ERCST
European Roundtable on Climate Change and Sustainable Transition

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State of the EU ETS Report 2020

March 11 – Brussels Brainstorm

State of the EU ETS 2020– Outline

- **Seven Chapters**

1. Introduction – EU ETS fit for purpose
2. Changes in regulatory environment
3. Environmental delivery
4. Economic delivery
5. Market functioning
6. The European Green deal
7. Issues to monitor in the future

State of the EU ETS 2020– Outline

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EU ETS 'fit for purpose'

What do we expect the EU ETS to deliver?

3 key deliveries

1. **Environmental delivery.** Does it deliver against absolute environmental targets?
2. **Economic delivery.** Macro-economic efficiency and cost effectiveness for compliance. Does it provide effective, and proportional, protection against the risk of carbon leakage? Is it a driver for change?
3. **Market functioning.** It is worth having a market only if it functions well and leads to good price discovery.

EU ETS 'fit for purpose'

What do we expect the EU ETS to deliver?

2 additional, implicit deliveries:

1. A long-term (competitive) advantage for Europe?

- *Generate sufficient investments to accelerate the transition.*
- *Create the premises for a low-carbon product market.*
- *Anticipate and address social impacts.*
- *Incentivise behavioural and system change.*

--> Has become more explicit with the European Green Deal:

- "new growth strategy" to transform the EU into a fair and prosperous society
- "this upfront investment is also an opportunity to put Europe firmly on a new path of sustainable and inclusive growth"

2. A role for the EU ETS in being a pioneer and promoting carbon markets as a tool for addressing climate change

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     i. **Relevant evolution in policy and governance issues**
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1 – European Parliament elections

2019 : a popular *green* movement sweep through Europe

- EU elections saw the number of green MEPs rise substantively, and one could argue that the parliament as a whole has 'moved' towards a greener stance
- **The European Green Deal**: communication issued on December 11th, 2019 is presented as a *new growth strategy* by the Commission, aimed at transforming the EU's economy towards net zero emissions.

2020 : a *test year* for the green deal with the quest of a strong support of Member States

- As a first pillar, the **Climate law** has been presented by the EU Commission on 4th March;
- Climate neutrality will be on the agenda of various ministerial meetings, including an informal gathering of environment ministers in Croatia in April.
- Achieving an agreement on a final version of the Climate law will then pave the way for the EC to **propose changes to more specific laws such as the EU ETS Directive**.

2 – Brexit – three years of negotiations

2019 : the certainty of an unclear impact on the EU ETS

- EU Withdrawal Agreement passed – transition period until the end of 2020 = together with the end of Phase 3 ETS
- EC Contingency Action plan: Free allocation and auctioning of EUAs by the UK was suspended

2020 : the clarification of a transition period.

- There is now a transition period until the end of 2020 while the UK and EU negotiate additional arrangements. New rules will take effect on 1st January 2021.
- **The EU ETS will continue for the 2019 and 2020 compliance years during the transition period** from 1st February 2020 to 1st January 2021. UK remains a full participant in the EU ETS and compliance obligations apply for 2019 and 2020 emissions.
- UK operators will continue to be able to access their accounts in the Union Registry.

2 – Brexit – the transition period

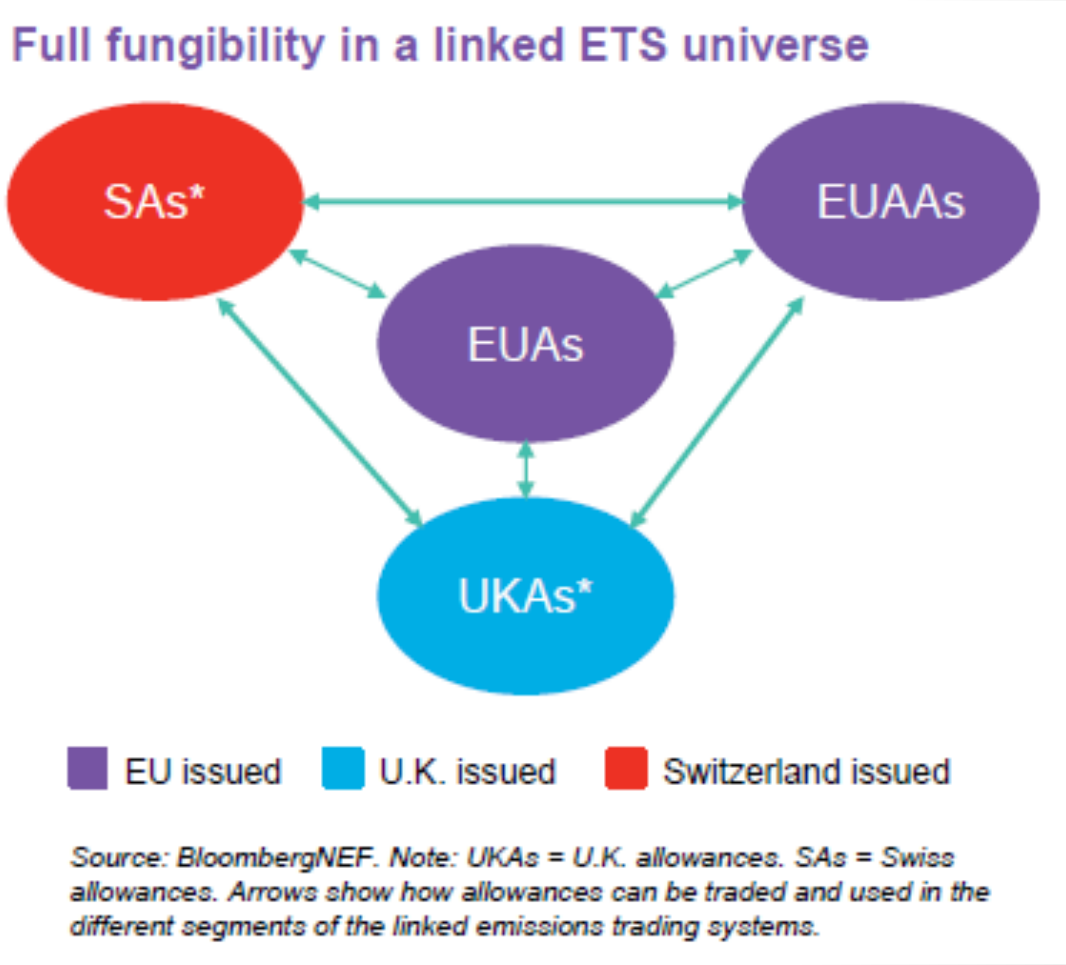
2020 : The operational agenda for UK operators compliance during the transition period

- The deadlines for UK operators during the transition period are:
  - submit Verified Annual Emissions Report for 2019/2020 emissions - 31 March 2020/2021
  - surrender equivalent allowances to 2019/2020 verified emissions - 30 April 2020/2021
- **Auction calendar for the UK** :
  1. 123,4 Mt of general allowances will be auctioned over 2020. The first auction took place on 04 March.
  2. 1,64 Mt of aviation allowances will be auctioned over 2020. The first aviation auction to be on 25 March.
- UK operators will also regain the ability to use their entitlement in the Union Registry to exchange **international credits** for EU ETS allowances.

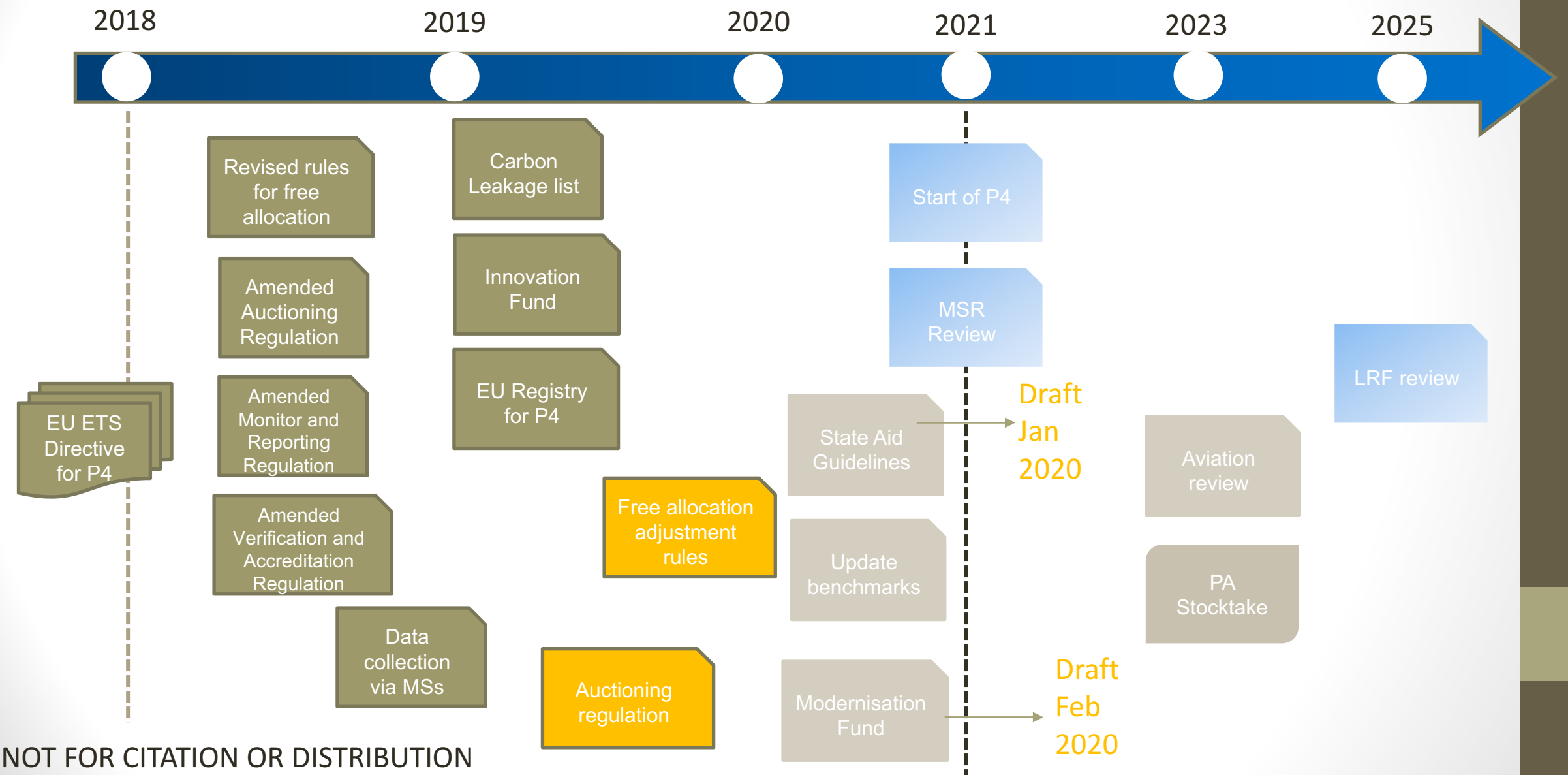
2 – Brexit – towards a linked UK-ETS ?

2020 : a year to design a future UK carbon pricing scheme

- **Four options were on the table**: a carbon tax, stand-alone U.K. emission-trading scheme, U.K. scheme linked to the EU ETS; and staying in the EU ETS least through Phase 4 (2021-30).
- **But the UK government prefers a linked UK-ETS** and intends to implement a UK ETS like the EU ETS to link them from 2021.
  - **The EU likely prefers this UK-ETS option** as it would not have a disruptive effect on the EU ETS;



3 – Evolution of the secondary legislation related to the EU ETS



3 – Evolution of the secondary legislation related to the EU ETS

2019 main developments

- The revision of the **Free Allocation adjustment** rules for 2021-2030 was adopted, aiming to create a closer link between changes in production levels and free allocation compared with Phase 3
- **Auctioning regulation amended**
  - Monetization of allowances for the Innovation Fund and Modernisation Fund
  - Template for voluntary cancellation
  - Alignment with the financial market legislation and market oversight regime (MiFID2)
- Decisions made by the 10 CEE Member States regarding the use of Article 10c and the **Modernisation Fund**:
  - The use of Article 10c, transitional free allocation, will decrease substantially compared to P3
- **Draft state aid guidelines** for indirect costs compensation published

3 – Evolution of the secondary legislation related to the EU ETS

EU ETS issues to monitor in 2020

- The benchmark values for free allocation for 2021-2025
- Draft state aid guidelines for indirect costs compensation
- The modernization fund
- The innovation fund

The two game changers on the EU ambition to monitor in 2020 will be :

- The **Green Deal** : the EC plans to set ambitious target in summer/autumn 2020
- The **Paris agreement** : it pushes the EU to raise its climate ambition before the global stock take in 2023.

Beyond 2020, several policy milestones are already scheduled :

- MSR and LRF reviews, CORSIA.

4 – National Energy and Climate Plans (NECPs) and changes in MS ambition

- **Regulation on the Governance of the Energy Union requires MS to submit NECPs for the period 2021-2030 :** in March 2020, 21 MS have submitted their final NECPs
- **EU countries were also required to develop national long-term strategies by 1st January 2020:** in March 2020, 11 MS have submitted their national long-term strategies
- **Potential impact on EU ETS for those MS who might take additional actions in sectors covered by the EU ETS - highly dependent on how the EU ETS will be reviewed**
  - Coal phase –out policies will have an impact on the EU ETS by cutting the EUA demand: Germany
  - But consequences on EUA demand and then on EUA prices are unclear because actions plans and what are the offset parts are not always specified to quantify the impact on the EU ETS.
- **More Member States are announcing more ambitious national**

5 – MSR implementation

2019 : the first year of operation

- 2019 was the first year of operation of the MSR
- 24% of the TNAC placed in the MSR = In total, 397m allowances.

2020 and beyond

- **2020: unclear number of allowances placed in the MSR,** additional EUA from the UK share from 2019 auctions in 2020.
- This is an important piece of the EU ETS : **need to have an efficient review**. The review in 2021 should look at both the track-record of the MSR until 2021, as well it expected performance in the period to 2030.

Indicators to monitor towards the review

Goal 1 – Eliminate the historical structural imbalance	Goal 2 – Bring the TNAC within range of the MSR thresholds in case of new events	Goal 3 – Monitor the impact of the MSR on competitiveness
Indicators for Goal 1: a. TNAC for 2019-2020 b. Estimated TNAC for Phase 3 compared to TNAC for 2019-2020 c. Estimated number of allowances invalidated in 2023 compared with the difference between the 2018 TNAC and the MSR upper threshold	Indicators for Goal 2: a.1. Yrs. to absorb variation caused by RES/EE achievements of MS in 2020 vs. 2020 targets a.2. Yrs. to absorb variation caused by RES/EE targets towards 2030 b.1. Yrs. to absorb variation caused by overlapping MS policies (e.g. coal phase outs) in the period 2019-2020 b.2. Yrs. to absorb variation caused by overlapping MS policies (e.g. coal phase outs) for the period to 2030 c.1. Yrs. to absorb variation caused by changes in economic growth in the period 2019-2020 c.2. Yrs. to absorb variation caused by changes in economic growth towards 2030 d. Cumulative impact of all the previous indicators for Goal 2, to be estimated through a comparison of different modelling scenarios indicating the long-term trend of the TNAC towards 2030 e. Alignment of hedging strategies to MSR thresholds	Indicators for Goal 3: a. Carbon leakage impact of EUA price (both direct and indirect costs) b. Change in auction revenues for MS caused by the MSR c. Implications of the MSR on the innovation and modernisation funds

Source : ERCST, 2019

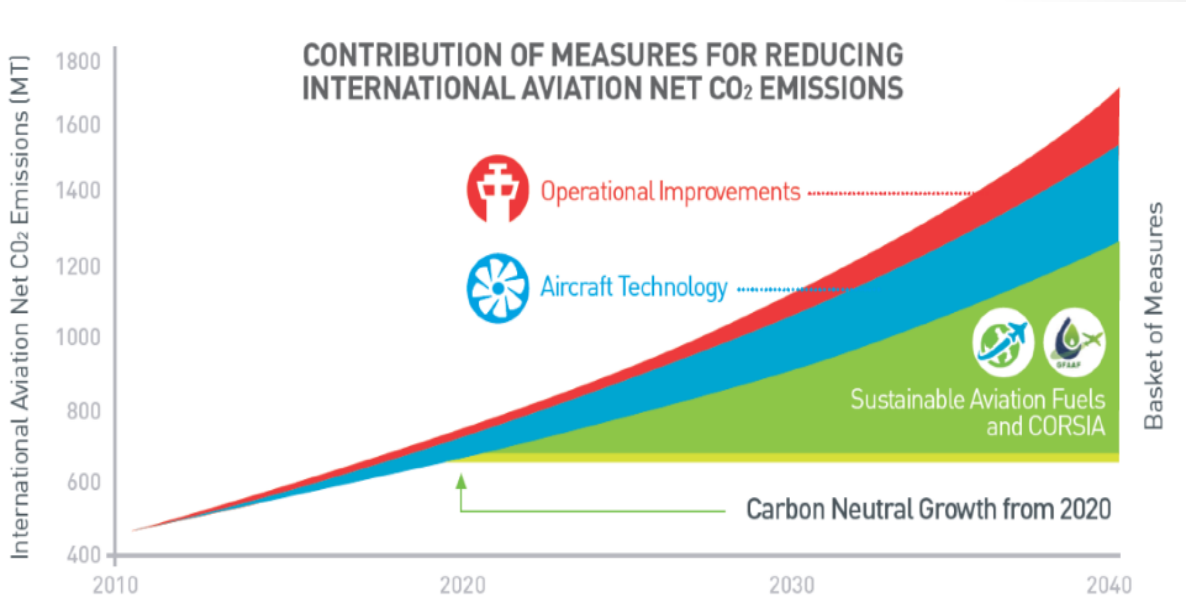
6 – CORSIA – The potential international market-based aviation scheme impact on the EU ETS

The EU ETS for aviation will be subject to a new review in the light of the development of CORSIA.

- **CORSIA is a market-based measure**, requiring the civil aviation to offset operator's annual emissions that are above the 2020 baseline for international flights.
- It will be implemented in three phases : Pilot phase 2021-2023, First Phase 2024-2026 and Second phase (2027-2035).

2019

- In **2019, operators monitor, report and verify their emissions** from international flights.
- In the Green deal, the EU Commission has announced the intention to reduce the amount of free allowances for aviation over time.



Source : ICAO, 2016

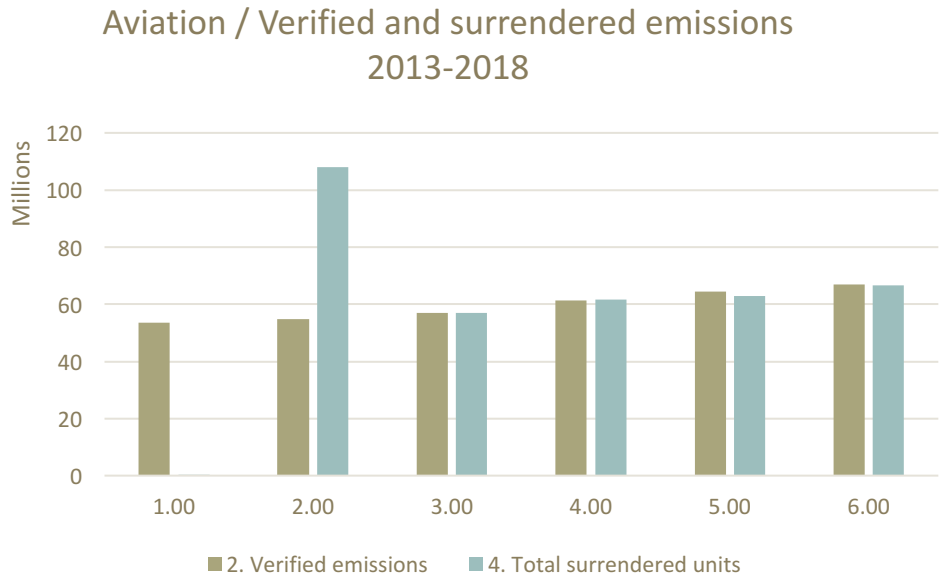
2020

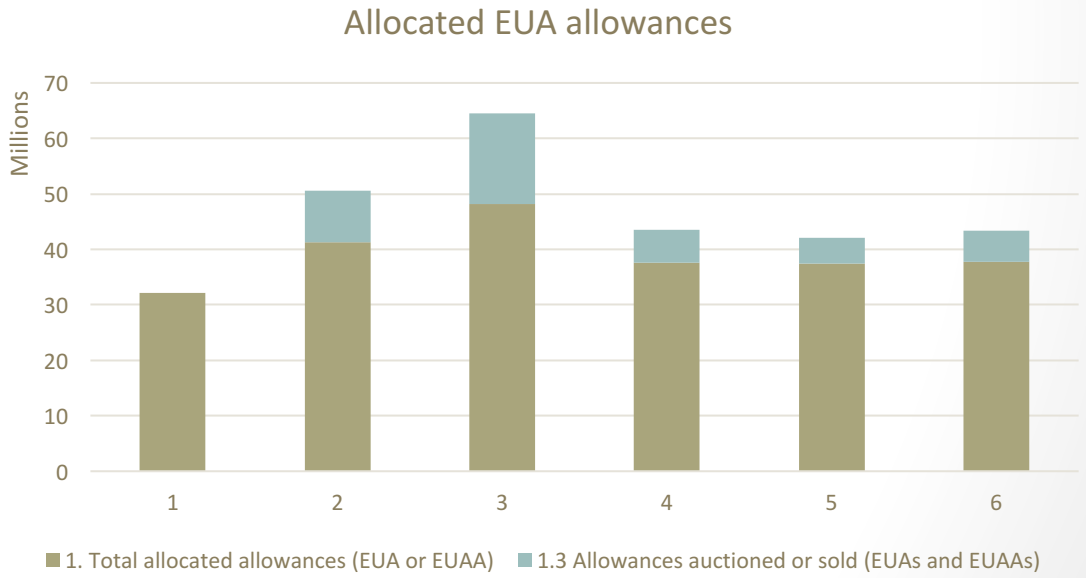
- **CORSIA's offsets rules** will be decided by the ICAO Council in March 2020 :
- The **EU Commission is preparing a report** on how the two schemes could function together and whether the CORSIA ambition is in line with the EU ambition.

6 – CORSIA – Aviation key figures in the EU ETS

On the 2013-2018 period :

- Verified emissions from airlines **grew by 20,17% from 2013 to 2018**
- The aviation sector has **a surplus of 148 millions**
- Aviation represents 3,33% of the total ETS surrendered units
- 14,6% of its EUAA allowances came from auctions





Source : EEA EU ETS data, 2019

7– Article 6 of the Paris Agreement

Main developments in 2019 : COP25 negotiations failure

- Article 6 rulebook was one of the main output long awaited on which negotiators failed to agree during COP 25. The Article 6 is not operational .
- Article 6 in its most environmentally sound version has been pushed by EU parties (eg. San José principles at the end of the COP backed by EU countries)
- However it is always unclear how it will affect the EU ETS

2020 : A driver to increase the level of ambition of the EU and other Parties?

