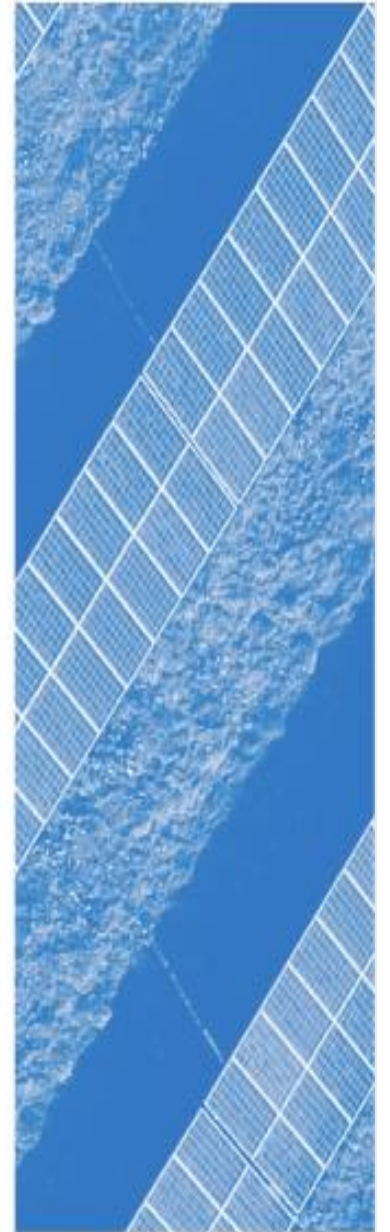
- a. < €55 (€45 adjusted for inflation)
- b. €55-65 (German National Scheme price corridor)
- c. Same price as ETS1
- d. > €65 (Cost of biogas upgrade €50-200/tonne)



# EU ETS2

## Expanding the Scope of EU Carbon Markets

**Jennifer Mclsaac** Chief Market Intelligence Officer  
**Egis Breshani** Manager EU Market Intelligence



# Market Intelligence

Market Intelligence subscriptions provide independent and transparent insights into supply, demand, and pricing trends, with customizable options to match clients' unique market coverage needs. All research is easily accessible via the ClearBlue Vantage carbon intelligence platform, ensuring both flexibility and convenience.



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## Supply & Demand Drivers

Long-term balances and price outlooks are available through comprehensive written reports, with concise summaries conveniently accessible via the Forecast tab on the Vantage platform. These insights reflect the latest policy changes and emissions developments, helping users stay ahead of market trends.



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## Market Insights

Market Intelligence data sets are available for download 24/7 through Vantage, ensuring you have access to critical insights whenever you need them:

- Carbon market pricing and technical analysis
- Market Indicators
- Media library
- Interactive dashboards