- COP 26 output in Glasgow (Scotland with post Brexit political background…)
- This might be a source of soft power that combined with the carbon boarder tax bargain chip could lead the EU partners to develop EU-linked ETS.
- COP 26 outcome will also be interesting to analyse in order to know what will be the impacts for linking EU ETS with other ETS (Swiss, New Zealand).

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‘Sentiment’ Market Survey

- Short survey, 6 statements on EU ETS, its functioning and outlook
- Sent out to 200 selected stakeholders and experts working on the EU ETS
  1. EU Member States
  2. NGO, Industry and business representatives
  3. Analysts and researchers
  4. …
- Comparison with 2019 results

‘Sentiment’ Market Survey

Survey Questions 2020

- **In its current architecture, including the revision for Phase 4**

1. The EU ETS governance will provide a stable and predictable framework for an investment signal.
2. The EU ETS Phase 4 parameters will lead to price patterns in 2020-2030 which are commensurate with an investment trajectory necessary towards net zero emissions by 2050.
3. The EU ETS will provide a first mover advantage for the EU business community.
4. The EU ETS will require significant changes to the MSR in the 2021 review.
5. The mechanisms in place in the EU ETS can address the impacts of MS policies that will overlap with the EU ETS.
6. The EU ETS can drive EU climate change policy post 2030.

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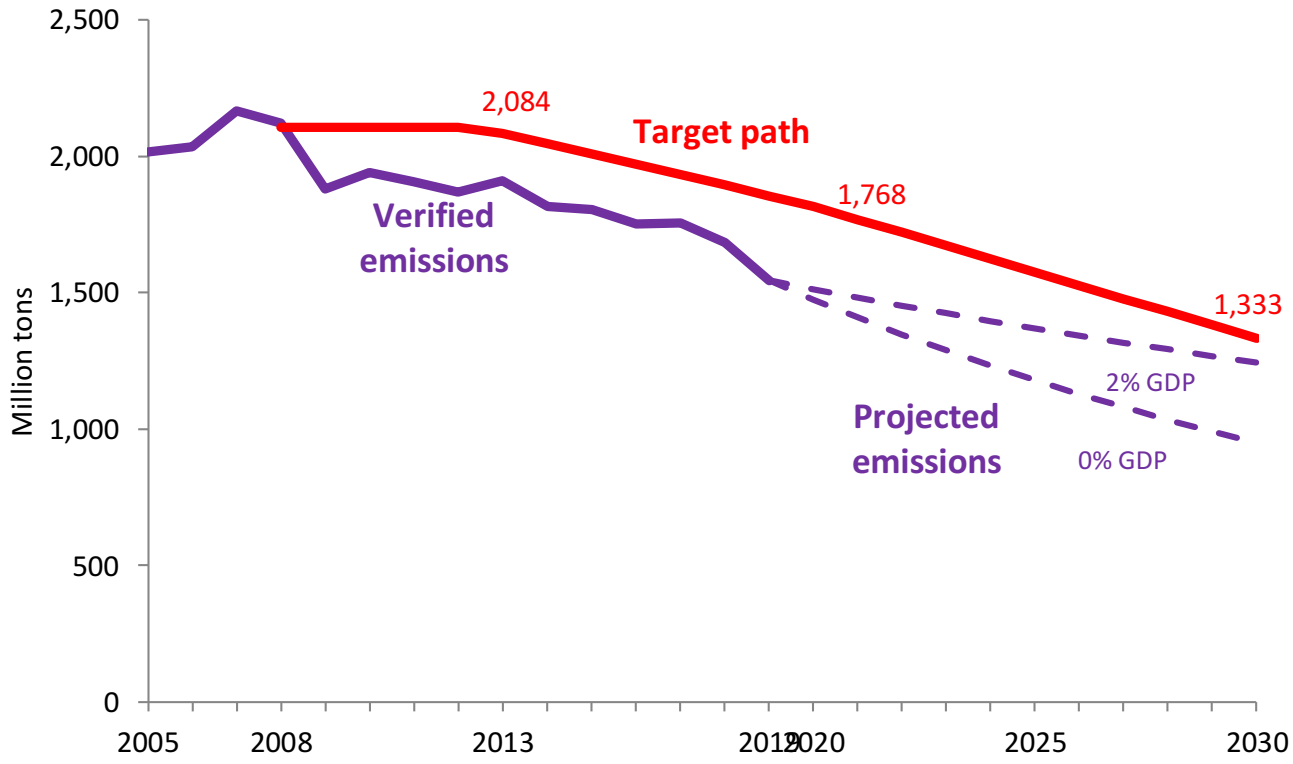
Environmental Delivery

1. Delivery against the trading period target
2. Emission and decarbonisation trends
3. Delivery against EU long term domestic climate objectives
4. Lessons learned and issues to understand better

Delivery against the trading period

Comparison of emissions against the target cap



Source: Wegener Center elaborations on EEA, 2020 and EU TL, 2020
** 2019 emissions are estimates from Sandbag & Agora*

2019 estimates

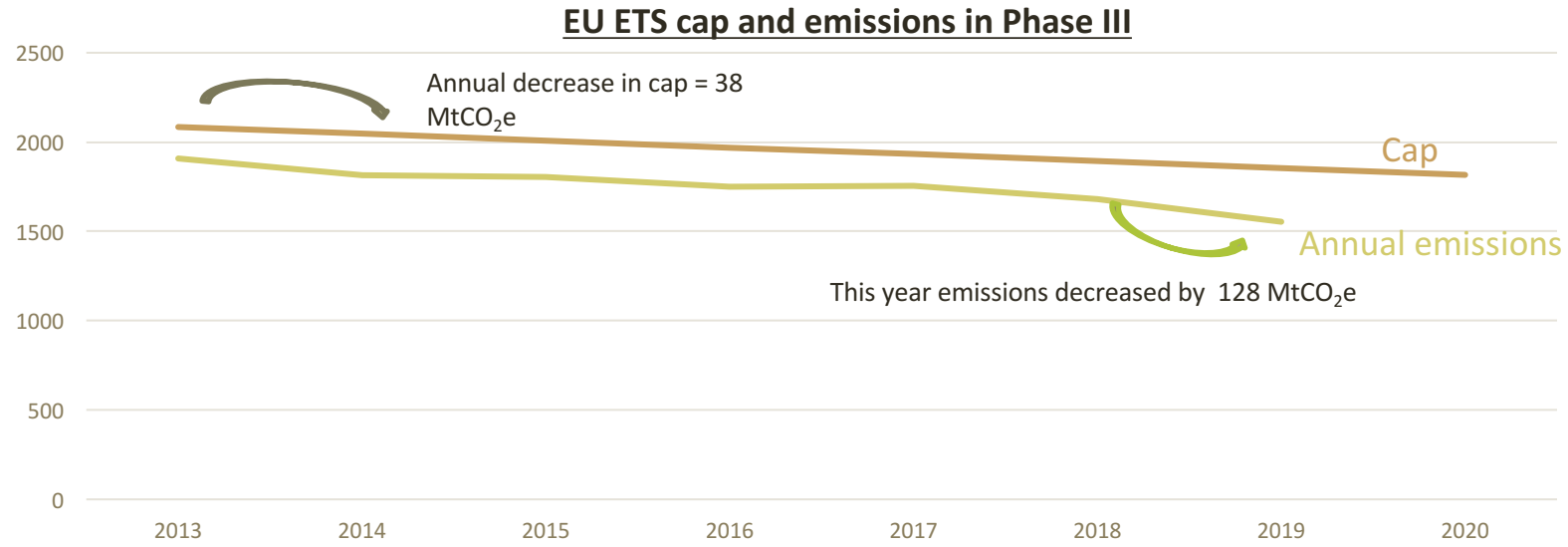
-7-8%	Total emissions
-12%	Power
-1%	Industry

Actual emissions were so far below the target path. Thus, the cap was not binding and there was no overall stringency in the system.

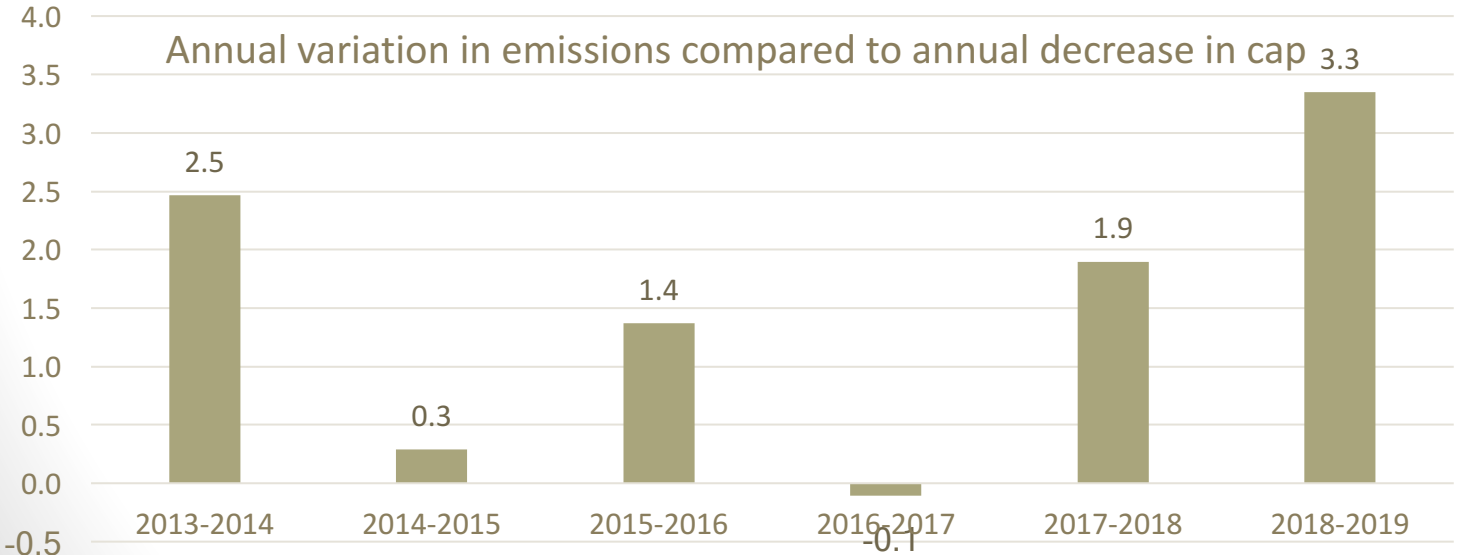
According to the currently observed dynamics, emissions will not hit the target path.

Delivery against the trading period

Comparison of the rate of decarbonisation with the decrease of the EU ETS cap



Verified emissions are 16.2% below the cap in 2019



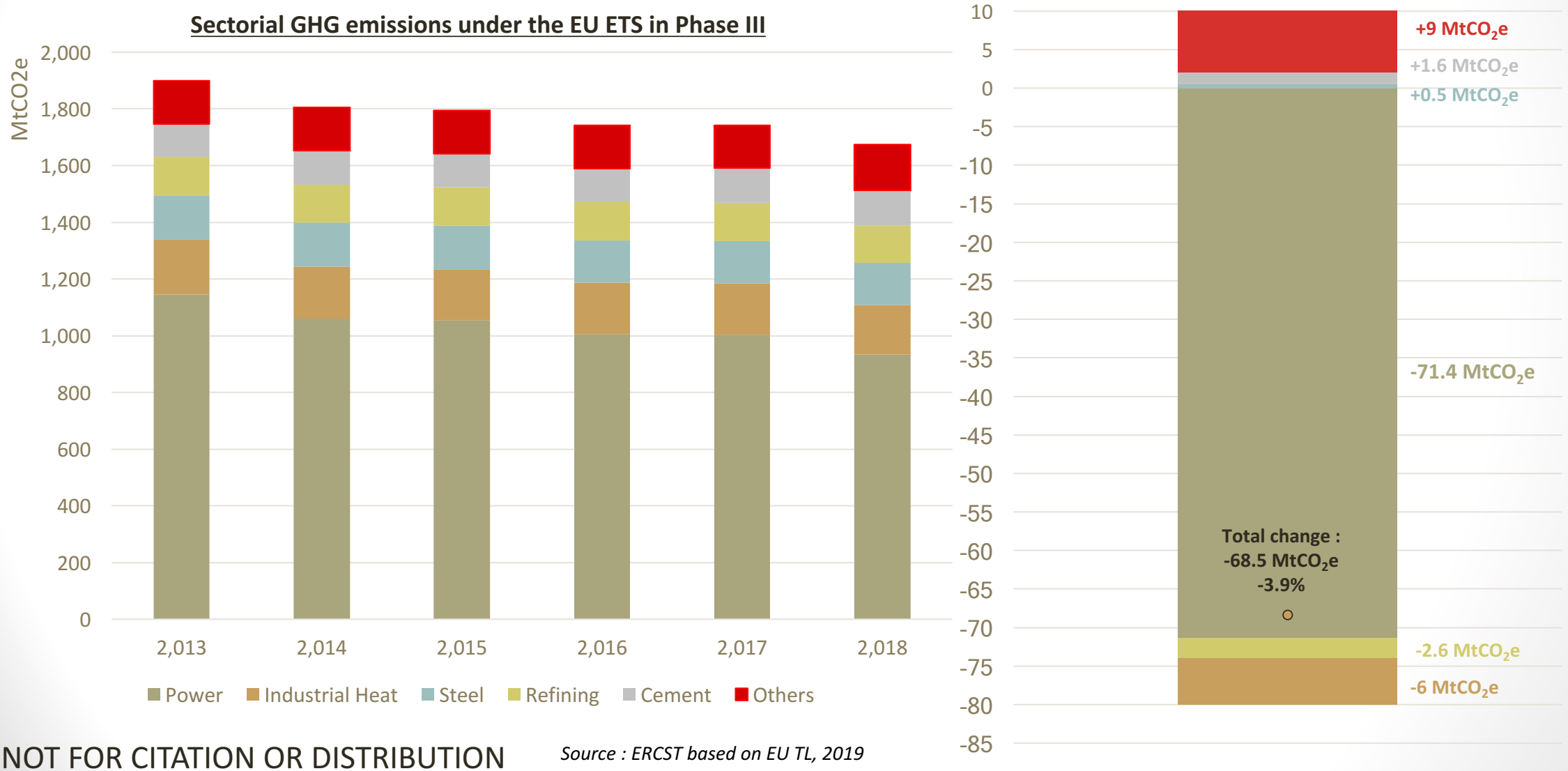
** 2019 emissions are estimates from Sandbag & Agora*

Between 2018 and 2019, emissions decreased **3.3 times** faster than the cap

Interpretation of the graph: between 2013 and 2014, the decrease in emissions was equivalent to 2.5 the decrease in the cap

Source : ERCST, with data from the EEA, Wegener Centre

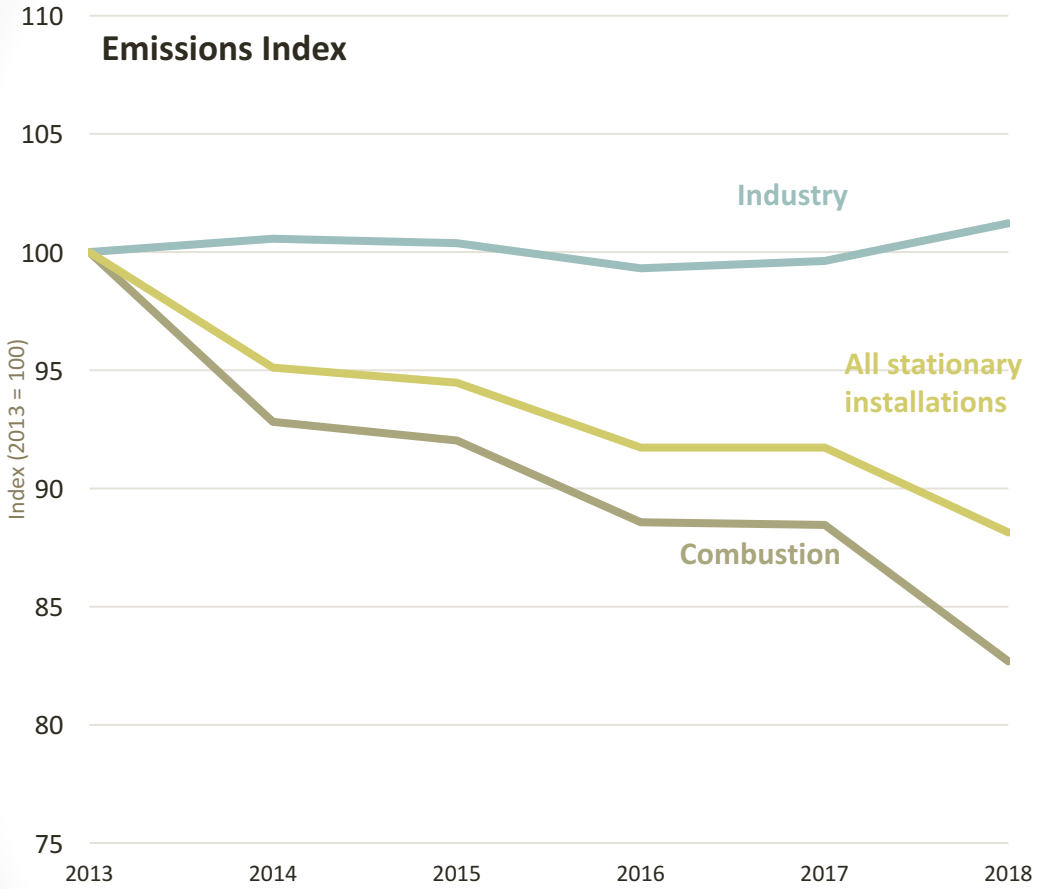
Emission and decarbonisation trends - 2018

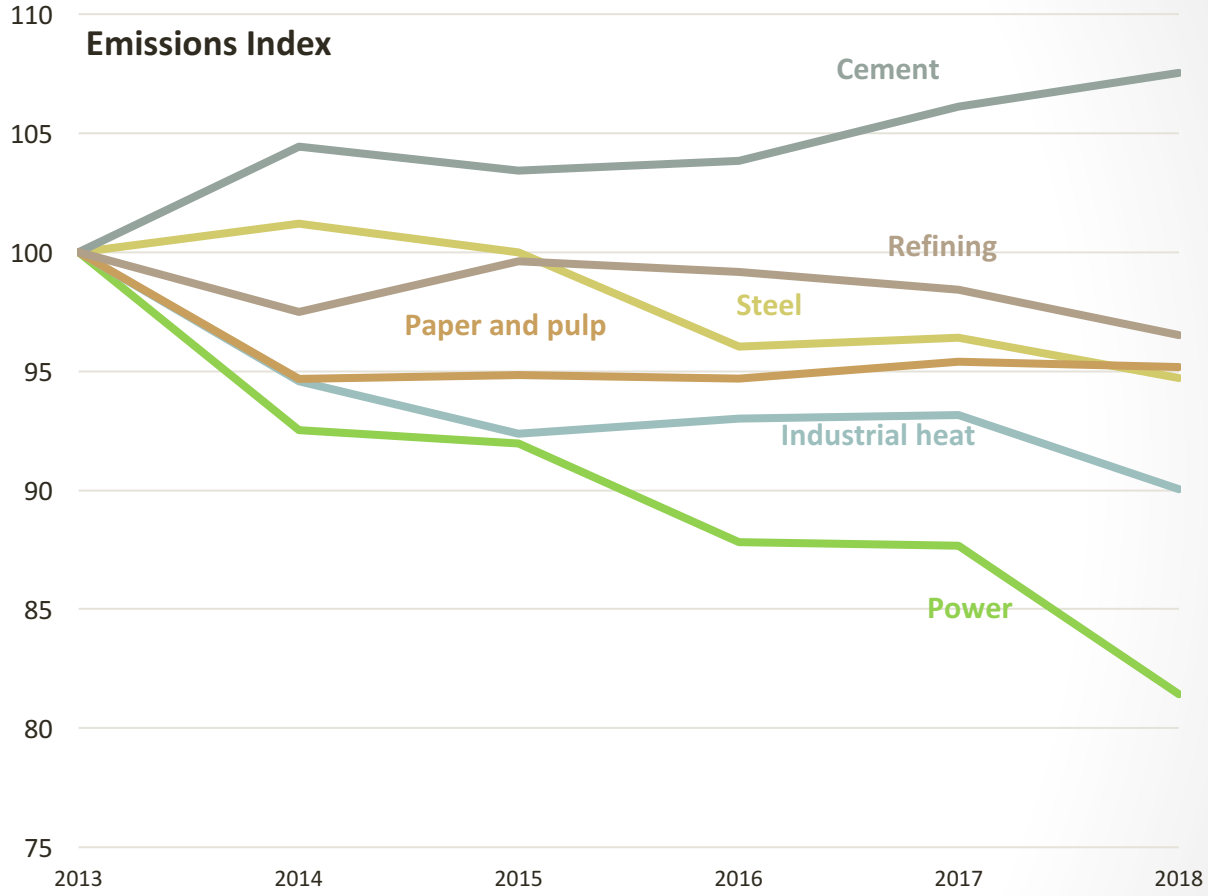


Source : ERCST based on EU TL, 2019

Emission and decarbonisation trends

Emissions Index

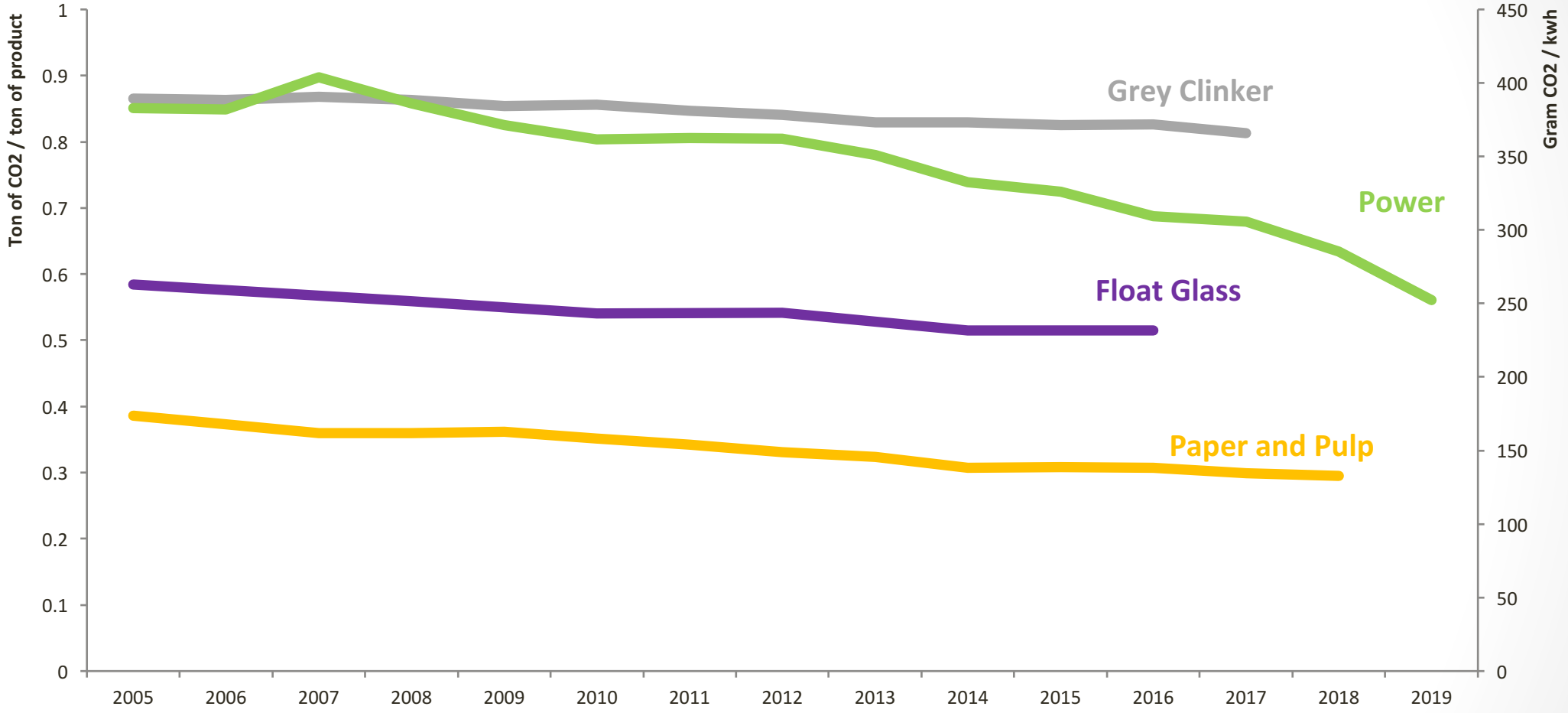




Source: BNEF and ERCST elaborations on EU TL, 2019

Emission and decarbonisation trends

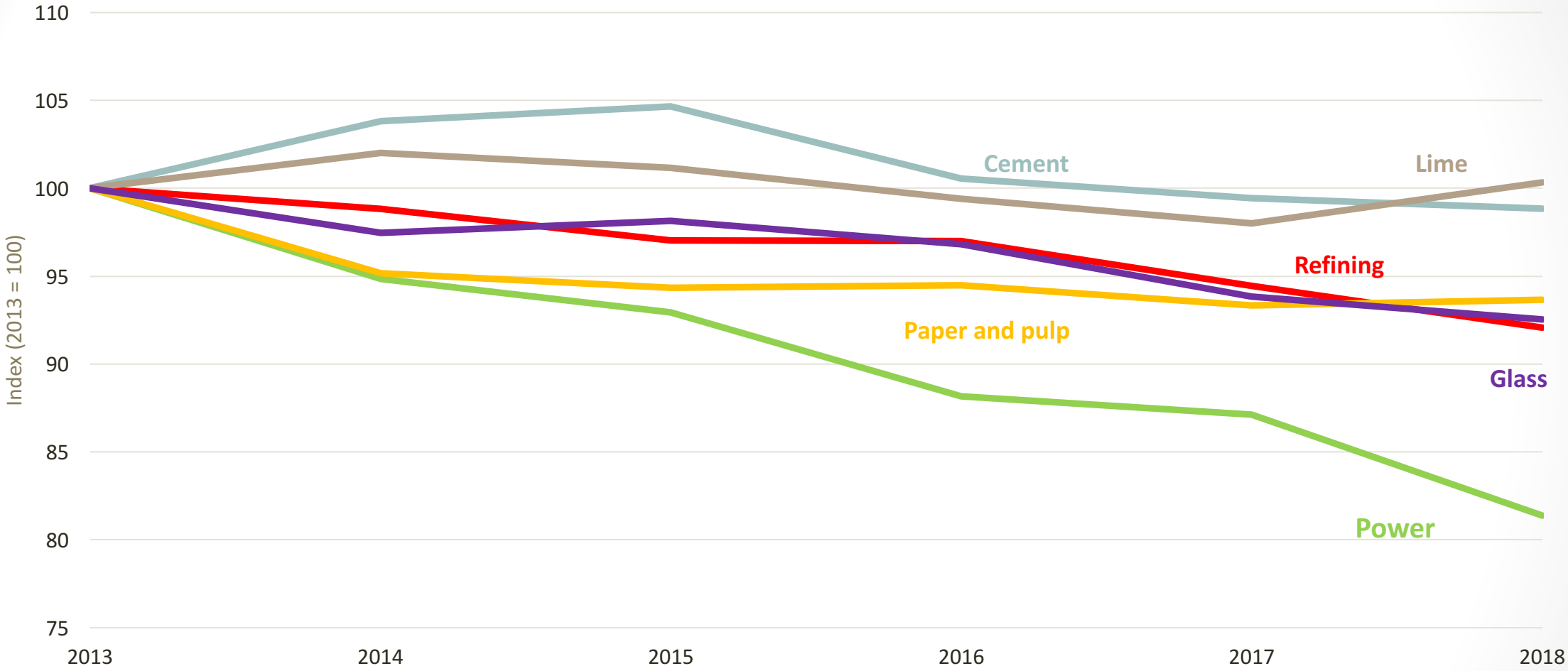
Emission intensity data



Paper and pulp (left axis): ton of CO2/ton of product. *Source: CEPI*
Grey clinker (left axis): ton of CO2/ton of grey clinker. Excludes on site power generation *Source: GNR*
Float glass (left axis): ton of CO2/ton of float glass. Source: Glass for Europe
Electricity (right hand axis): gCO2/kWh ratio of CO2 emissions from the power sector and gross electricity production. *Source: EEA*

Emission and decarbonisation trends

CO2 intensity index

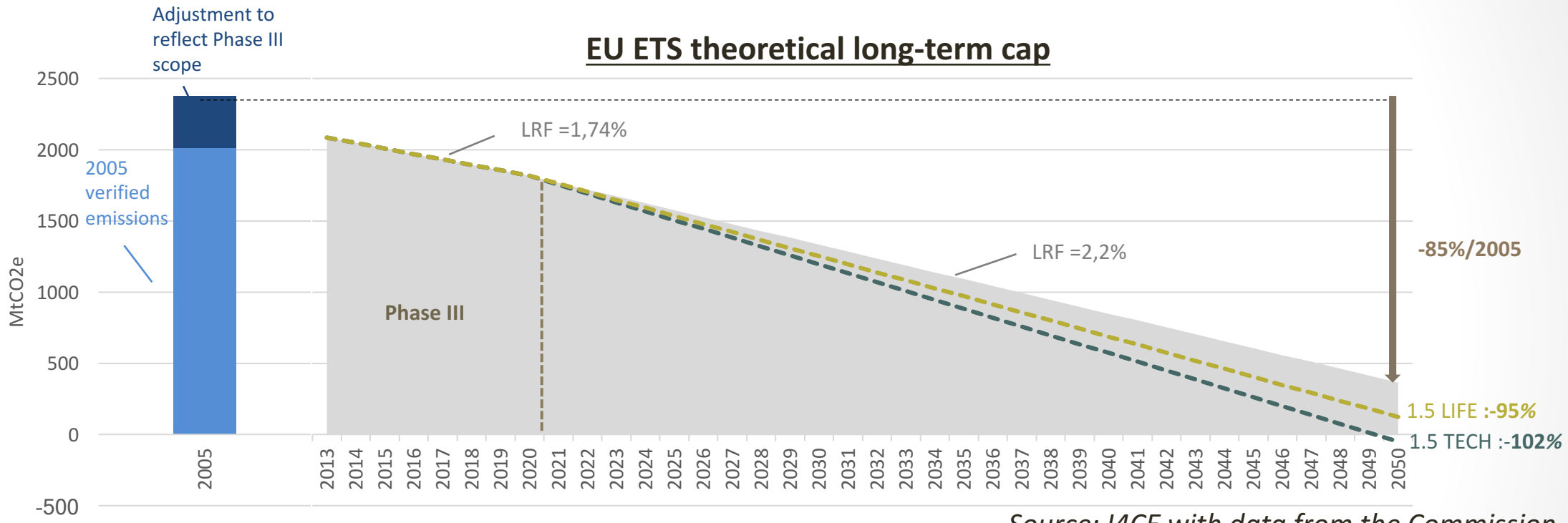


Estimates based on the product of the emissions index (based on EU TL data) and the volume index of production for industrial sectors (Eurostat - sts_inpr_a) and gross electricity production for the power sector (Eurostat - nrg_bal_peh)

Source: BNEF and ERCST elaborations on EU TL, 2019, Eurostat, 2019

Delivery against EU long term domestic climate objectives

Reaching net zero emissions requires a drastic decrease in EU ETS emissions



Source: I4CE with data from the Commission

- Keeping a LRF of 2.2% until 2050 would result in a 85% decrease in EU ETS cap compared to 2005 emissions.
- Net-zero by 2050 scenarios prepared by the Commission in its long-term strategy – 1.5 LIFE and 1.5 TECH- respectively achieve a **reduction of 95% and 102% in EU ETS emissions** in 2050 compared to 2005.
- If the EU ETS cap were to decrease linearly to these levels, it would respectively require increasing the LRF to **2.83%** and **2.57%** from 2021.

Environmental delivery
Conclusion

EU ETS is delivering against trading period target

- Emissions are under target path since 2009
- Emissions decreased again in 2019, down by an estimated 7-8% compared to 2018
- Decarbonisation trends vary significantly in the different sectors
- The EC proposed, by the end of 2018, a strategic long-term vision towards 2050 and presented 8 scenarios, which would have different impacts on the EU ETS
  - All require a drastic departure from the past
- More recently, the net-zero target for 2050 was again put forward in the European Green Deal, and has been endorsed by the Council in December.

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Economic efficiency

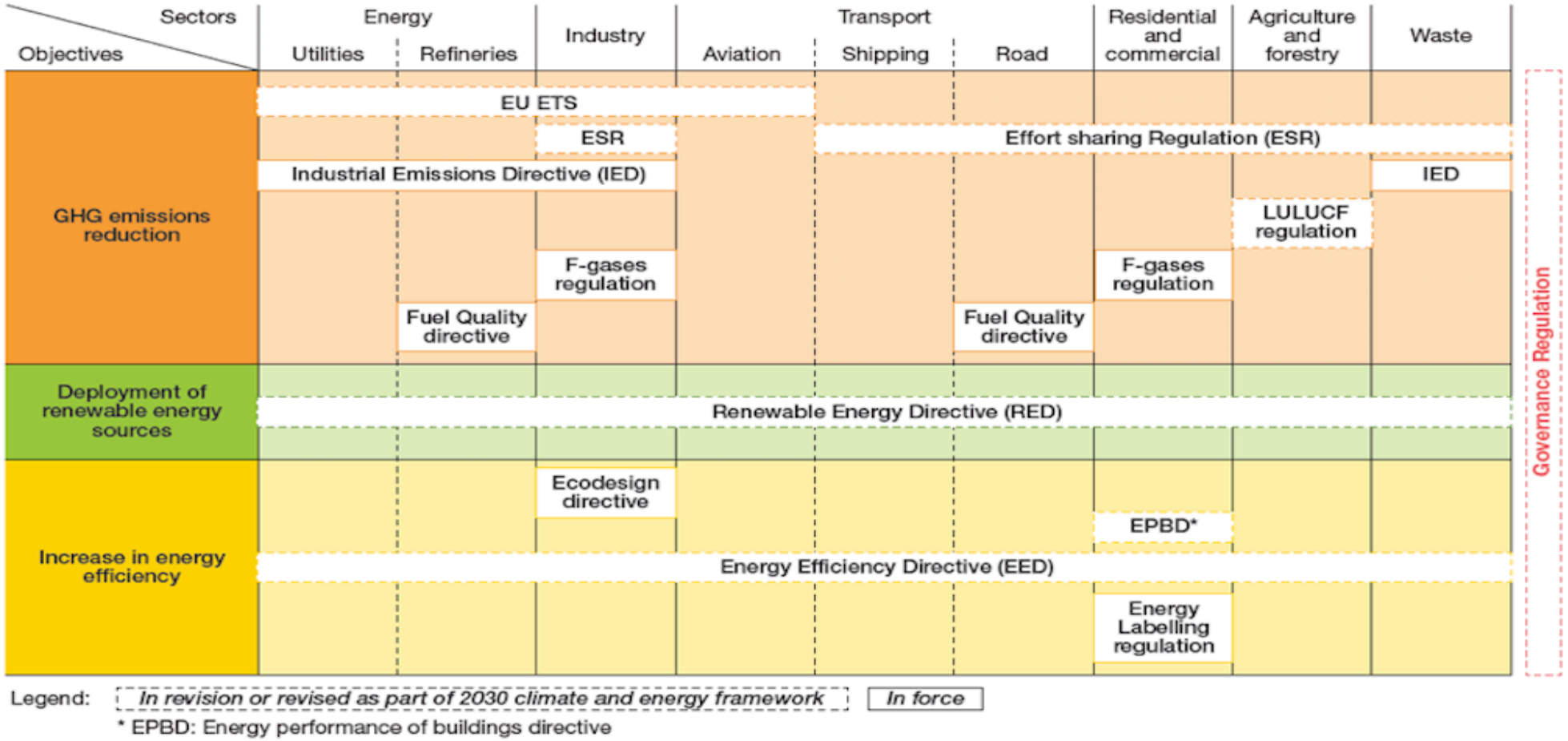
1. Is the EU ETS a driver for change?
   I. Interaction with other policies;
   II. Decarbonization in the power sector;
   III. Deployment of new low-carbon technologies;
   IV. Use of auction revenues.

2. Monetary impacts and carbon leakage
   I. Direct costs
   II. Indirect costs

Interaction with other policies

- The effects of policy overlap create negative impacts on the economic efficiency of EU ETS
- RES/EE targets set at the EU level have implications on the decarbonisation of EU ETS sectors. The EU ETS also interacts with the effort sharing regulation (ESR) and other EU policies for GHG emissions reduction
- Similar implications stemming from national policies, as in the case of coal-phase outs
- The MSR was put in place to partially reconcile the effects of policy overlaps and the EU ETS

Interaction with EU-level policies

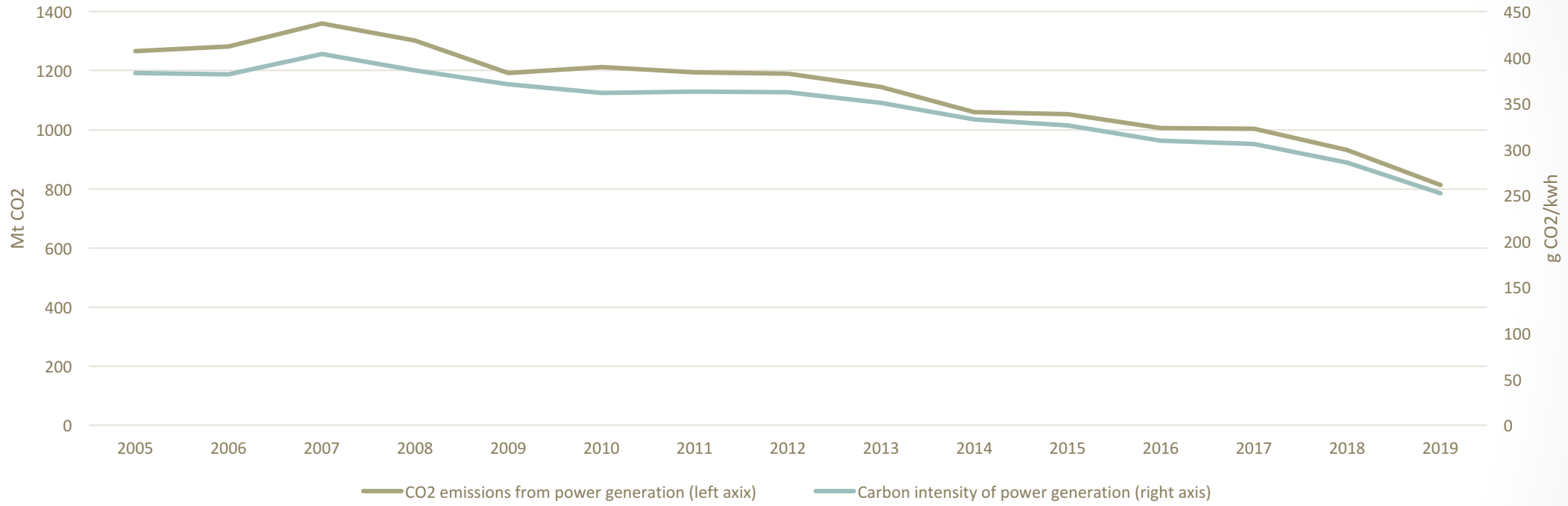


Interpretation of the graph: The different objectives in the left-end column are to be achieved through the legislative texts in the frame with the same color. Those legislative texts apply in the sectors in the respective columns.

Source: I4CE and Enerdata, 2018, based on a visual concept by Ecologic

Decarbonisation in the power sector

CO_2 emissions from the power sector and carbon content of power generation (2005-2019)



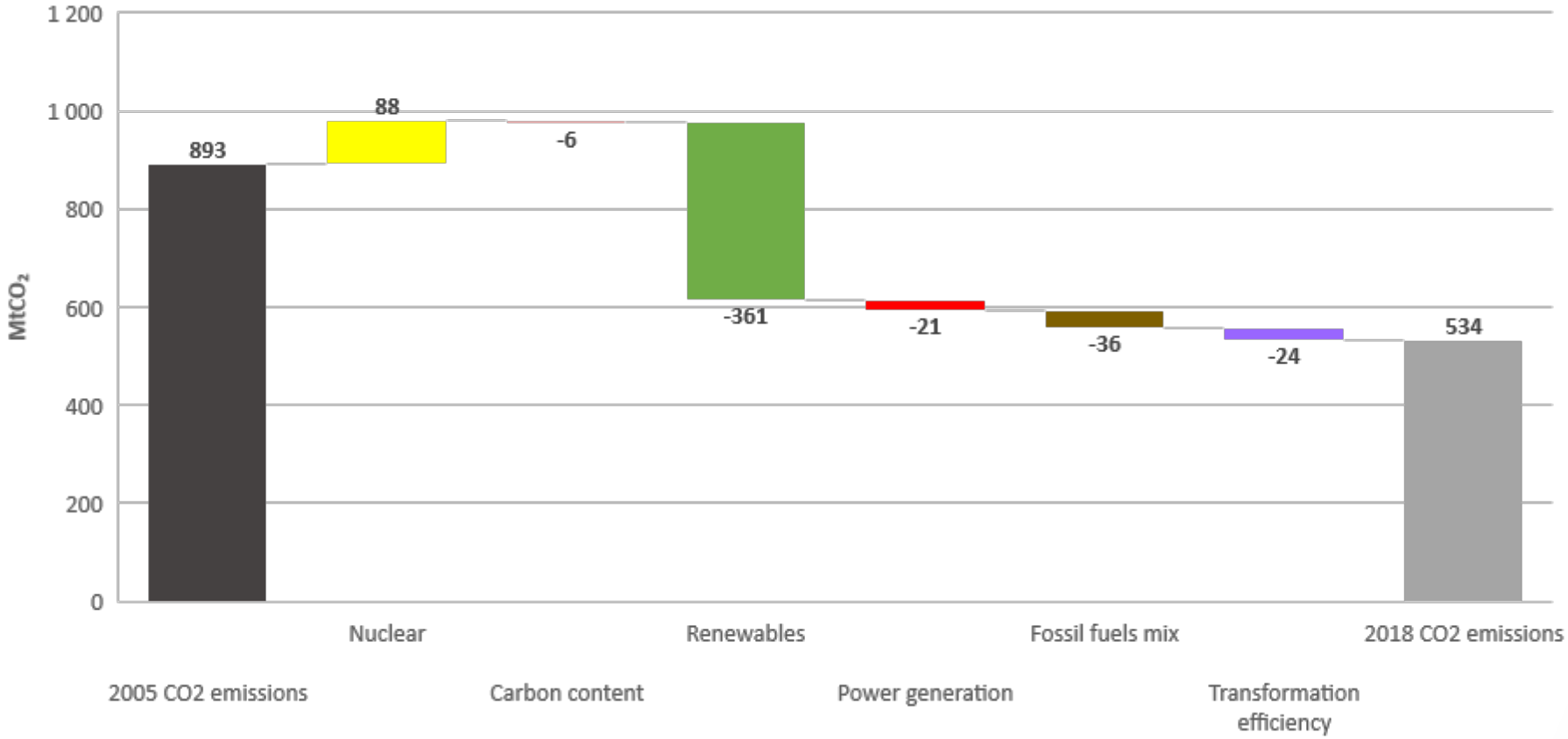
Source : ERCST based on data from BNEF, Eurostat, EU TL

** 2019 emissions are estimates from Sandbag & Agora*

- Between 2005 and 2019, CO_2 emissions from the power sector decreased by an estimated **450 $MtCO_2$ (36%)**.
- In the same period, the carbon intensity of power generation decreased by **34%**.