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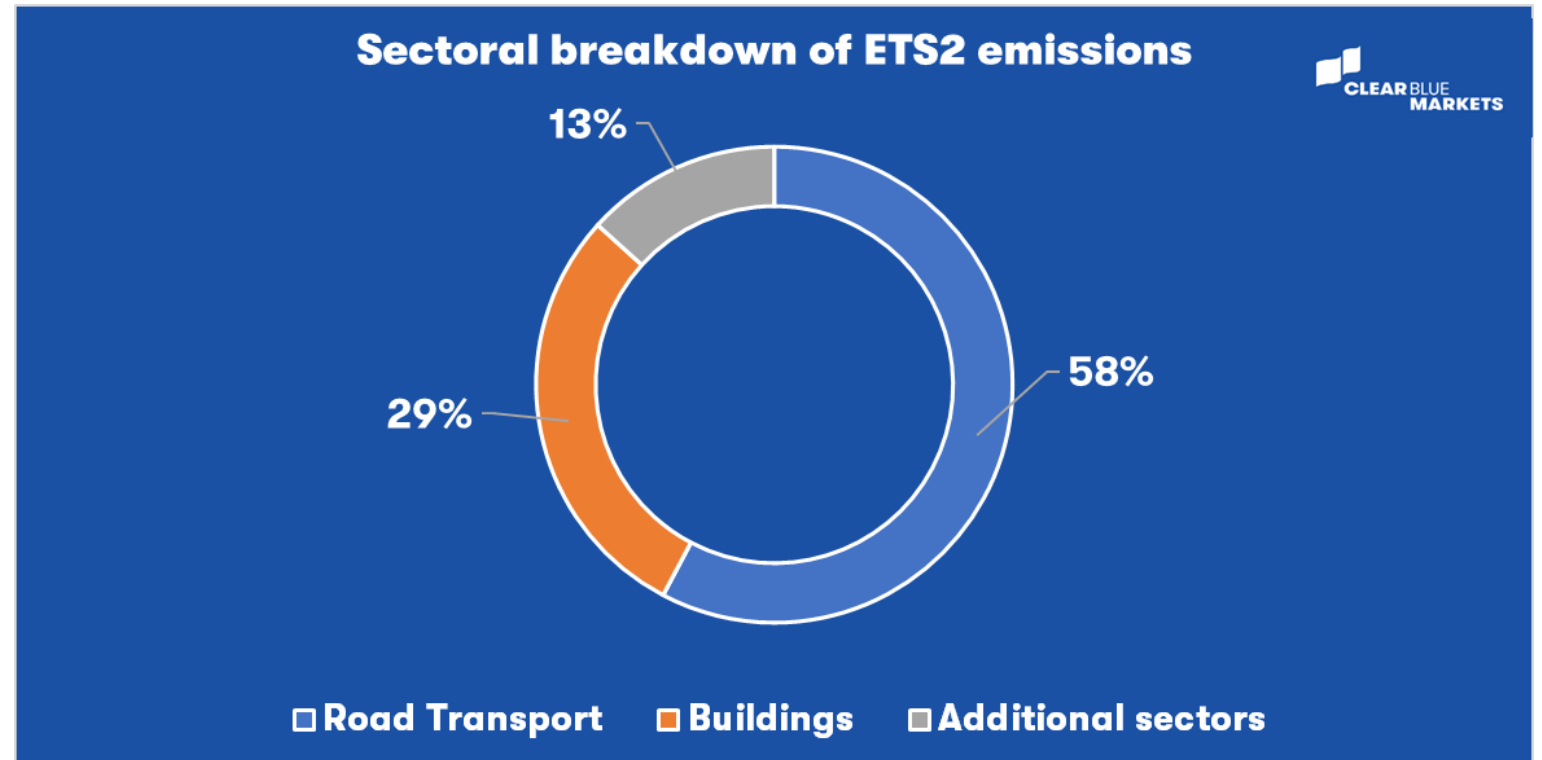
## Pricing Outlooks

ClearBlue offers near- and long-term pricing forecasts for carbon markets, covering a range of scenarios to support strategic decision-making.