Decarbonisation in the power sector

Drivers of emissions variations in the power sector in the EU (2005-2018)

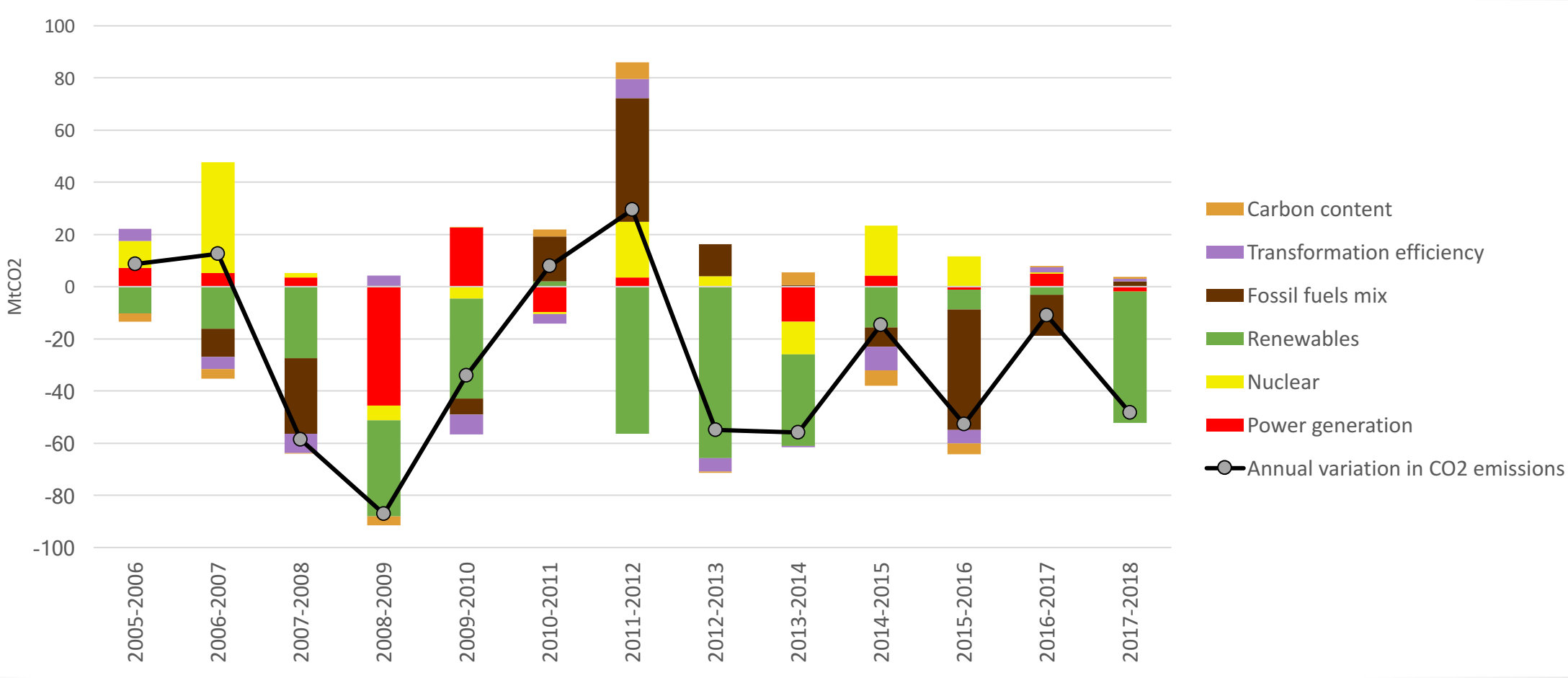


- The **deployment of renewable sources of energy** was the most important driver in decreasing CO_2 emissions in the power sector over 2005-2018: **-359 $MtCO_2e$** over the period 2005-2018 *(for electricity producers whose main activity is electricity producer).*

Source : I4CE based on data from Eurostat

Decarbonisation in the power sector

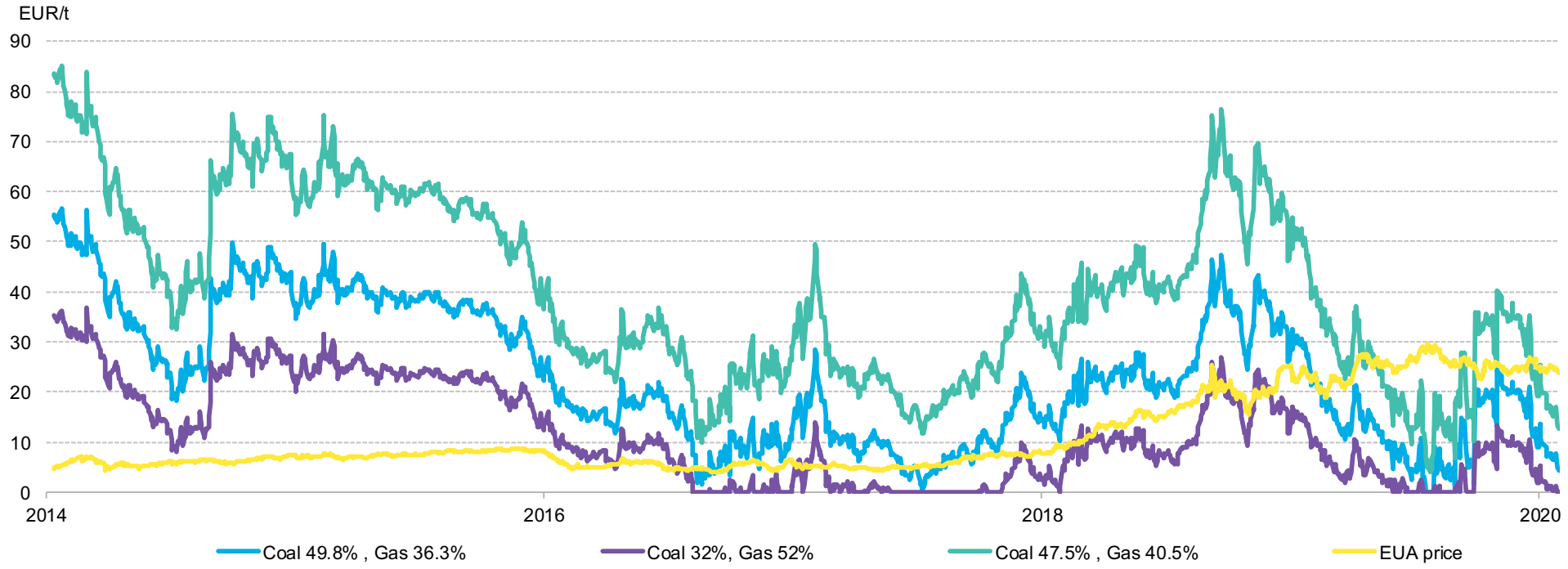
Annual drivers of emissions variations in the power sector in the EU (2005-2018)



Source : I4CE based on data from Eurostat

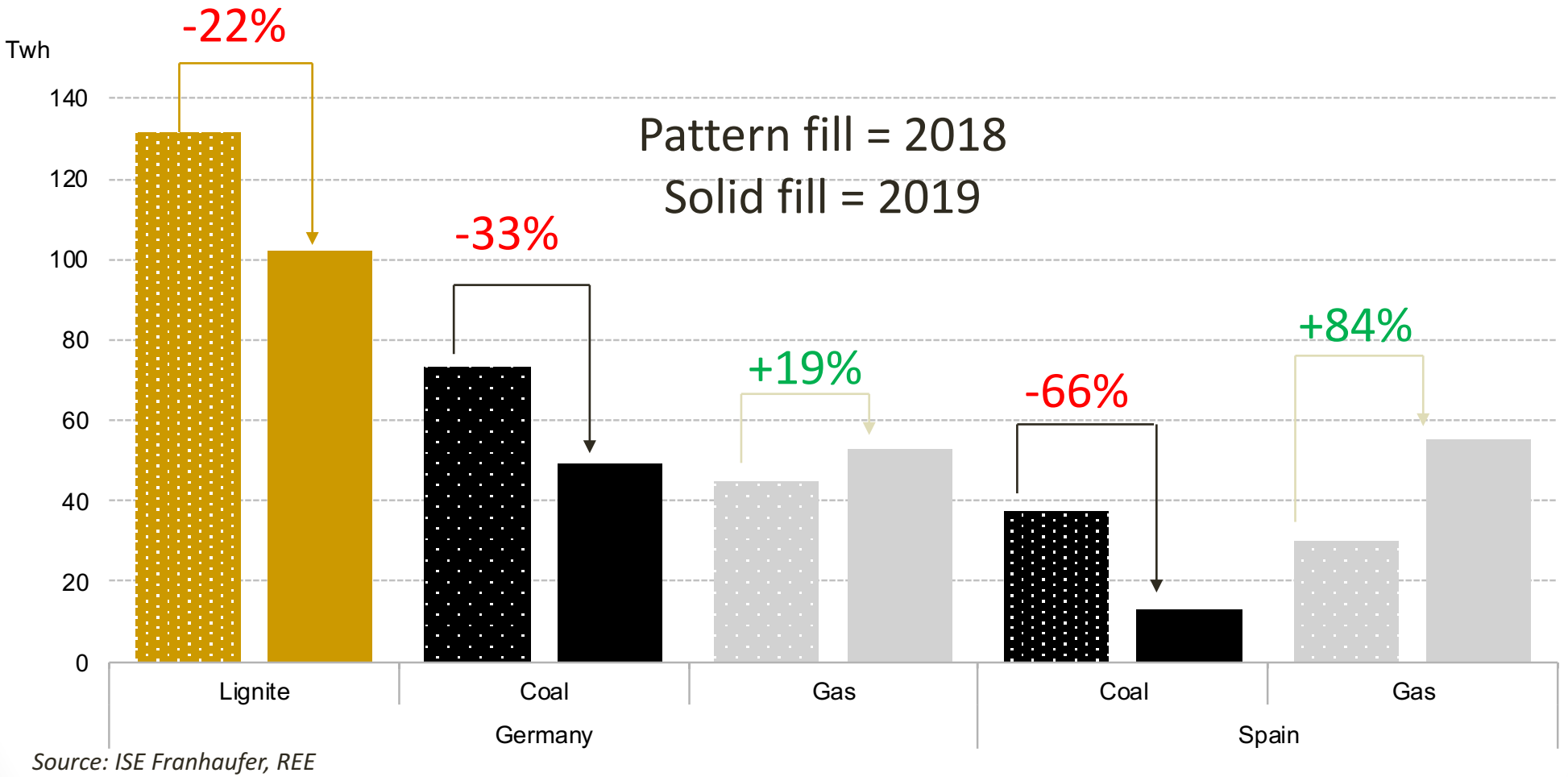
Is the EU ETS a driver for change? Fuel switching

Switching price at different thermal efficiencies



Source: BloombergLP, BloombergNEF

Is the EU ETS a driver for change? Evidence of fuel-switching



Source: ISE Franhaufer, REE

Economic efficiency

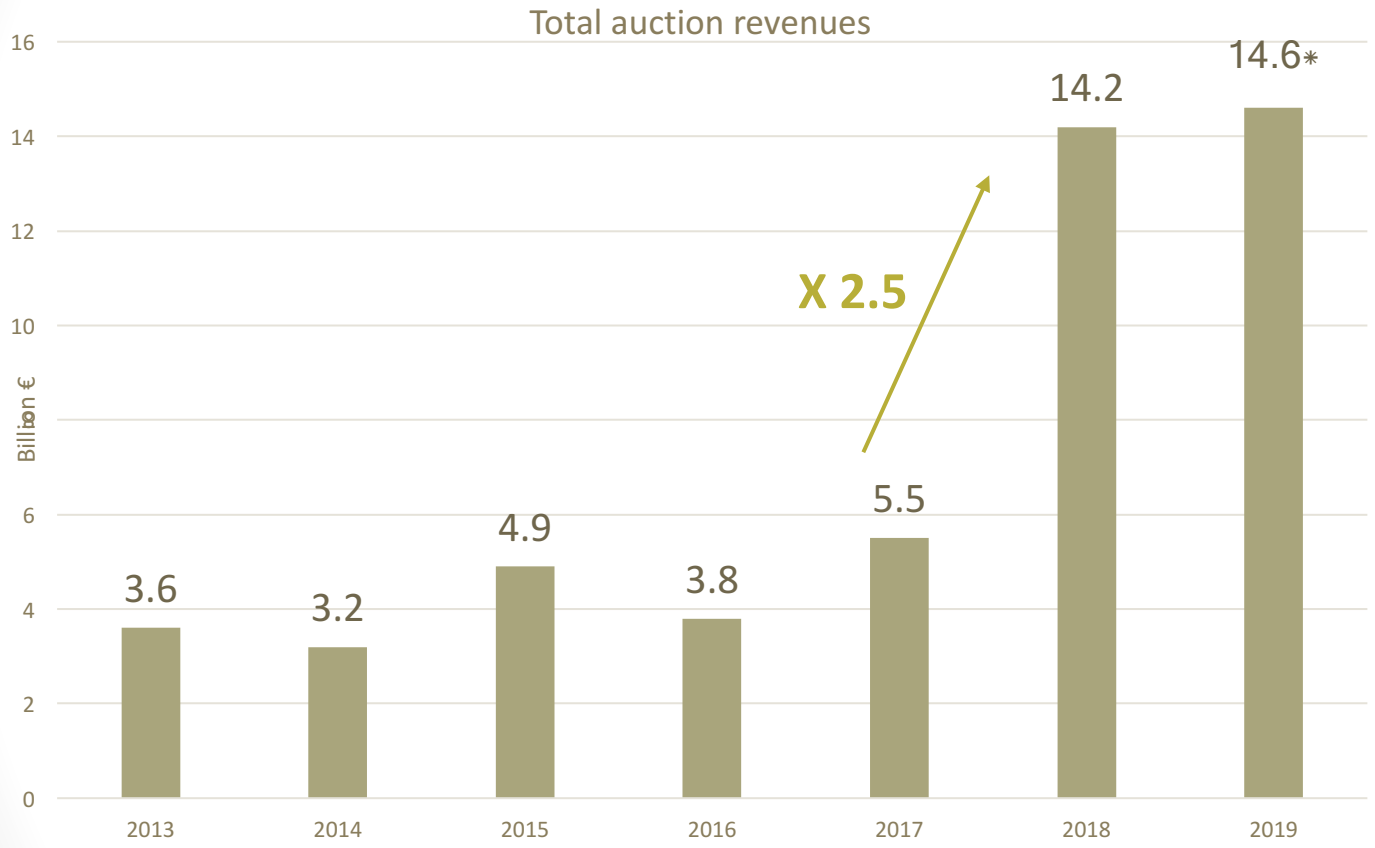
Conclusion on emission reduction in the power sector

Power sector emission covered by EU ETS have so far decreased by over 28% during Phase 3.

- The rate of decarbonisation between 2018 and 2019 was more pronounced to the one we observed in recent years.
- Of course, it is hard to attribute this evolution to the EUA price – renewables penetration happened due to other policies.
- Looking at 2019 specifically, this can be attributed to a number of reasons:
  - Fuel switching due to higher carbon pricing together with lower gas prices. A continuation of renewable penetration in the EU power mix due to contributing policies.
  - A strong output for renewable sources (wind +14.4%; and solar +7.4%)
  - A rather “warm” year, resulting in a decrease in overall consumption (-1.7%)

Is the EU ETS a driver for change?

More revenues from auctions = more money for climate action?



- In 2018, total revenues from the auctioning of allowances reached **14.6 billion €**
- 2018 saw a large increase due to the increasing EUA price
- Revenues in 2019 remain at similar levels to 2018, despite the the fact that the amount of allowances auctioned decreased significantly *(MSR functioning + no UK auctions)*

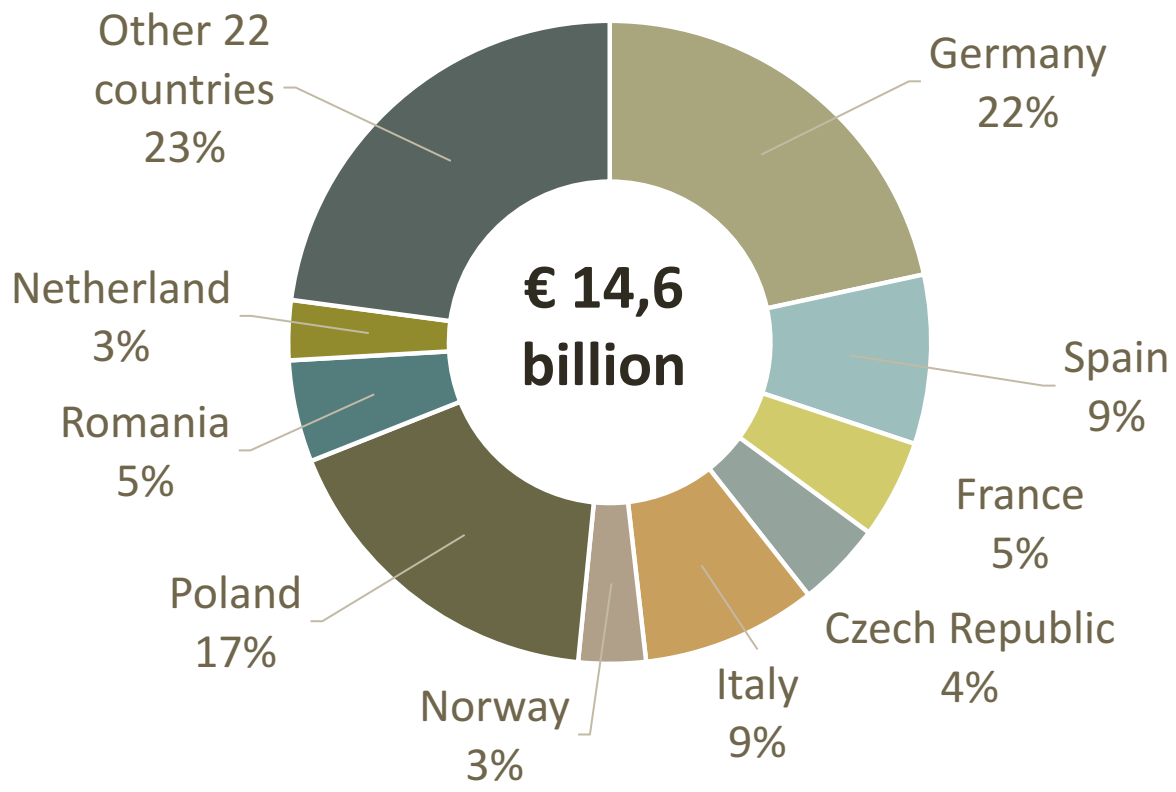
Source: ERCST, with data from EEX and ICE

** Without UK*

Is the EU ETS a driver for change?

More revenues from auctions = more money for climate action?

Total EU ETS 2019 auction revenues breakdown amoung Member States



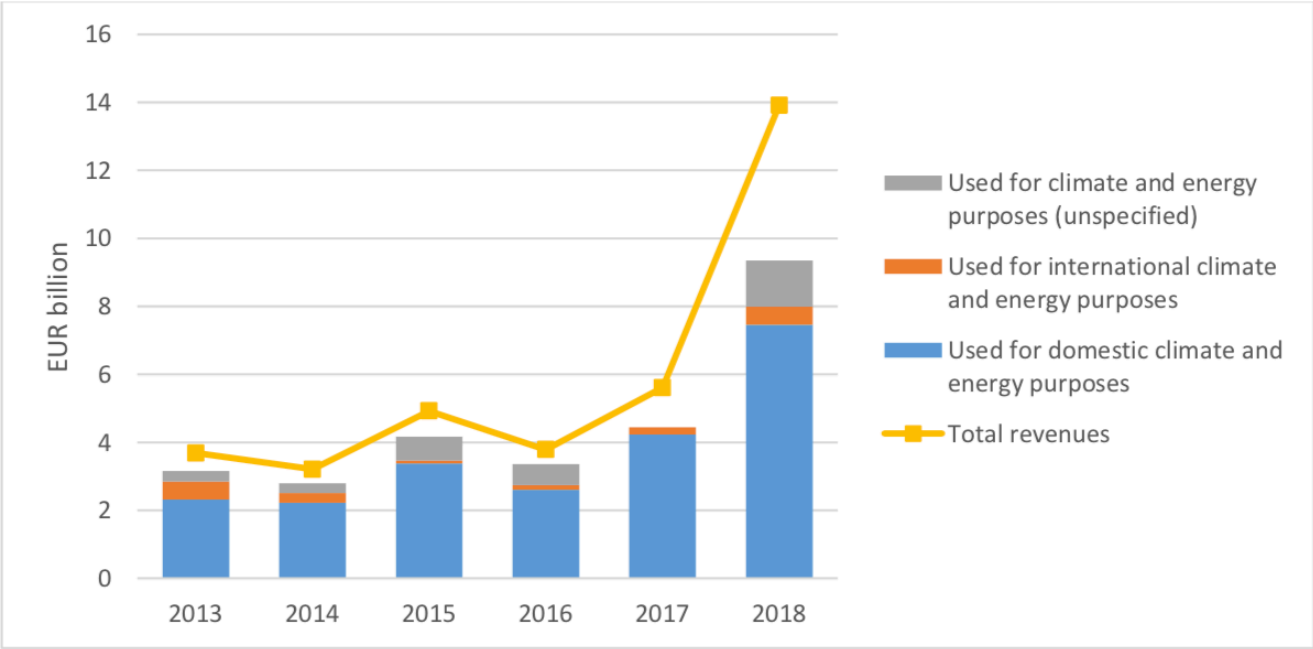
Source: data from EEX

- **Each Member State decides the use of their EU ETS revenues : climate and energy purposes, national budget or others.**
- Over 2013-2018, **around 80% of auction revenues** were spent for climate and energy purposes, mainly in the EU.

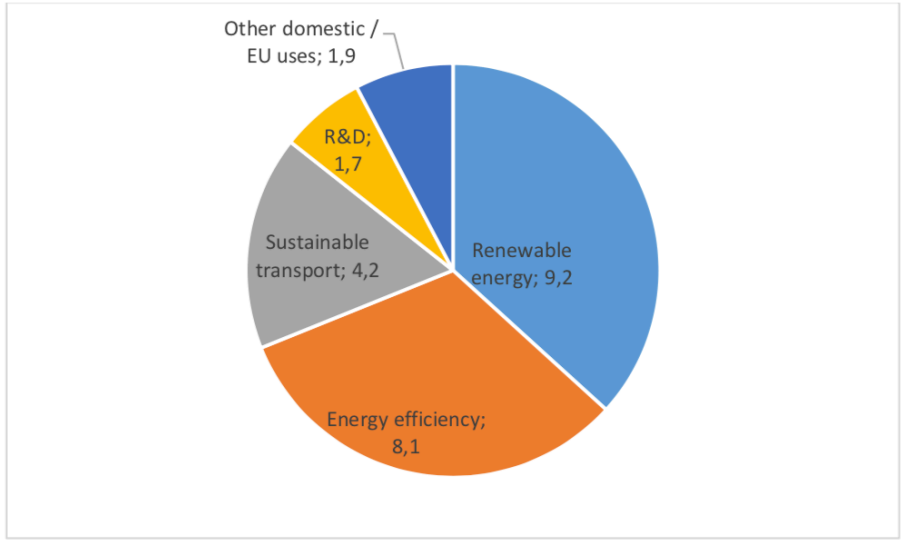
Is the EU ETS a driver for change?

More revenues from auctions = more money for climate action?

Revenues from the auctioning of EU ETS allowances 2013-2018



Use of revenues for domestic climate and energy purposes from auctioning of ETS allowances, 2013-2018 (EUR billion)

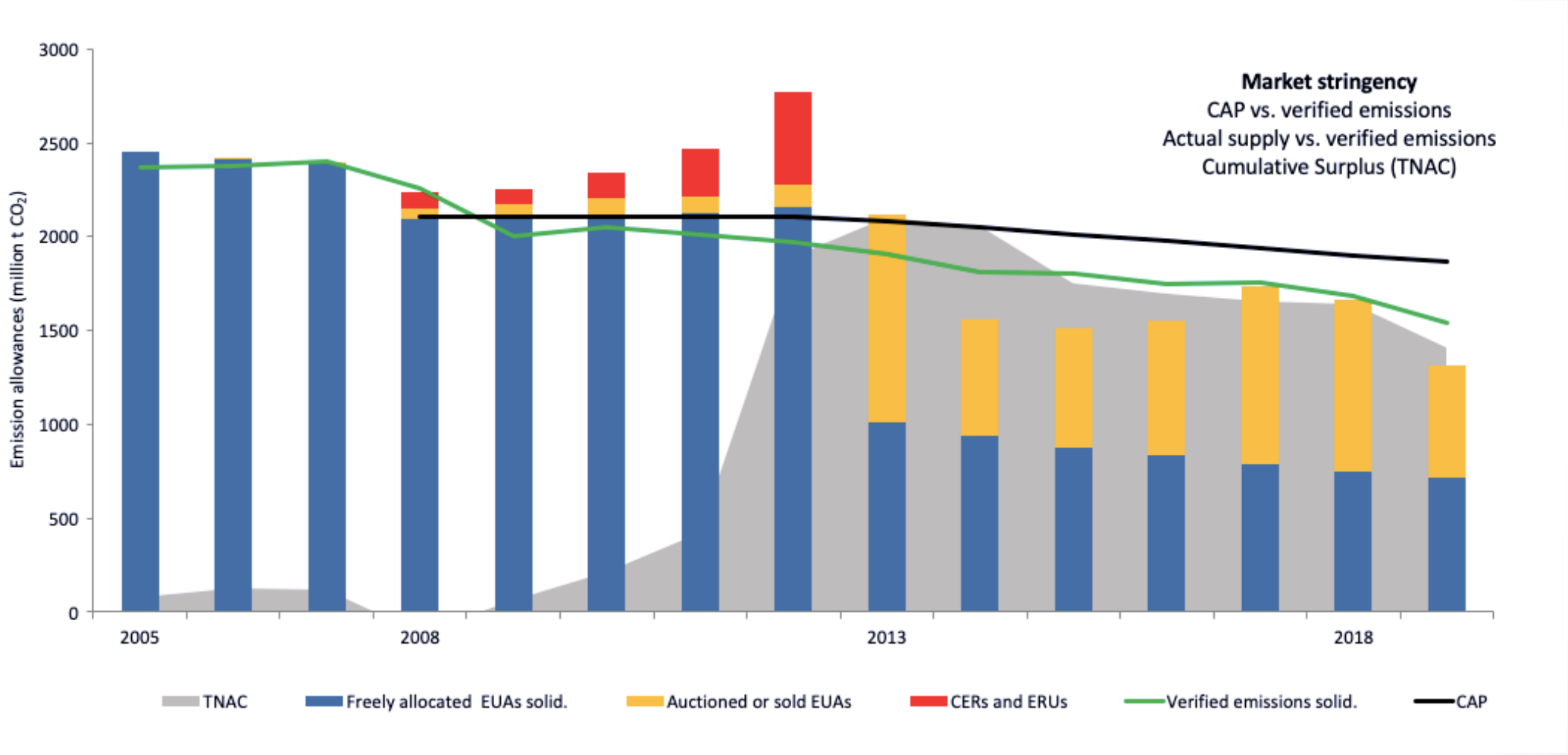


Source: Report From The Commission To The European Parliament And The Council (2019)

Monetary impacts and carbon leakage

- **Direct costs**
- Indirect costs

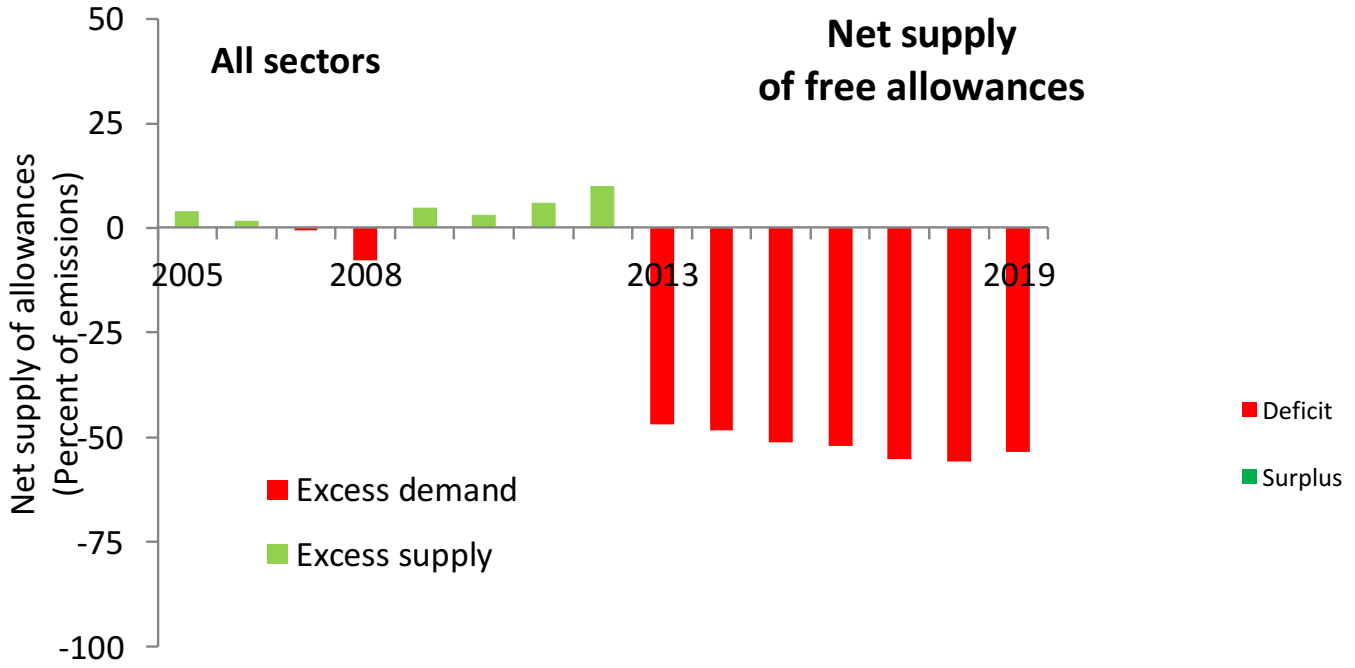
Market balance in EU ETS



Source: Wegener Center (2019)

**2019 is an estimate based on preliminary data*

Overall free allocation vs emissions in EU ETS

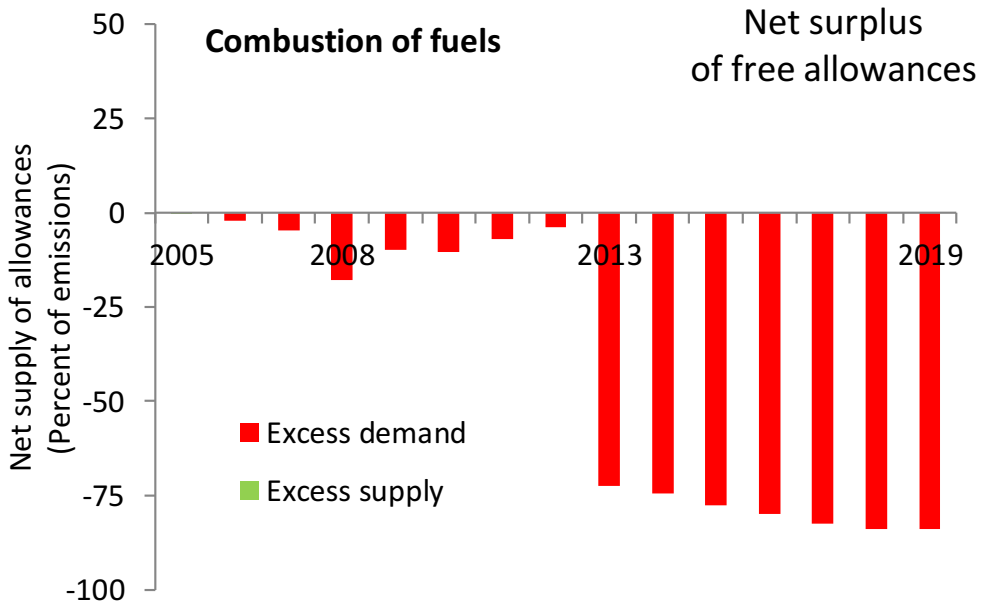


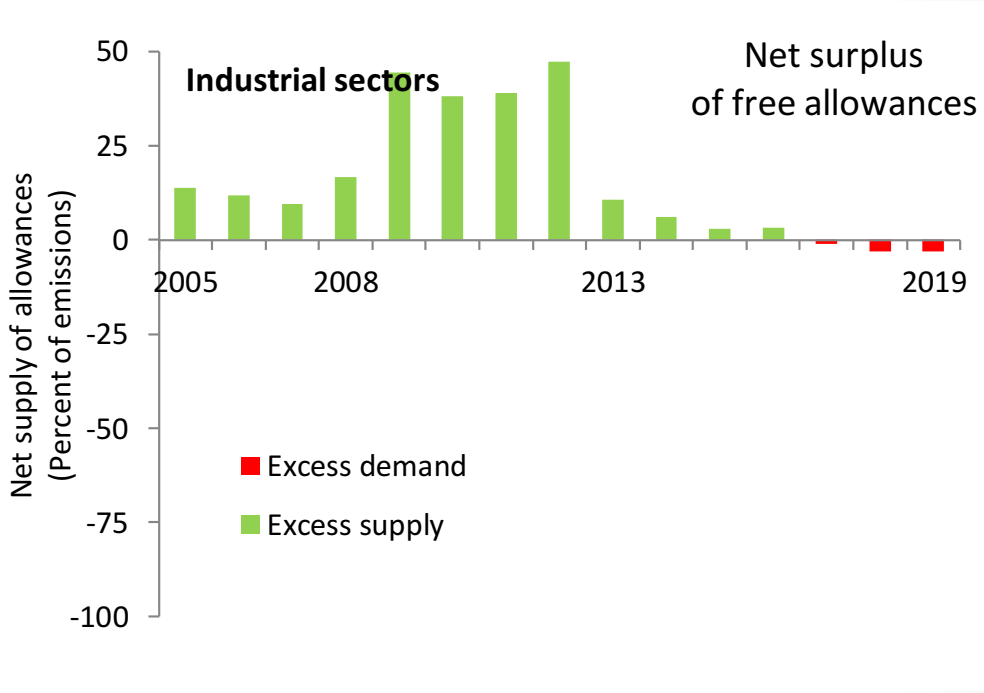
Source: Wegener Center elaborations on EEA, 2019 and EU TL, 2019

**2019 is an estimate based on preliminary data*

- Net supply of free allowances, defined as (free allowances/emissions – 1)*100 measures the stringency of sectors and installations