# Point of regulation

## Scope & coverage

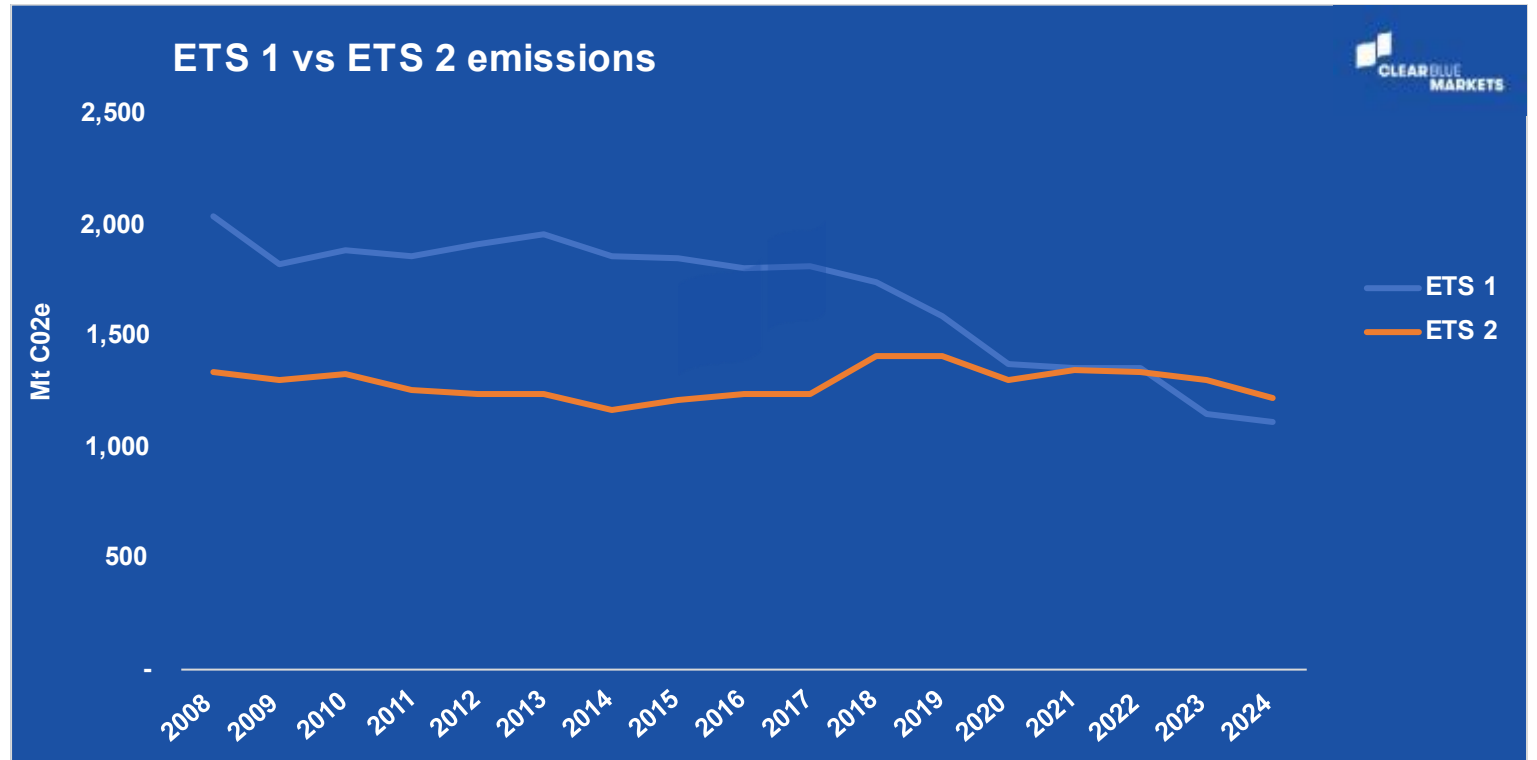
- EU ETS 2: Covers buildings, road transport, and small industrial fuel use
- EU ETS 2 encompasses approximately 7,000 tax warehouses for oil, 1,400 regional and local gas suppliers, and 3,000 coal suppliers
- The EU ETS 2 places the regulatory point “upstream,” targeting entities that release fuel for consumption rather than the end users
- All emission allowances will be auctioned
- There will be no free allocation of allowances in the EU ETS 2



# ETS2 in action

## Implementation

- EU ETS2 set to launch in 2027 after a three-year preparatory phase (reporting started in 2024)
- Possible postponement to 2028 if gas and oil prices remain high
- Fuel suppliers must monitor & report emissions
- From 2027, allowances must be purchased & surrendered based on fuel emissions
- The ETS2 cap will be set to bring emissions down by 42% by 2030 compared to 2005 levels