Stringency in EU ETS: combustion and industry

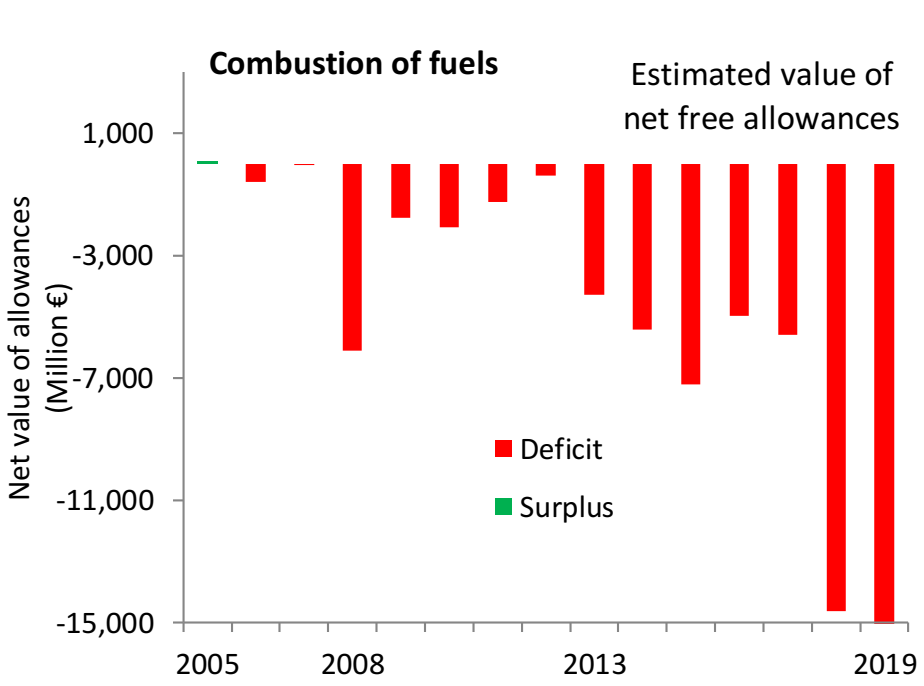


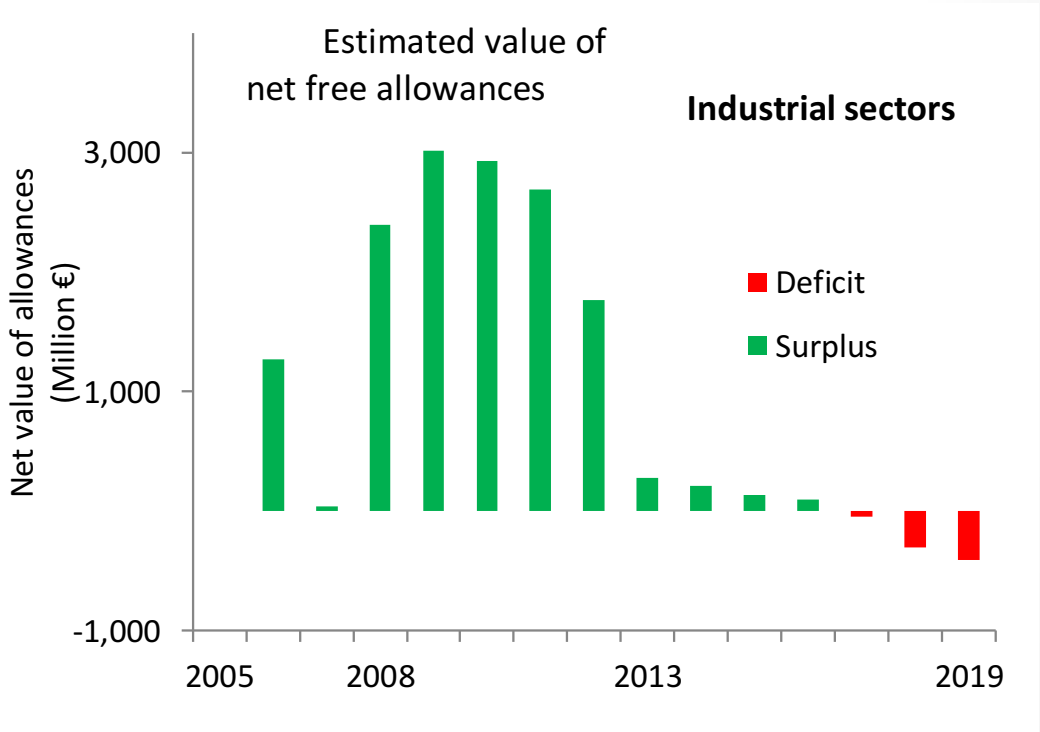


Source: Wegener Center elaborations on EEA, 2019 and EU TL, 2019

**2019 is an estimate based on preliminary data*

Net costs of allowances: combustion and industry



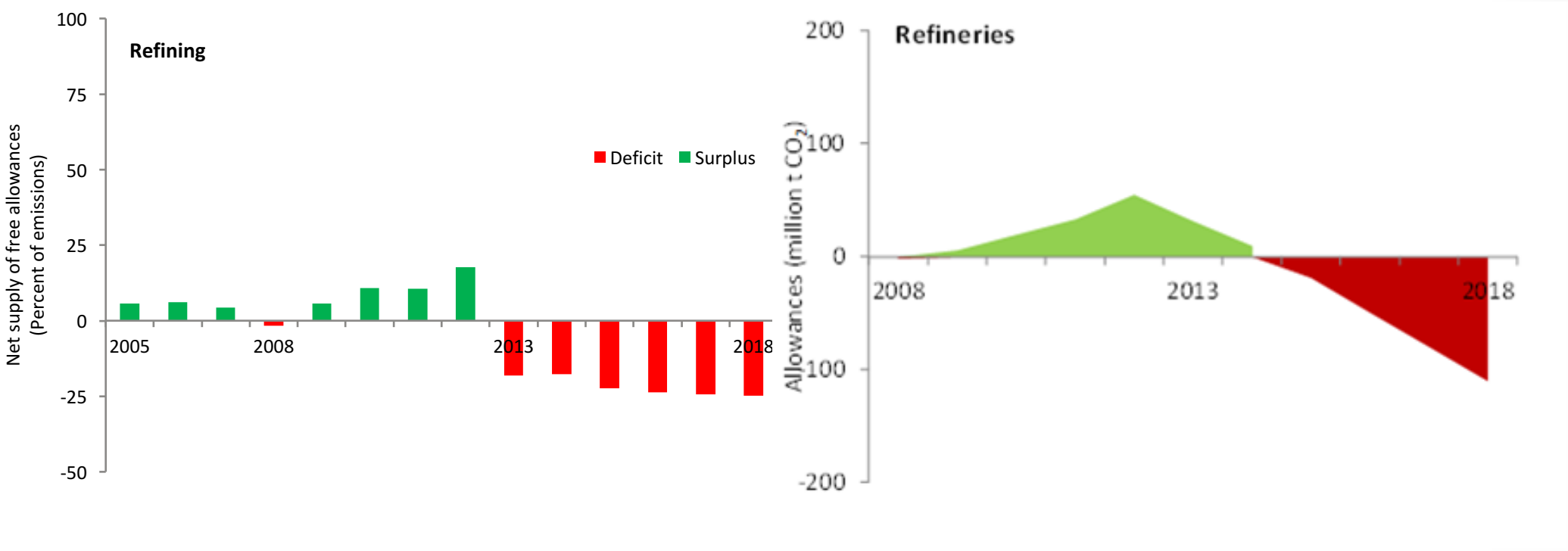


Source: Wegener Center elaborations on EEA, 2019 and EU TL, 2019

**2019 is an estimate based on preliminary data*

Sectoral stringency: refining of mineral oil

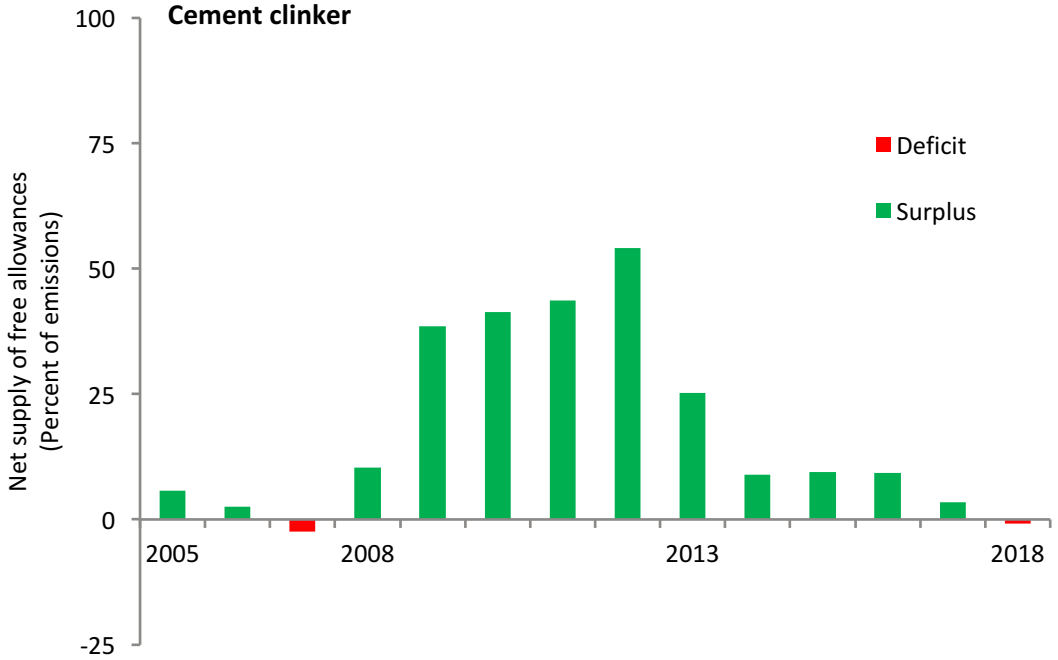
- Activity 21

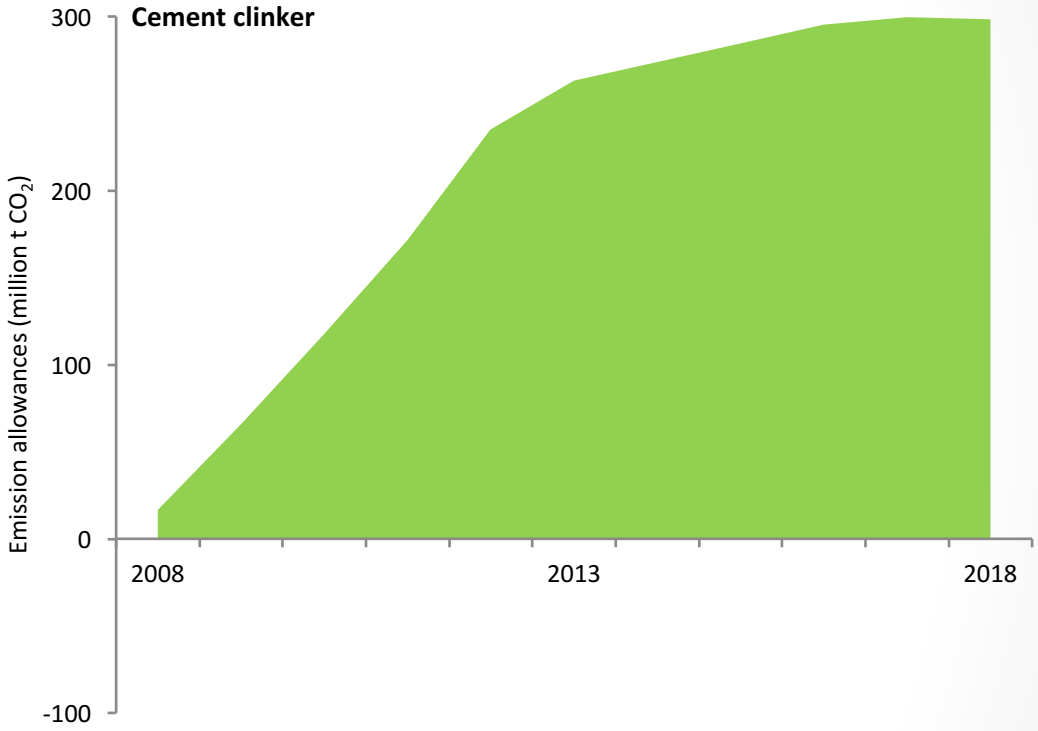


Source: Wegener Center elaborations on EEA, 2019 and EU TL, 2019

Sectoral stringency: cement clinker

- Activity 29

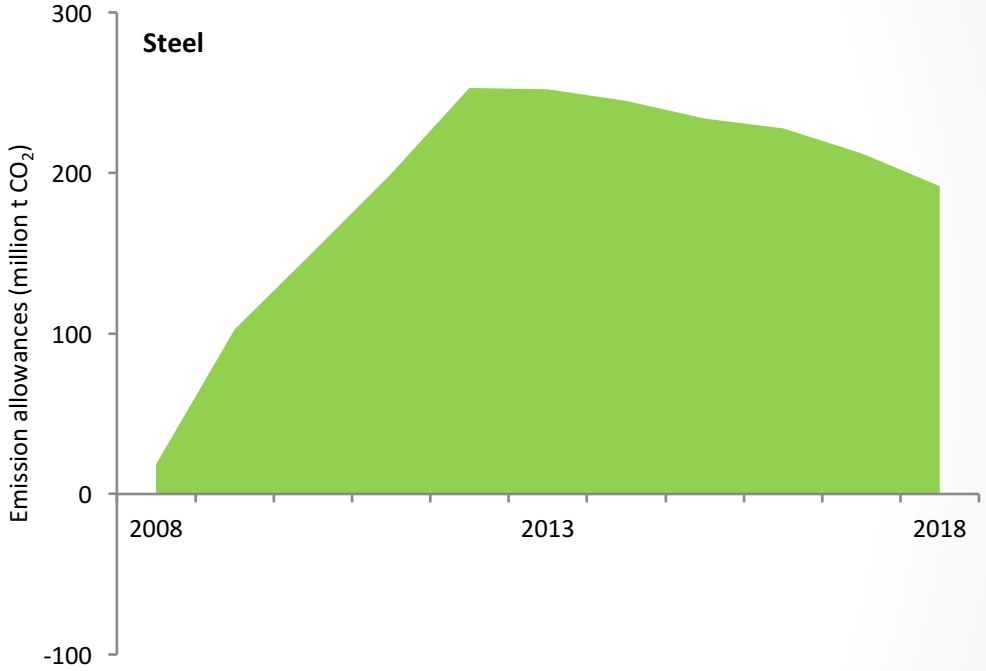




Source: Wegener Center elaborations on EEA, 2019 and EU TL, 2019

Sectoral stringency: steel

- Activity 22, 23, 24, 25 and flue gas



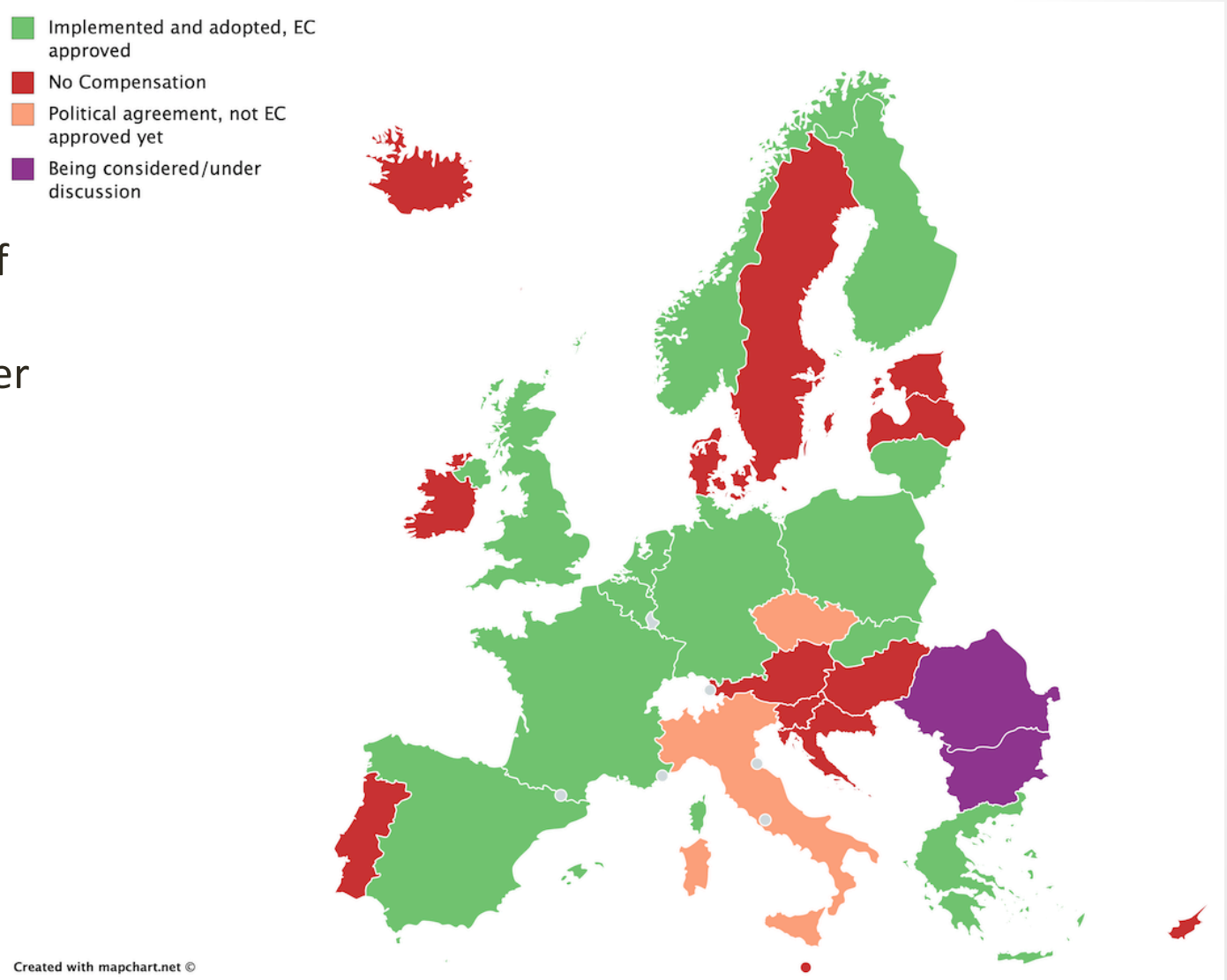
Source: Wegener Center elaborations on EEA, 2019 and EU TL, 2019

Monetary impacts and carbon leakage

- Direct costs
- **Indirect costs**

Indirect Costs

- No harmonized approach – risk for market distortion
- Subject to 'state aid guidelines'
- Distortion was a real concern in the beginning of Phase 3: only a handful of MS had a scheme in place.
- This amount has increased steadily over the last few years, and continues to increase
  - 2017: 10 Schemes in place
  - Luxembourg and Wallonia (Belgium): 2018
  - Poland: 2019
  - Czech Republic and Italy: political agreement
  - Romania and Bulgaria: under discussion



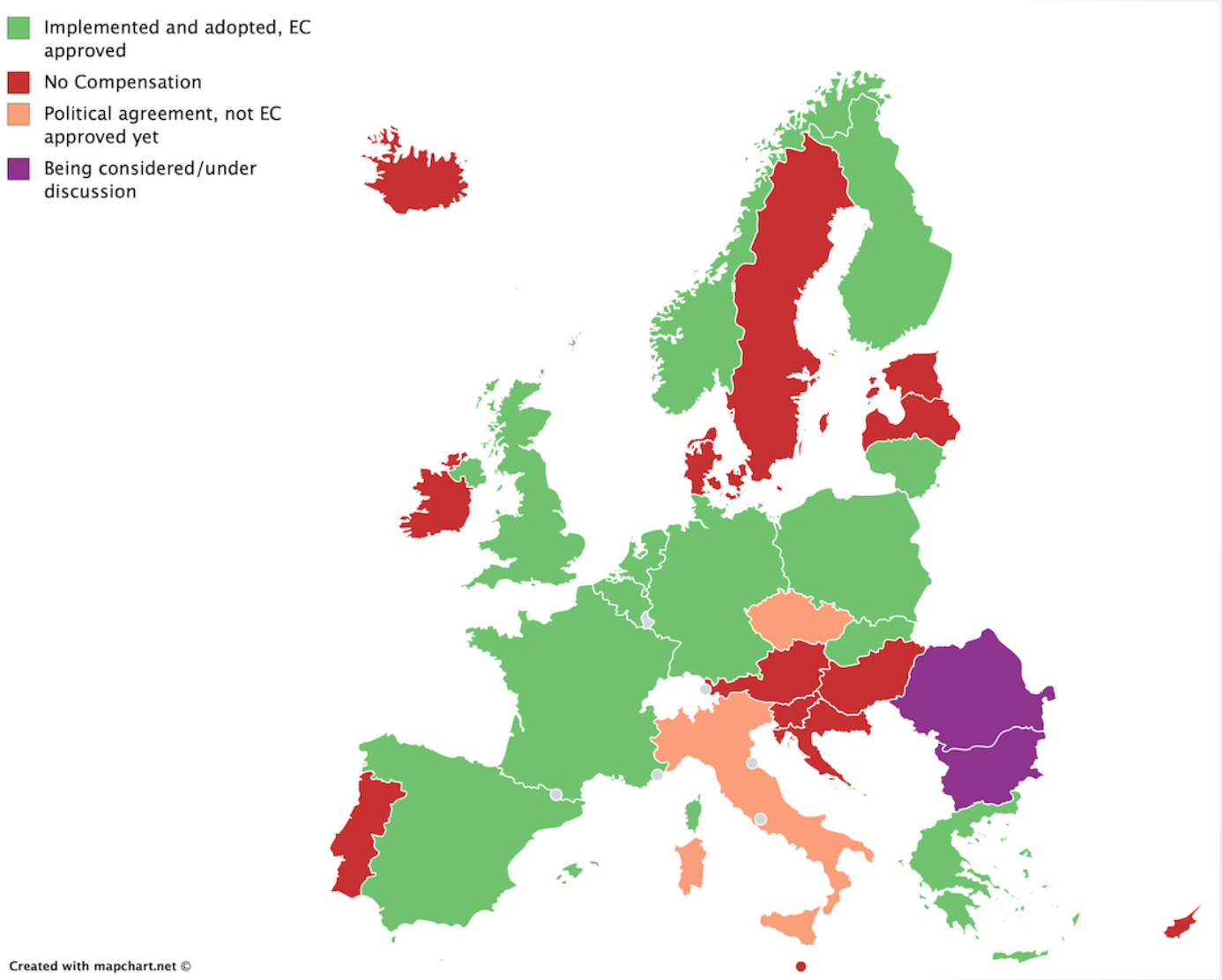
Indirect Costs – compensation granted

Member State	Compensation paid for 2016 (€ million)	Auction revenues 2016 (€ million)	Percentage	Compensation paid for 2017 (€ million)	Auction revenues 2017 (€ million)	Percentage
Flanders	46.75	56.92	82.14%	31.72	76.14	41.67%
Wallonia	/	/	/	7.5	68.17	11%
Netherlands	53.59	142.61	37.58%	36.9	190.71	19.35%
Germany	288.72	850.39	33.95%	202.21	1,146.82	17.63%
UK	19	424.33	4.48%	17.16	566.48	3.03%
Spain	71.44	369.46	19.34%	66.64*	493.55	13.50%
France	135.15	234.68	57.59%	98.73	313.40	31.50%
Slovakia	10	65.05	15.37%	10	87.06	11.49%
Finland	37.91	71.22	53.22%	26.75	95.26	28.08%
Lithuania	1.04	11.5	8.70%	0.24	15.39	1.54%
Greece	12.4	148.05	8.38%	12.44	198.03	6.28%
Luxembourg	/	/	/	3.4	6.87	49.5%

Source: Member States reports on indirect costs compensation

Indirect Costs

- **2020 situation**
  - ETS Emissions covered: 73%
  - Energy use by industry: 69%
- **+ Italy & Czech Republic**
  - ETS Emissions covered: 85%
  - Energy use by industry : 83%
- **+ Romania & Bulgaria**
  - ETS Emissions covered: 89%
  - Energy use by industry : 86%



Indirect Costs

- **Draft guidelines** for indirect costs compensation in Phase 4 were published on January 8 2020
  - Stricter eligibility criteria result in **fewer sectors being eligible** - *from 13 sectors and 7 subsectors to 8 sectors (and 4 eligible for qualitative assessment)*
  - **Conditionality** to aid received: Energy efficiency improvements, renewables or direct investments towards direct emission reductions.
  - **Aid intensity constant** at 75% of costs incurred *(vs. digressive in Phase 3)*
  - **Dynamic** compensation: actual output levels; annual decreasing benchmarks
- A changed narrative on the risk of Carbon Leakage?
  - Risk of carbon leakage vs. ***genuine*** risk of carbon leakage – **towards tiered risk assessment?**
  - Additional support can be given for those sectors that face the highest costs as a percentage of their GVA – **towards tiered costs compensation**?

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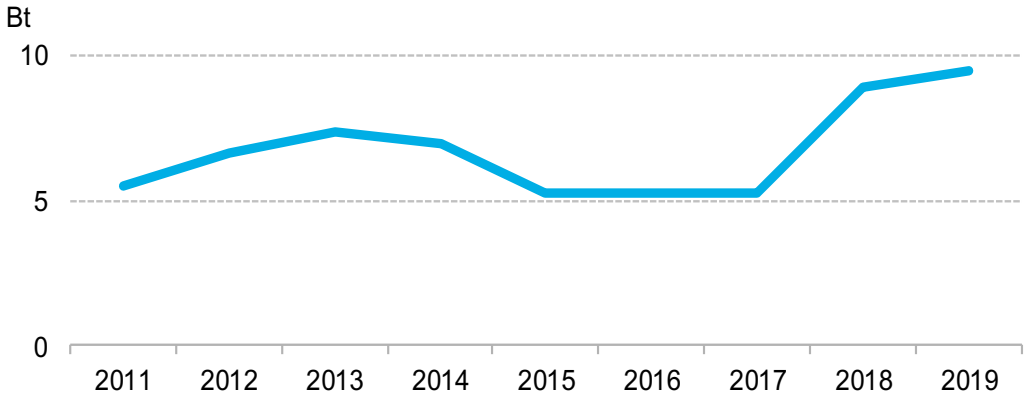
Indicators

Indicator	2018/2017	2019/2018
Volumes		
Open Interest		
Auction participation		
Auction coverage		
Auction vs Spot spread		
Bid-ask spread		
Cost of carry		
Volatility		

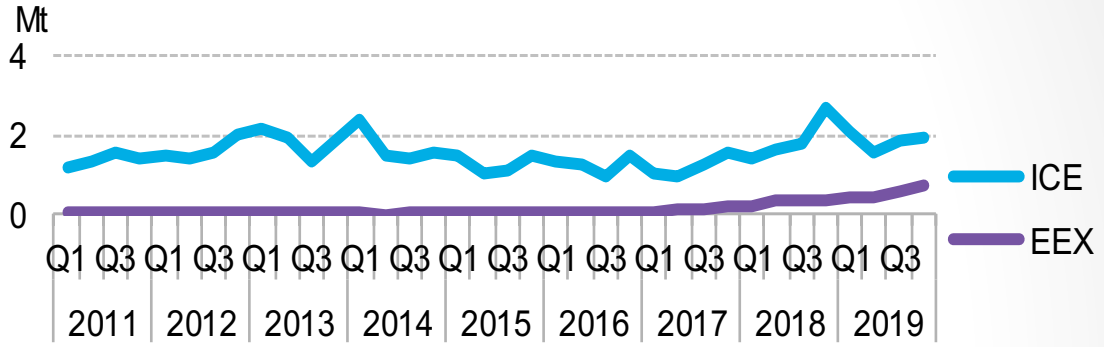
Volumes

Annual traded volumes

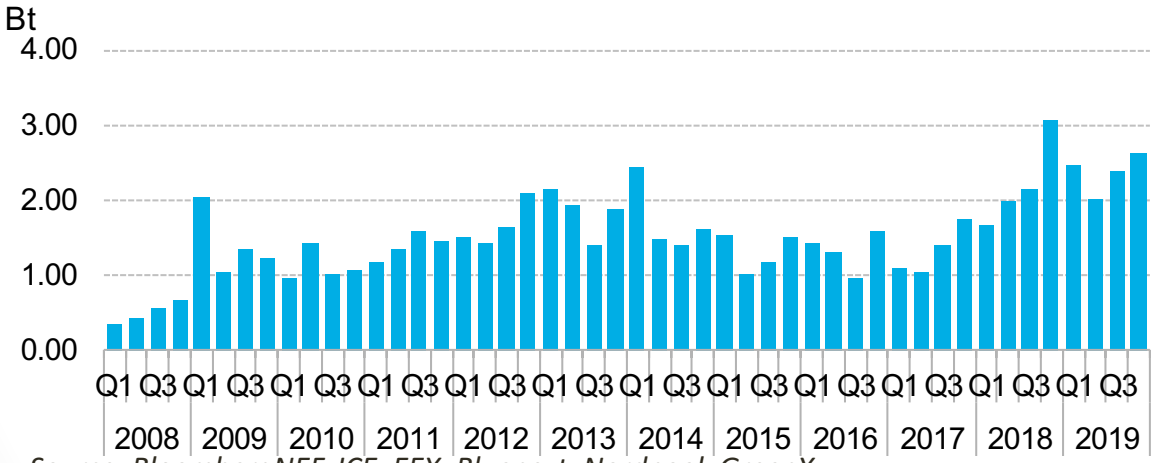


Source: BloombergNEF, ICE, EEX, Bluenext, Nordpool, GreenX

Traded volumes on ICE and EEX



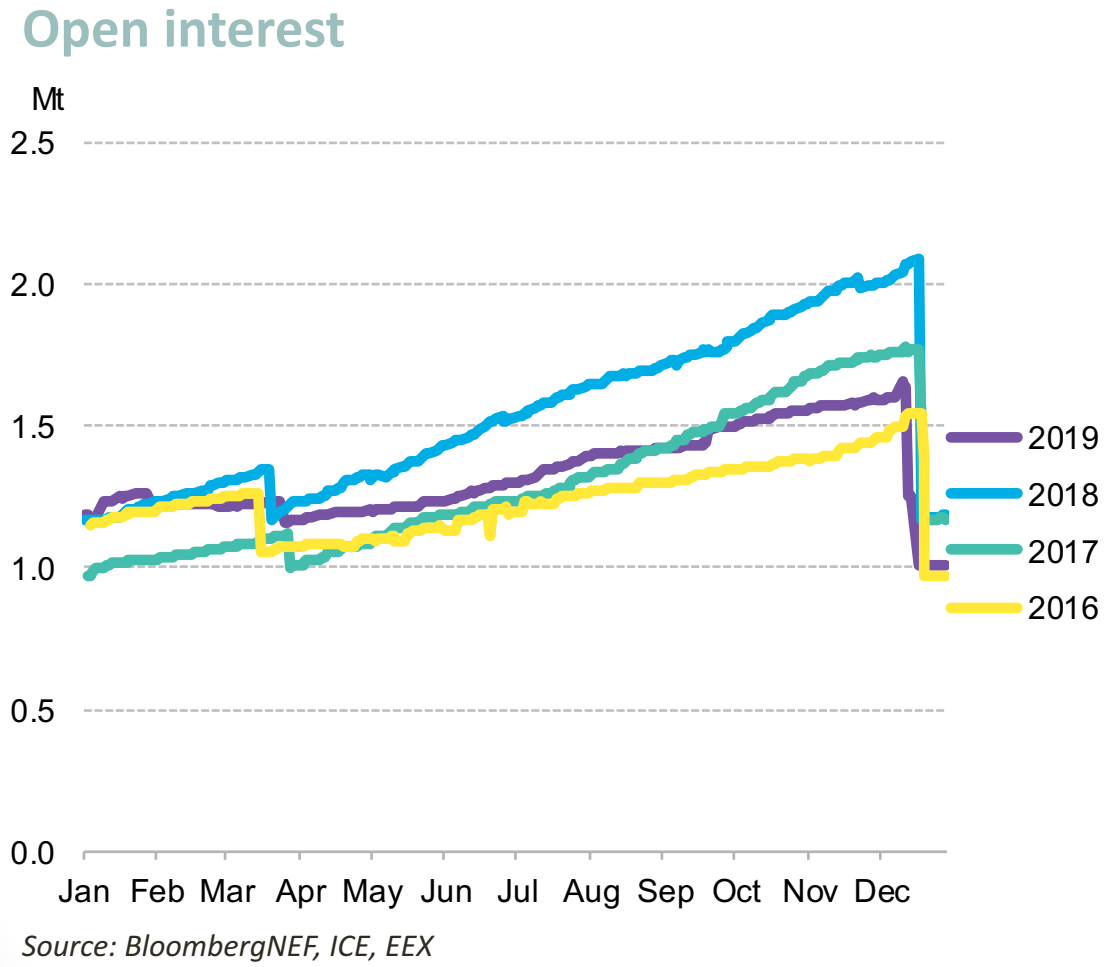
Monthly traded volumes



Source: BloombergNEF, ICE, EEX, Bluenext, Nordpool, GreenX

- Traded volume up 6% despite lower emissions and alleged exit of speculators

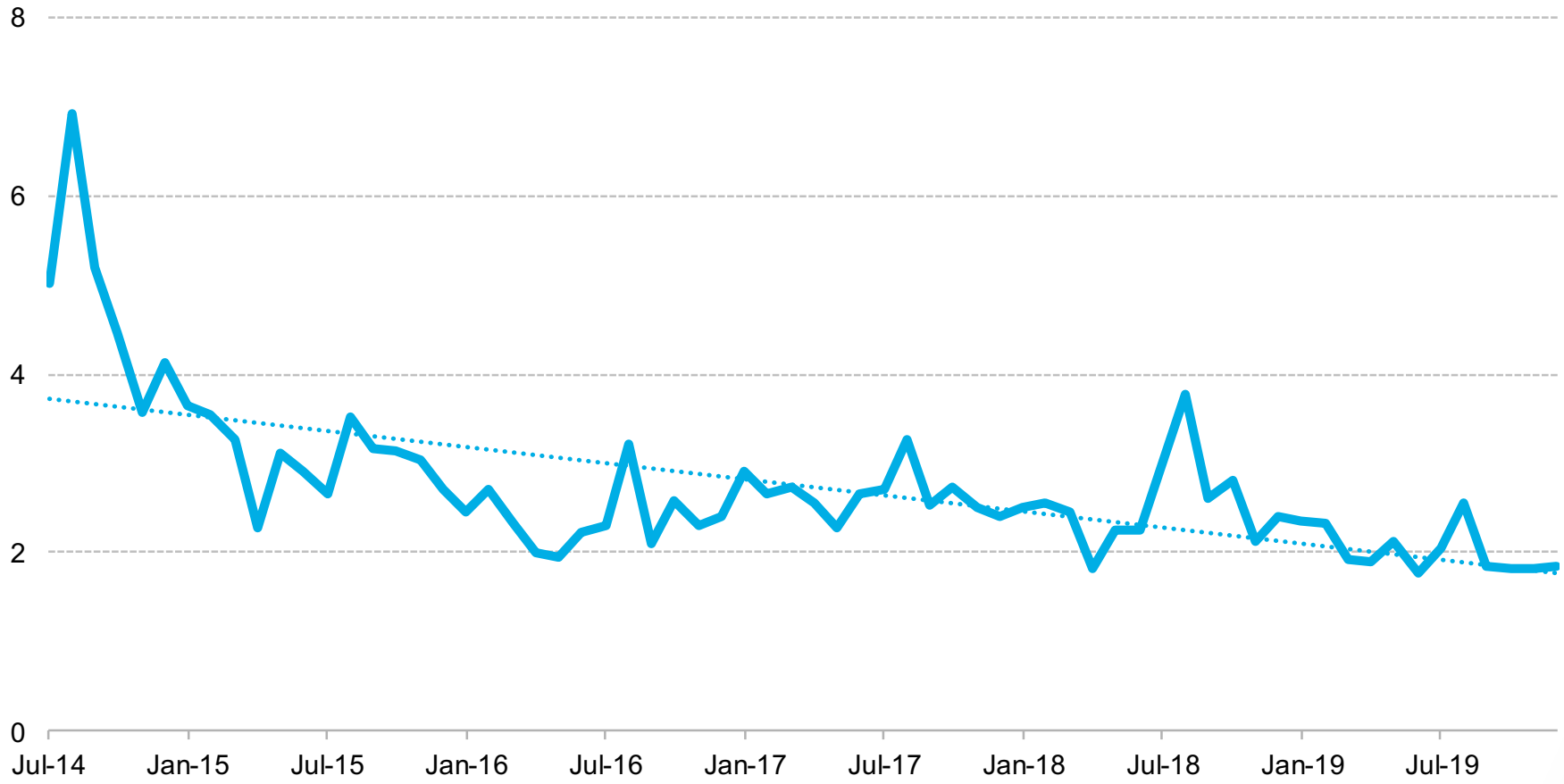
Open interest



Source: BloombergNEF, ICE, EEX

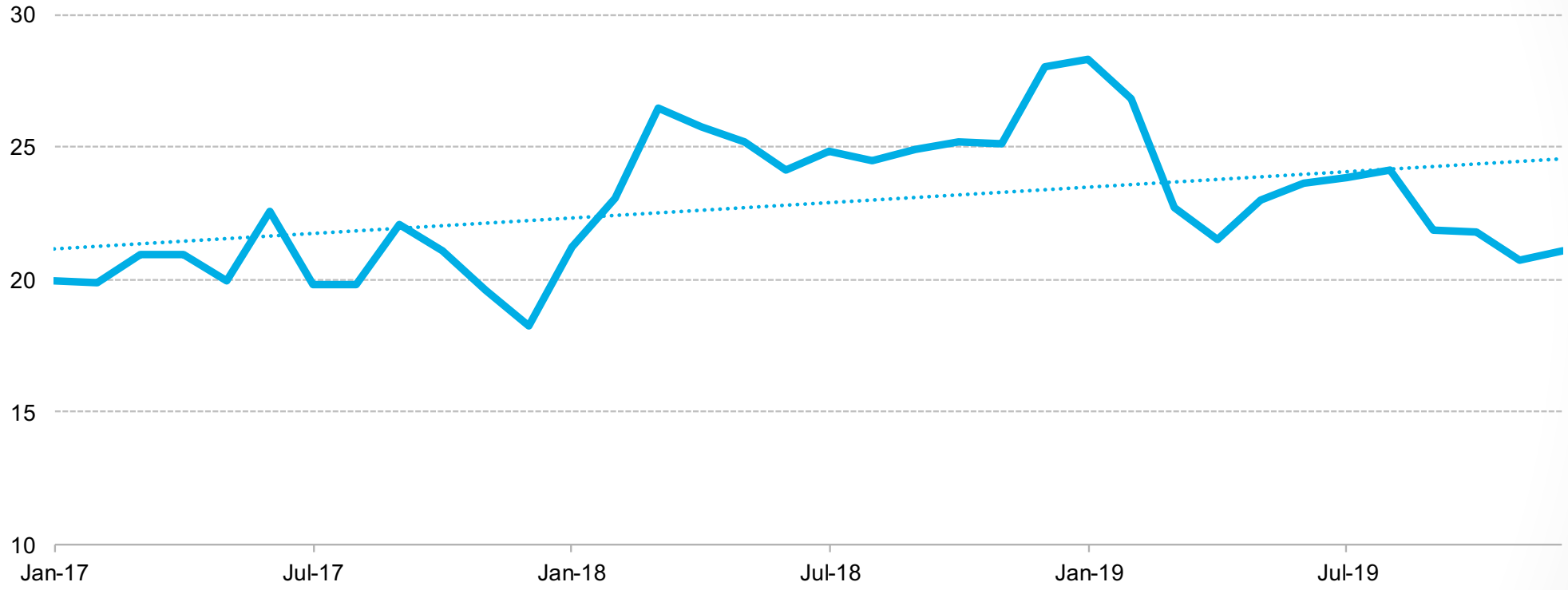
- Open interest down year-on-year despite strong start to the year.
- Utilities likely less active due to lower emissions. Allows them to roll hedges over into the future rather than entering the market
- Lower open interest combined with higher traded volume hints that speculators with a shorter time-horizon have increased while compliance market actors might have limited their buying

Auction cover ratio



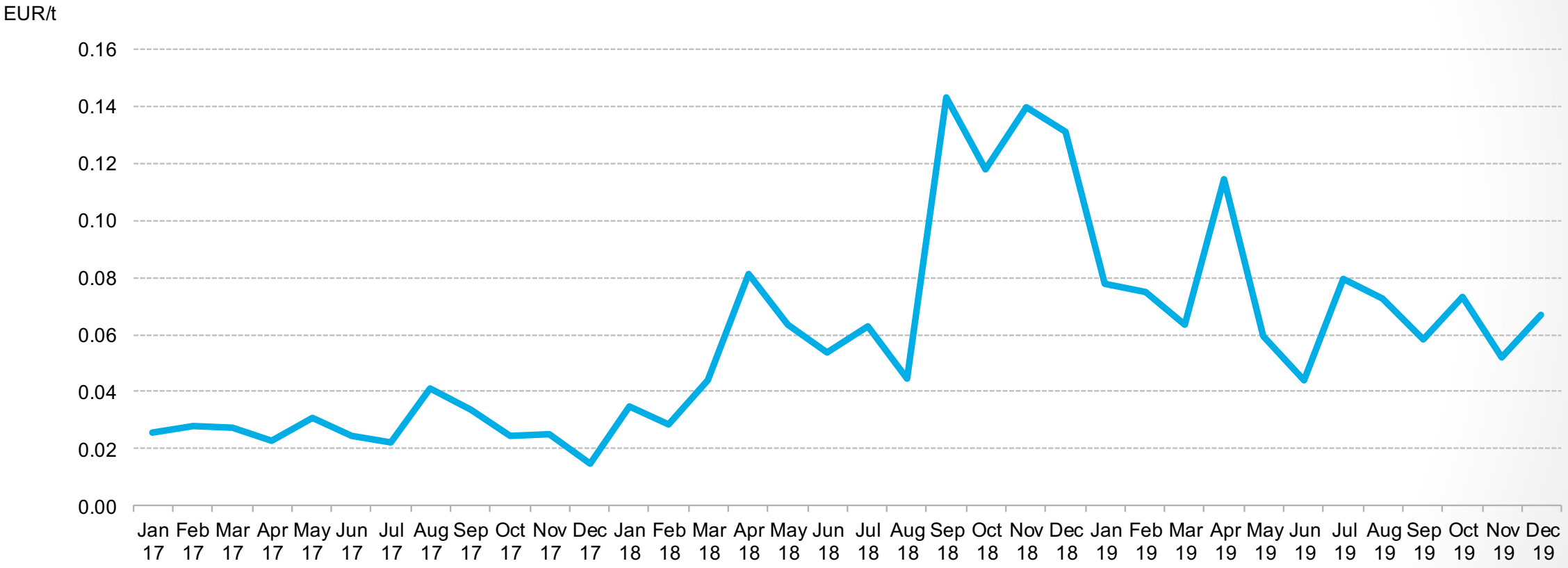
Source: BloombergNEF

Monthly average auction participation



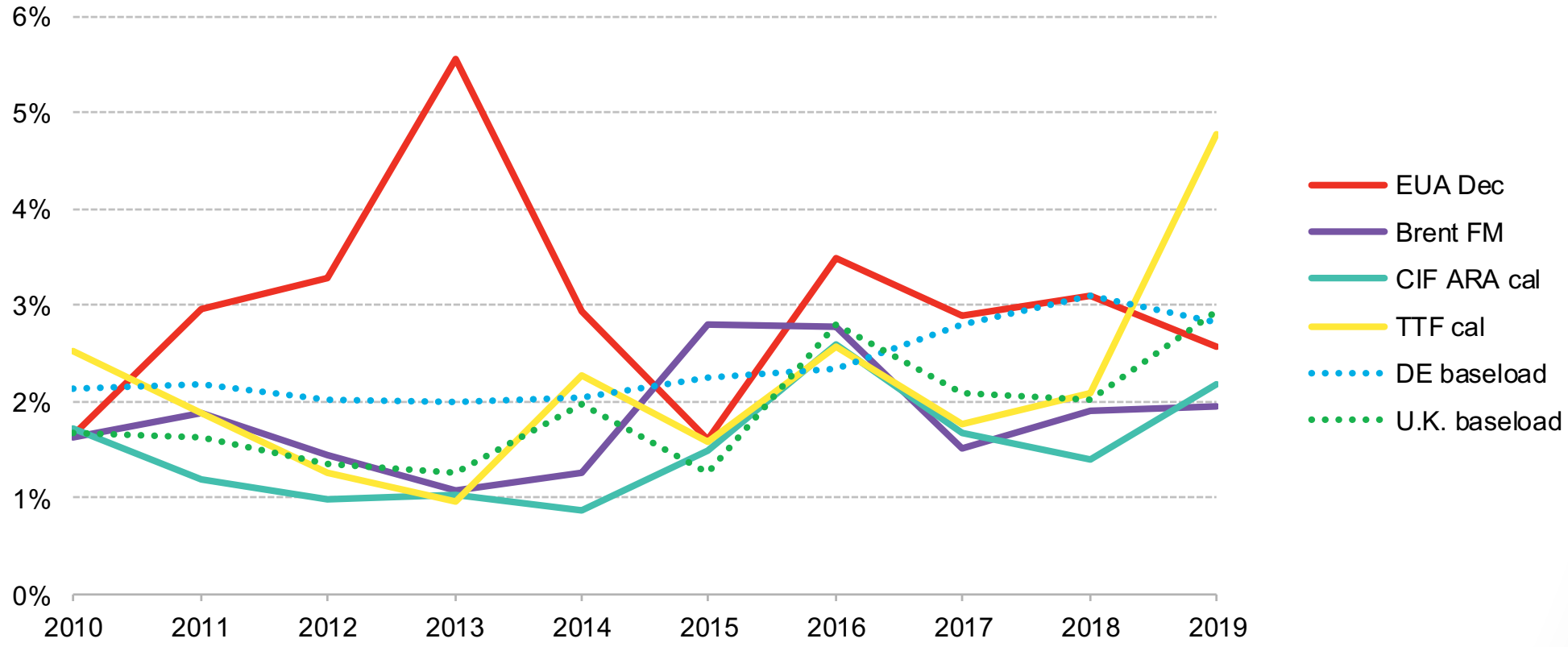
Source: EEX, BloombergNEF

Monthly average difference between auction and spot price



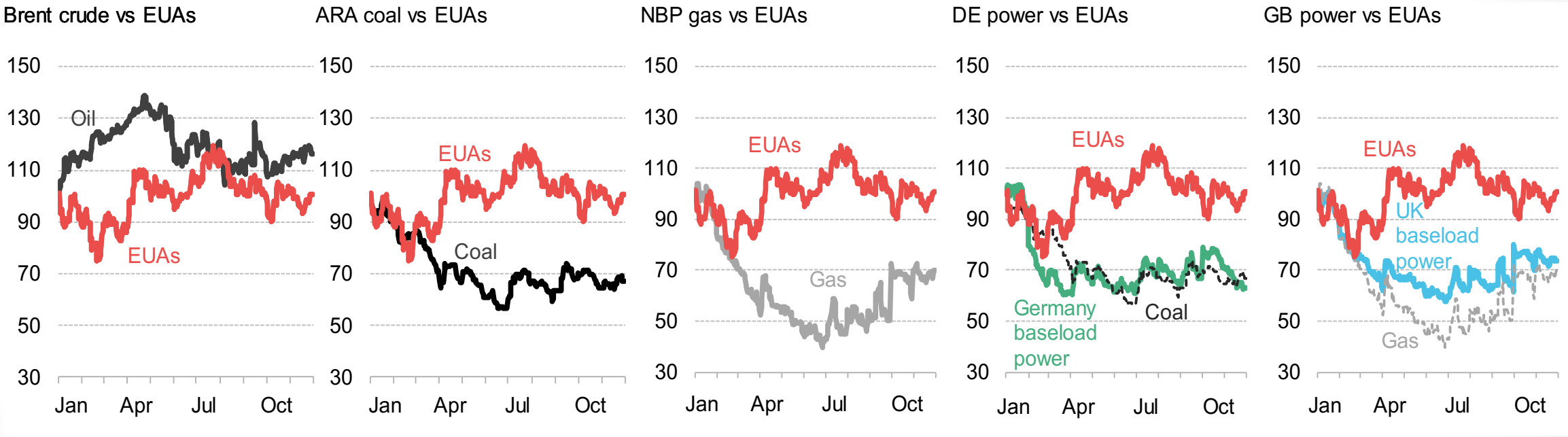
Source: EEX, ICE, BloombergNEF. Note: Negative values counted as positive to reflect change from