# Use of revenues

## SCF & fund distribution

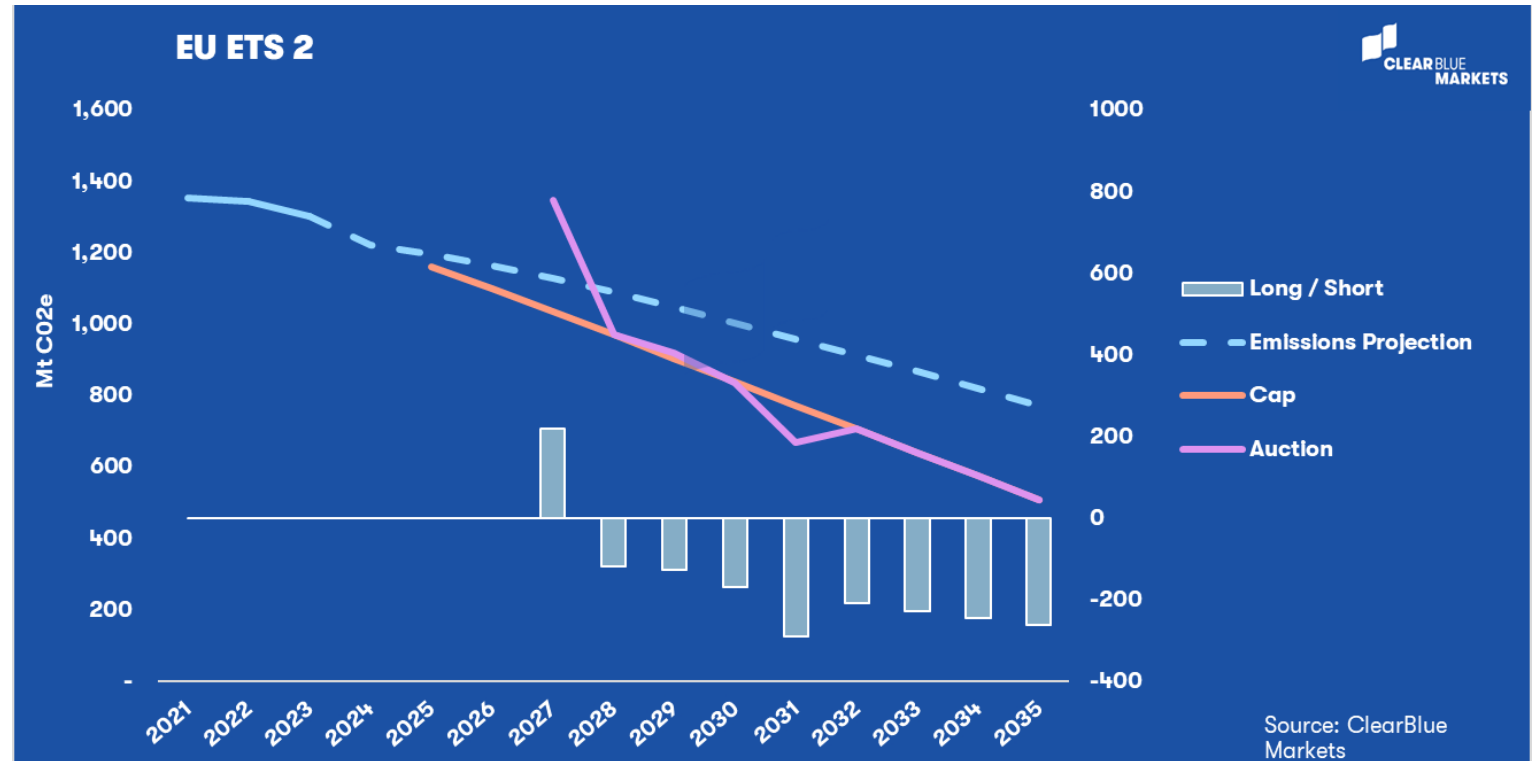
- Social Climate Fund (SCF): Start in 2026, funded initially by 50 million allowances from EU ETS 1
- EU ETS2 Revenue Allocation (2027-2032): Up to EUR 65 billion for SCF; reduced to EUR 54.6 billion if delayed
- Fund Distribution: Based on CO<sub>2</sub> emissions per household, poverty levels, and national income
- Remaining Revenues: Retained by Member States, allocated based on past emission levels (2016-2018)
- Hoekstra suggested expanding the Social Climate Fund if needed



# EU ETS2 model structure and balances

## Emission reduction pathway

- Extra 30% of allowances in 2027 will be auctioned but then will be reduced accordingly between 2029 and 2031
- The EU Commission has set a cap of 1,036,288,784 allowances for 2027
- The number of allowances each year from 2028 will decrease in a linear manner of 5.38%
- Total emissions could decline from 1,303 Mt in 2023 to 989 Mt by 2030, with a potential low-emission scenario reaching 860 Mt if stricter targets are met

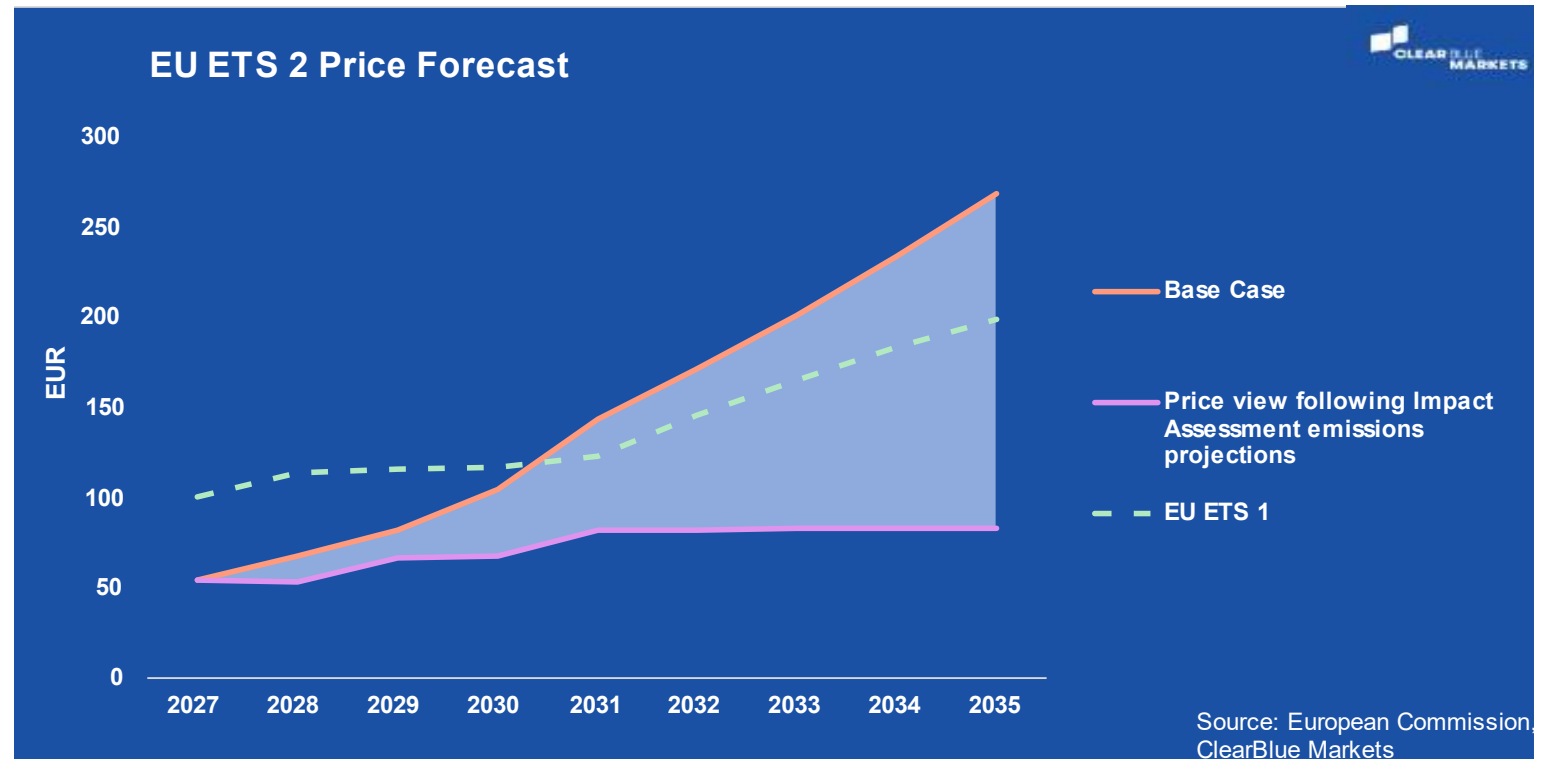


# MSR & prices

## EU Commission Impact Assessment lead to price projections between EUR 45 and EUR 80

- 100 million of allowances will be released when TNAC falls below 210 million (2028-2030)
- When ETS 2 price exceeds EUR 55\*\* (2027-2029), 20 million of allowances will be released
- By 2031, any allowances remaining in the MSR will be invalidated
- Base-case scenario predicts an initial oversupply in 2027, leading to an average price of EUR 55
- In our base-case scenario prices can reach EUR 99 by 2030
- In a lower-emission scenario, average prices are projected to reach EUR 68 by 2030

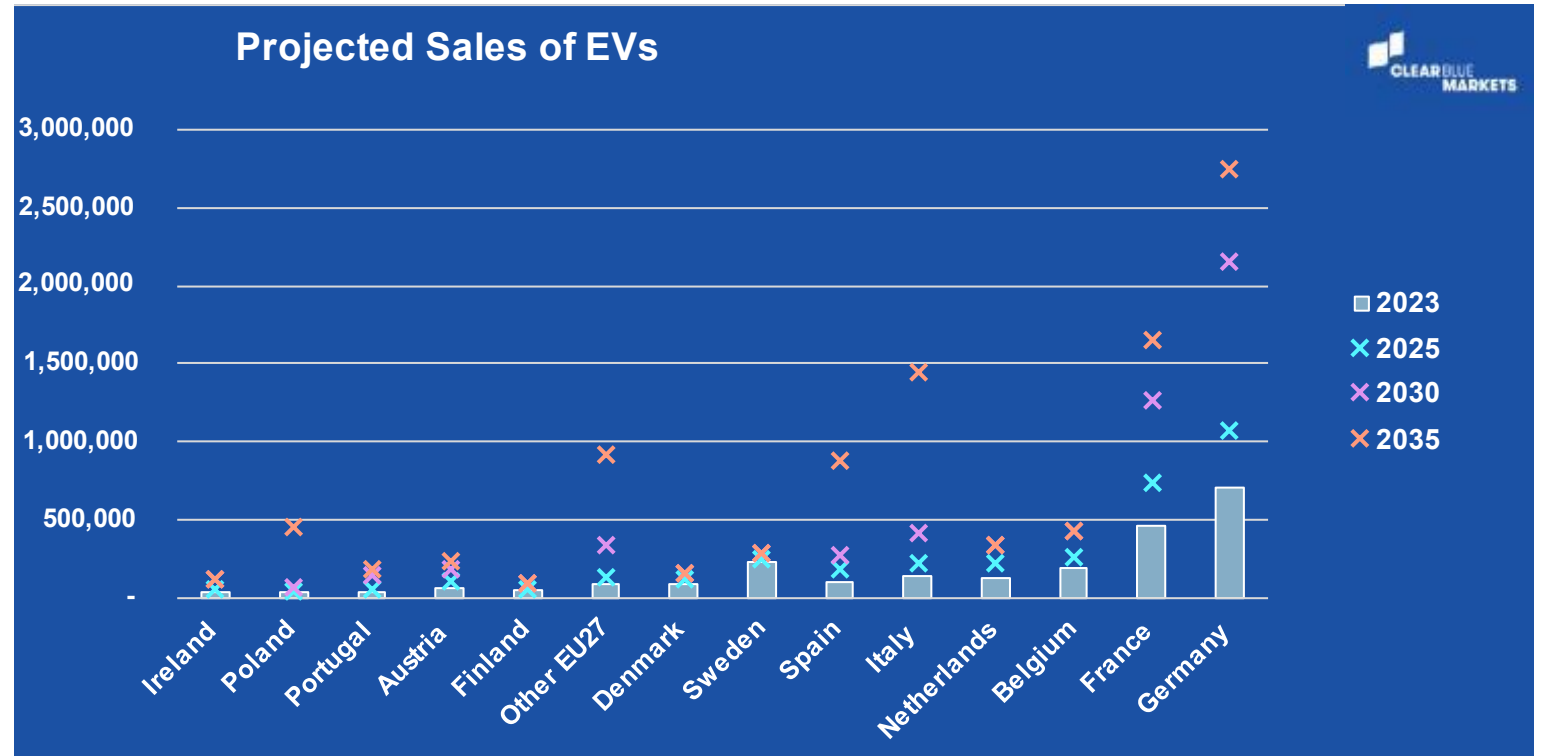
\*\*inflation adjusted



# Road transport decarbonization

## Impact of policies on EV adoption

- Challenges from biofuel competition
- Ban on ICE vehicles and market readiness
- Tariffs and trade barriers on EVs
- Incentives and market growth trends

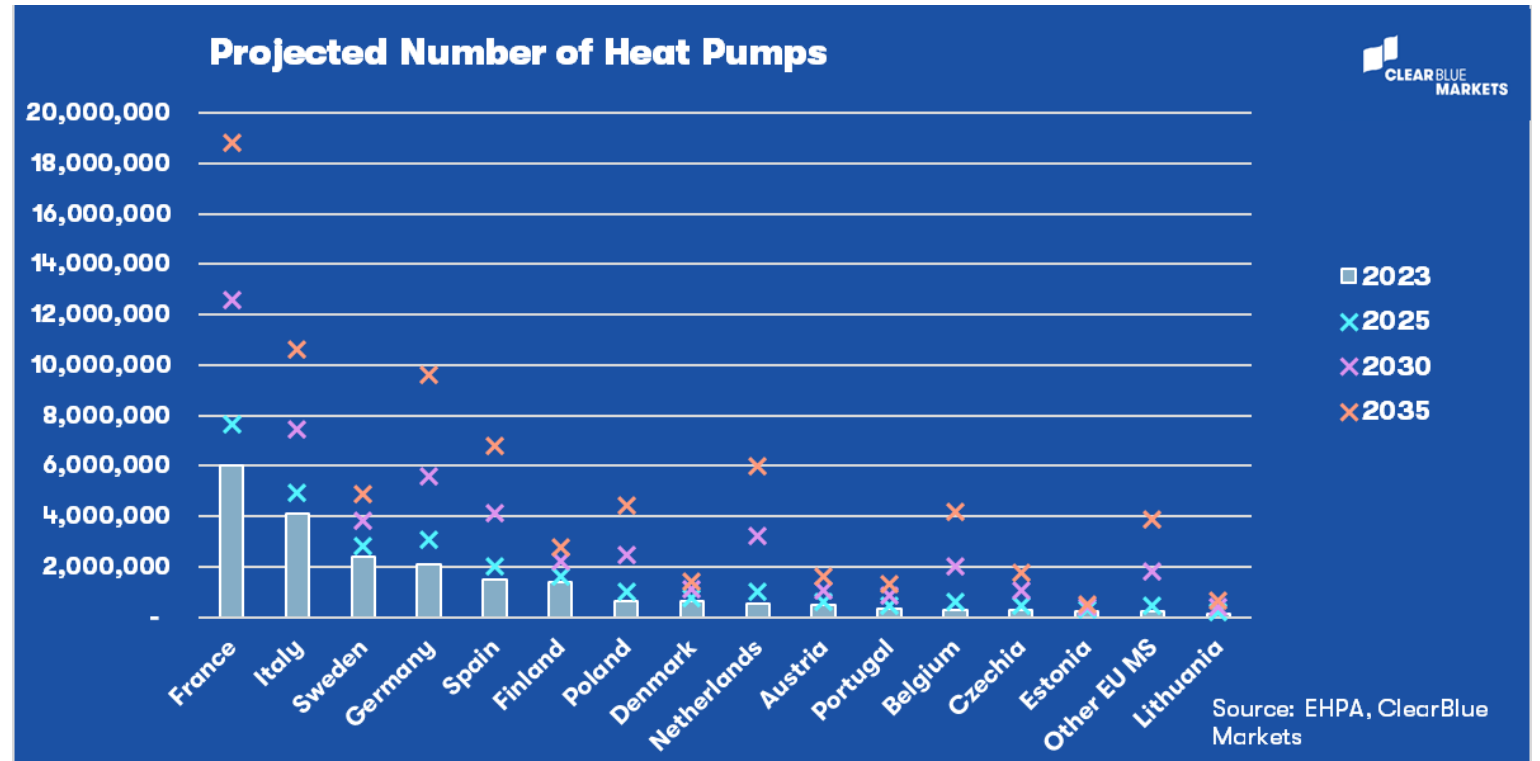




# Buildings decarbonization

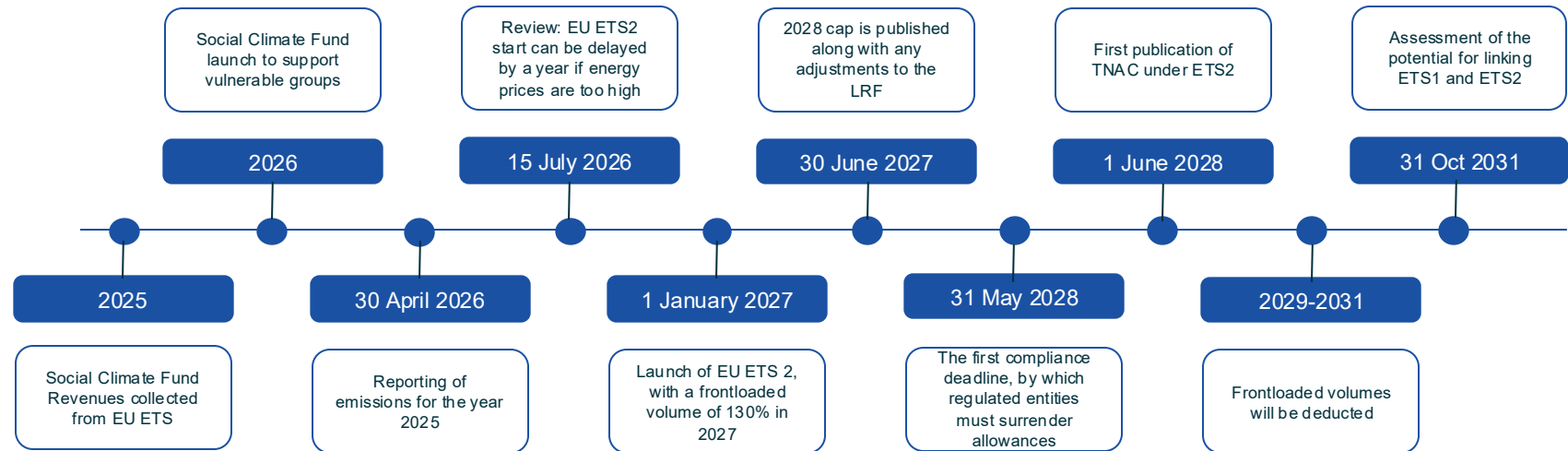
## Impact of policies on heat pump adoption

- Market challenges from Imports and Manufacturing
- Subsidy changes and incentives
- Regulatory and political uncertainty
- Long-term growth outlook



# Timeline: Key events to watch

- Germany has postponed the April 2024 emissions reporting deadline for companies due to delays in national legislation
- For the EU ETS 2 to be delayed by a year, Brent oil must average twice its 2021–2025 price from January to June 2026, which, based on data up to April 2025, means exceeding USD 144/bbl
- EU ETS 2 can be also delayed if the average Dutch TTF gas price from January to June 2026 exceeds the February–March 2022 average of approximately EUR 108/MWh



# Market and strategies

ICE will launch EU ETS2 futures contracts on 6 May 2025

PCC	Contract Name	Market Type Name	Clearing Bucket	Expiries
EC2	EUA 2 Futures	EU Emissions Allowances	EUA 2 NDEX	Dec28, Apr29, Dec29, Apr30, Dec30

Who will purchase EU ETS2 allowances?

- The EU ETS2 places the regulatory point “upstream,” targeting entities that release fuel for consumption rather than the end users.
- ETS2 includes a large number of smaller emitters
- 7,000 tax warehouses for oil, 1,400 regional and local gas suppliers, 3,000 coal suppliers
- Pass over cost up to 100%
- Example: CHP which are often direct customers of fuel suppliers, typically engage in forward hedging strategies spanning 1-3 years, small shipping clients remain spot oriented



# Questions?