Day-to-day volatility



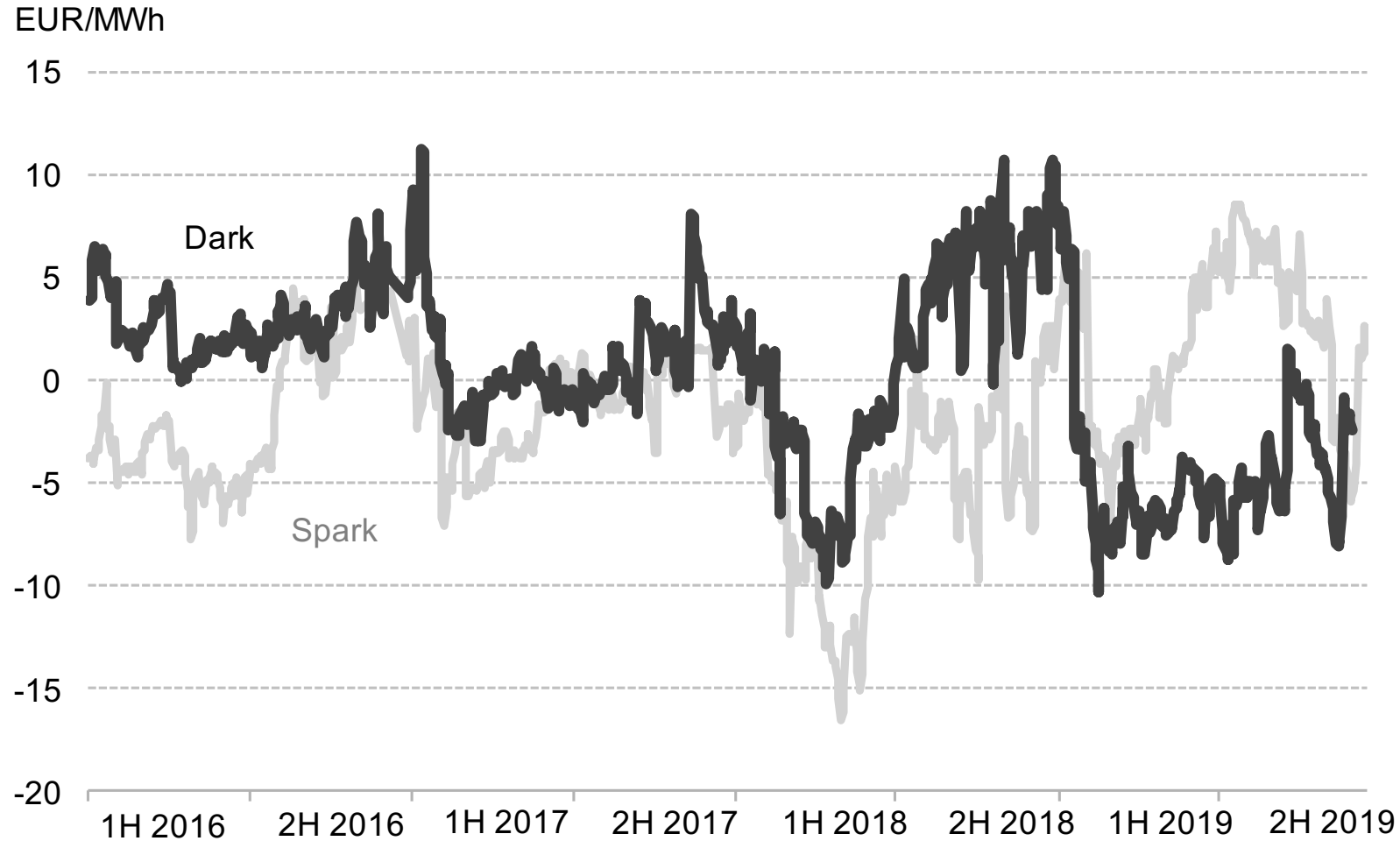
Source: BloombergNEF

EUA price trend versus key energy commodities, January 1, 2019 = 100



Source: BloombergNEF

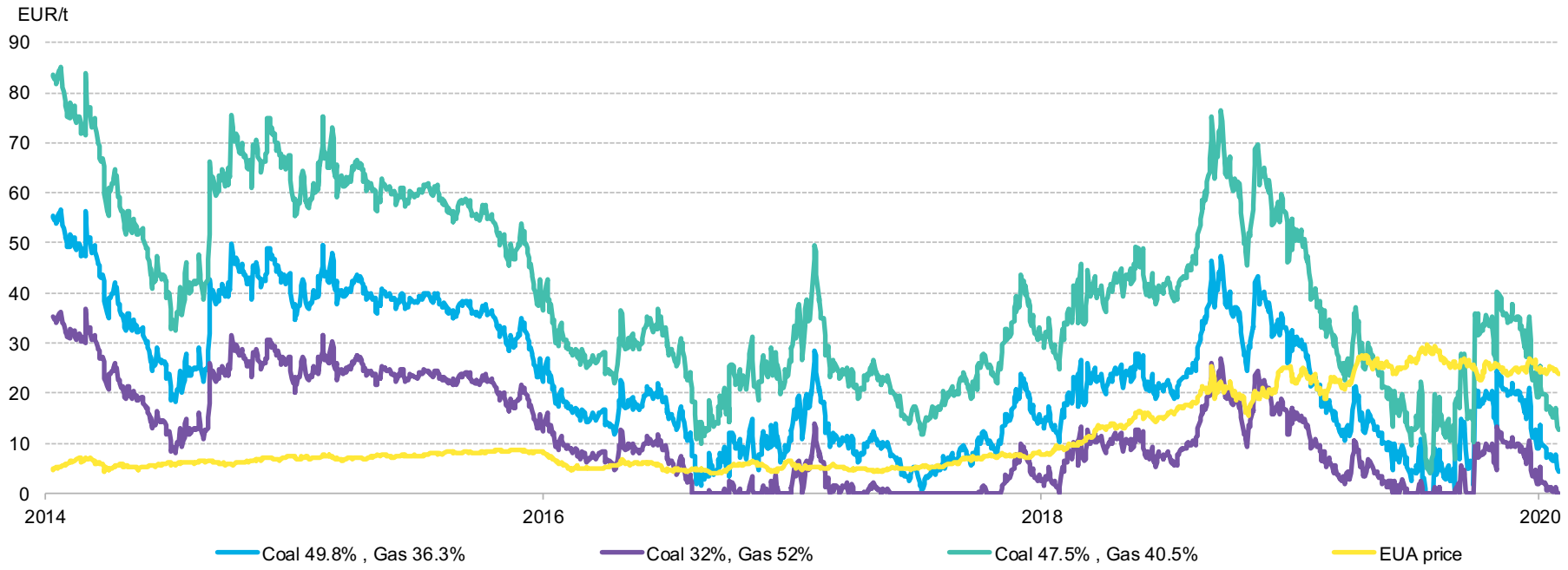
Spark and dark spreads



Source: BloombergLP, BloombergNEF

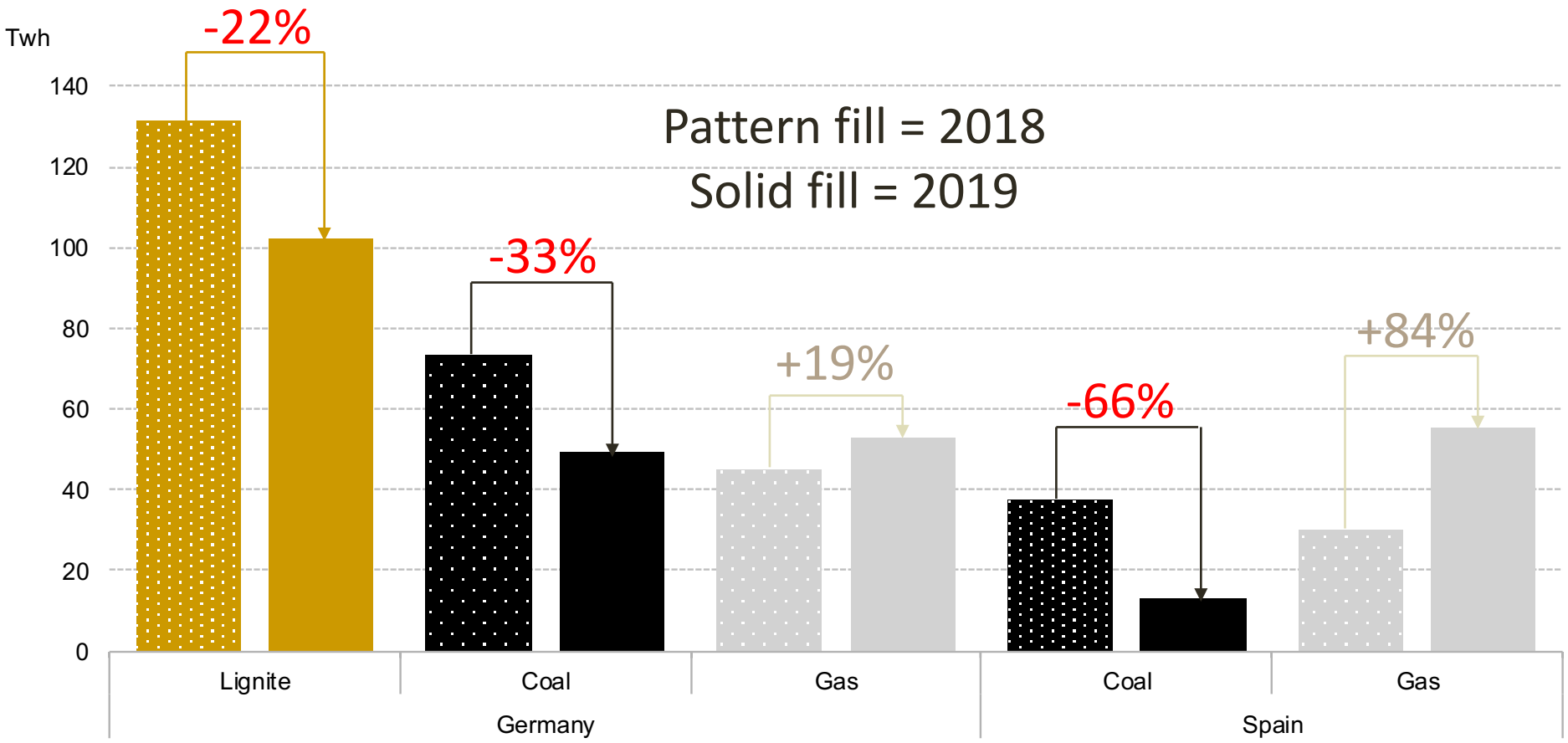
Fuel switching

Switching price at different thermal efficiencies



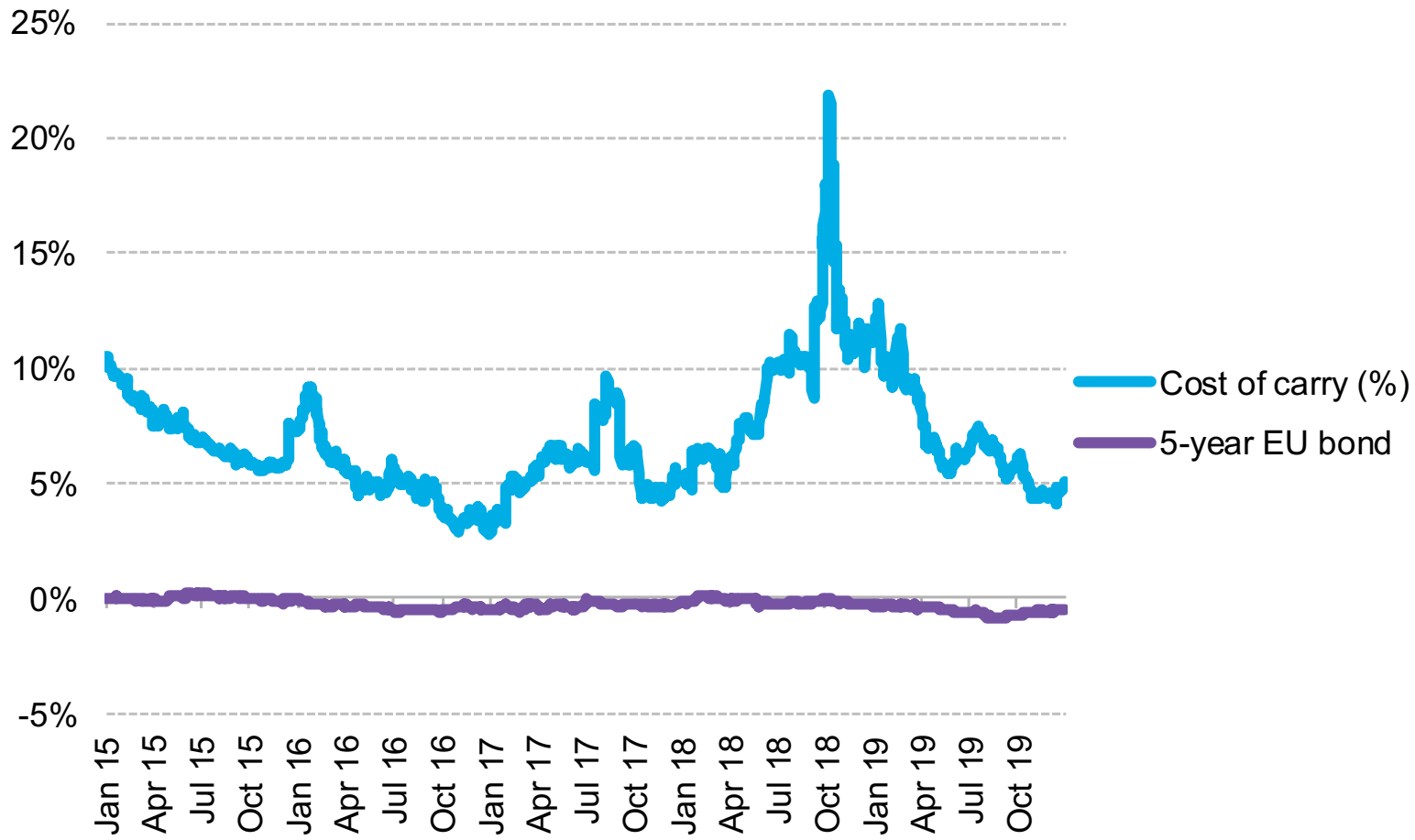
Source: BloombergLP, BloombergNEF

Evidence of fuel-switching



Source: ISE Franhaufer, REE

Cost of carry vs EU 5-year bonds



Source: ICE, BloombergLP

Indicators

Indicator	2018/2017	2019/2018
Volumes		
Open Interest		
Auction participation		
Auction coverage		
Auction vs Spot spread		
Bid-ask spread		
Cost of carry		
Volatility		

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  6. The European Green deal
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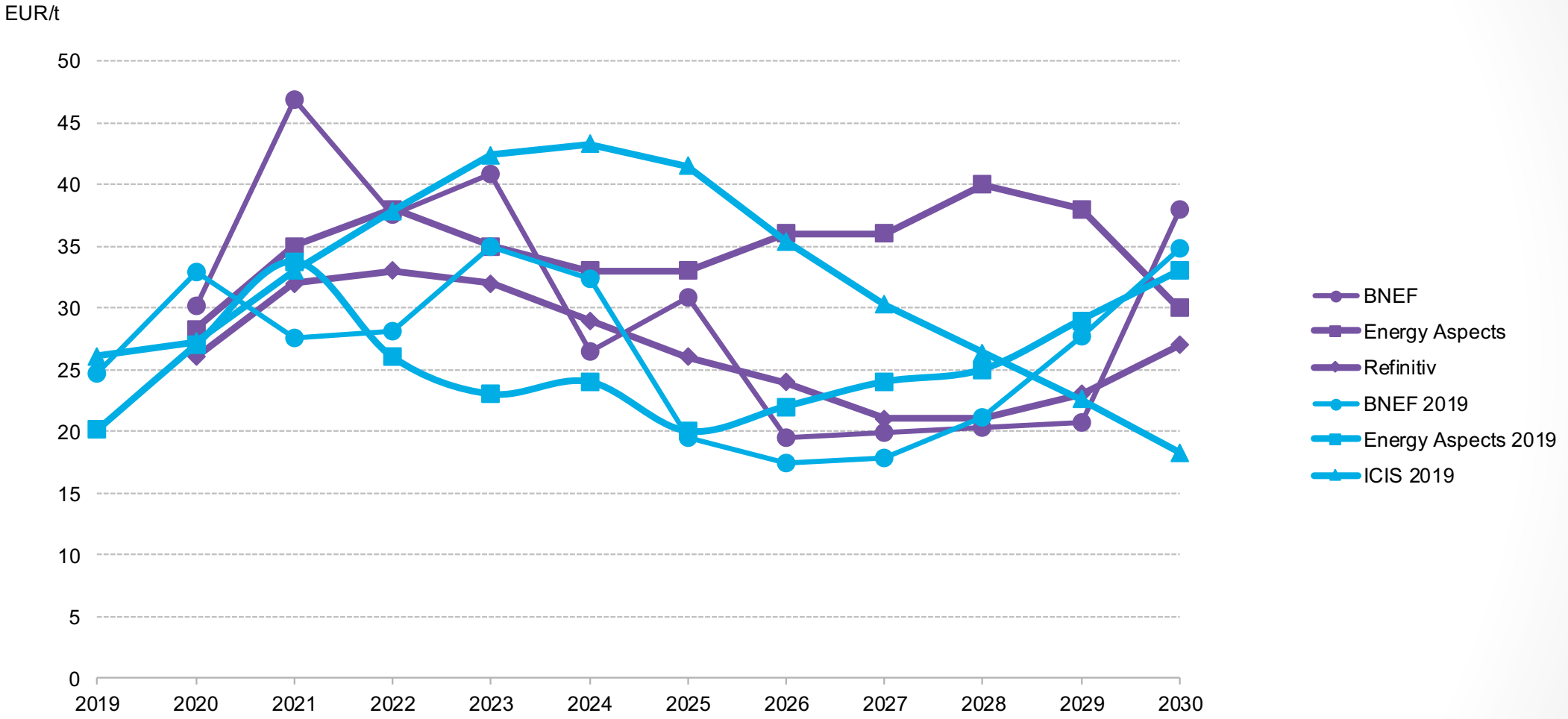
Price forecast scenarios



Source: BloombergNEF, Energy Aspects, Refinitiv, ICIS

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The European Green Deal

- The EGD can be seen as an outline of the new Commission's commitment to tackling climate and environmental-related challenges.
- It is presented as **a new growth strategy** aimed at transforming the EU's economy and listsmeasures and legislative initiatives aimed at **achieving net-zero emissions by 2050**.
- The European Green Deal can be seen as a collection of priorities, principles and areas where legislative proposals will be produced in the coming years. At this stage, it is very broad and all-encompassing, and still lacking much detail.

The European Green Deal

- **The EGD presented a package:**
  - To be implemented in pieces
  - No overall discussion
- **Three observations:**
  1. Parts may be missing
     - International cooperation
     - Market for low-carbon products
     - Incentives for removals
  2. Parts of the package may be inadequate, e.g. funding
  3. Timing
     - Addressing Paris Agreement asymmetry
     - Difficulties in reacting to many pieces

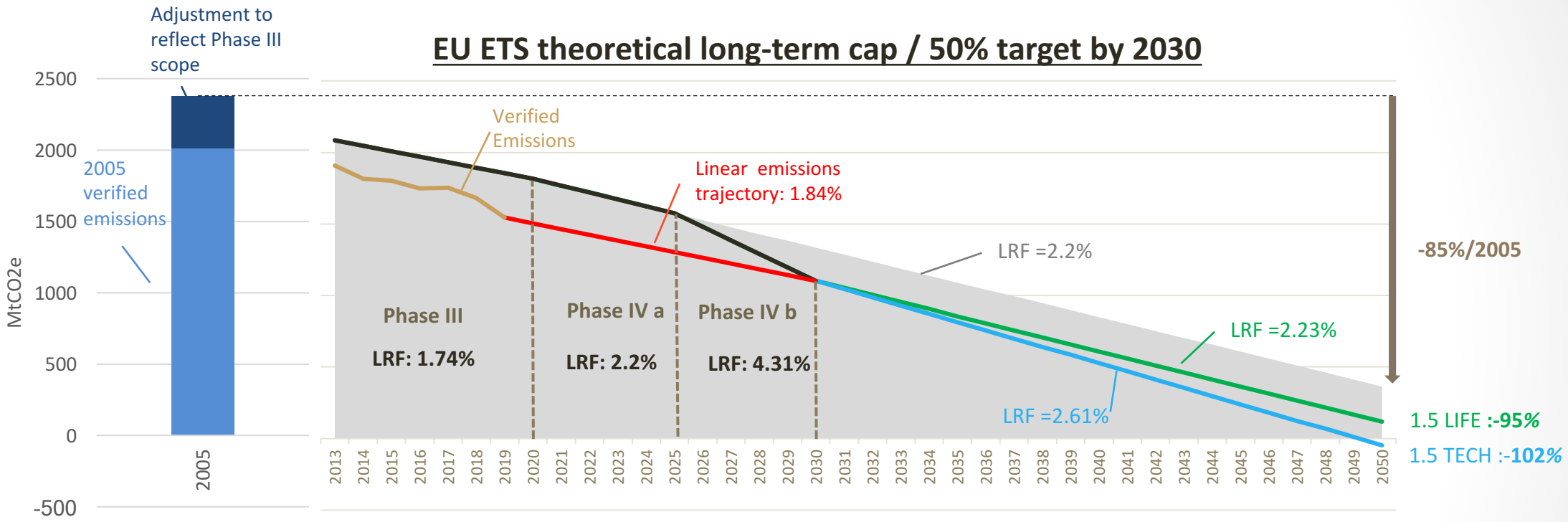
The European Green Deal

1. Increased 2030/2050 ambition – implications for the EU ETS?

- Net-zero emissions by 2050 is now the official target for the EU;
- A 50% target by 2030 is envisaged for the EU as a whole, with 55% being explored;
- **How** will this be translated in a target for the EU ETS?
  1. Effort-sharing between ETS and ESR?
- **When** will the target/LRF be revisited?
  1. At the start of Phase 4 seems unlikely, as a proposal is only expected in June 2021
     i. European Commission will have to propose **a start date** for the LRF in order to reach the updated 2030 target
  2. How long will it take to reach an agreement? – last revision took 2.5 years of negotiations. This will have to be taken into account by the Commission in its proposal:
  3. For simplicity reasons: new LRF to start in second half of Phase 4 (2026)

The European Green Deal

1. Increased 2030 /2050ambition – implications for the EU ETS?

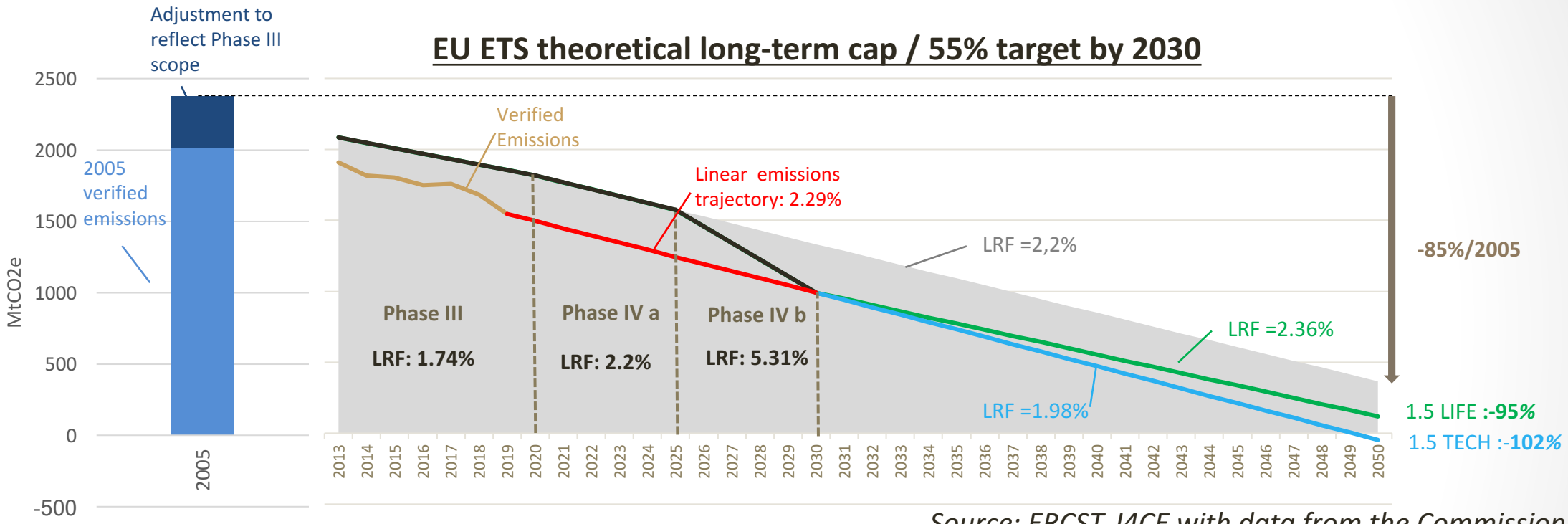


Source: ERCST, with data from the Commission

- 50% target by 2030 with an enhances LRF to start in 2026

The European Green Deal

1. Increased 2030/2050 ambition – implications for the EU ETS?



Source: ERCST, I4CE with data from the Commission

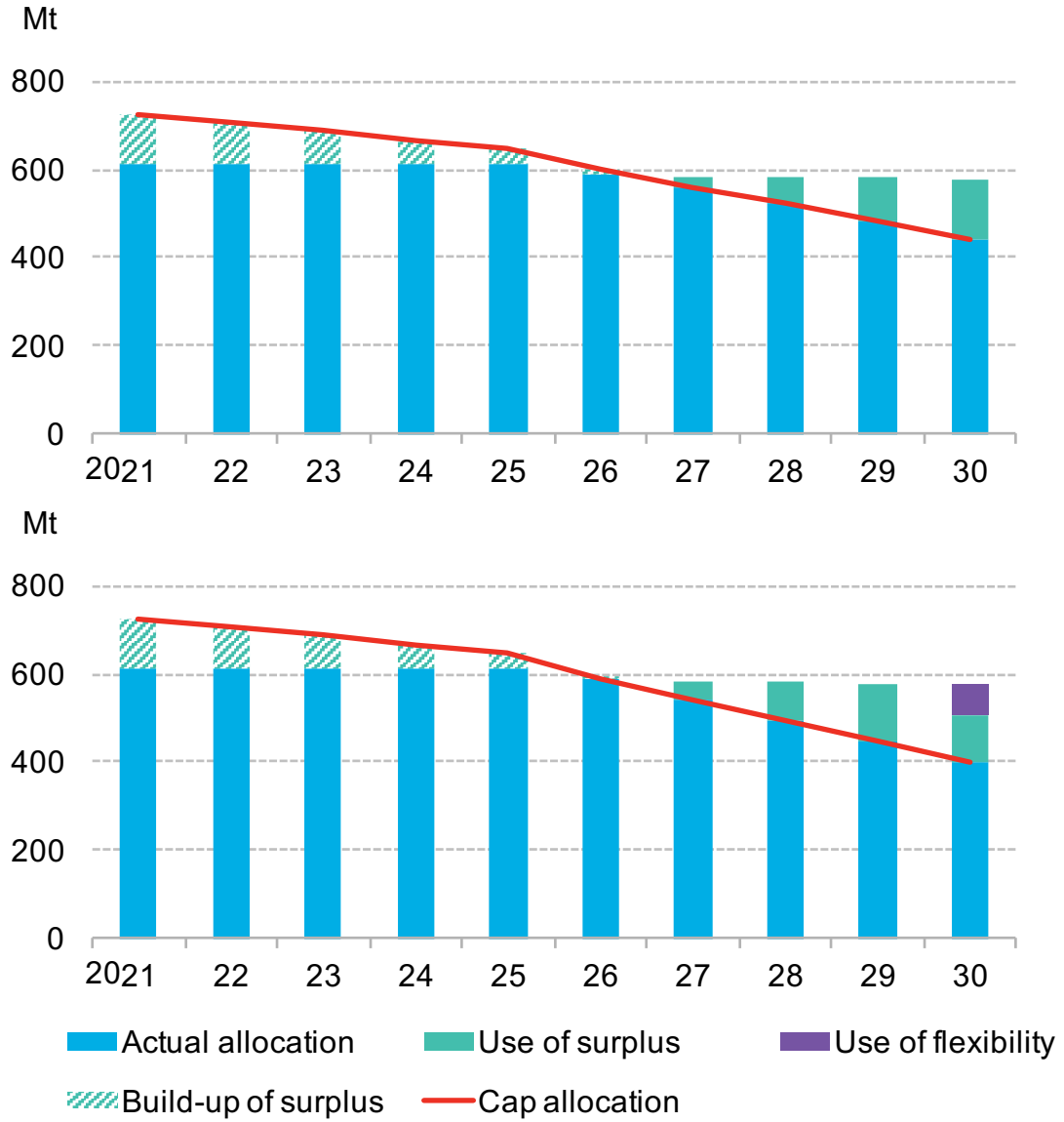
- 55% target by 2030 with an enhances LRF to start in 2026

The European Green Deal

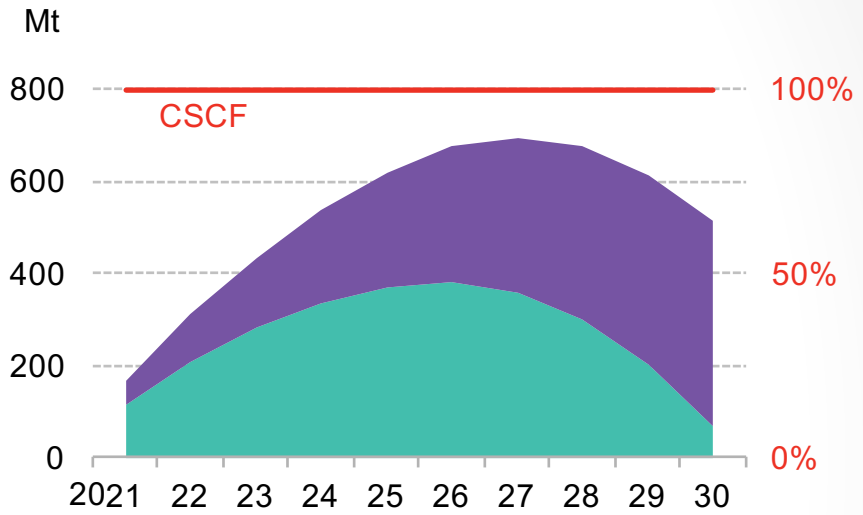
1. Increased 2030 ambition – implications for the EU ETS?

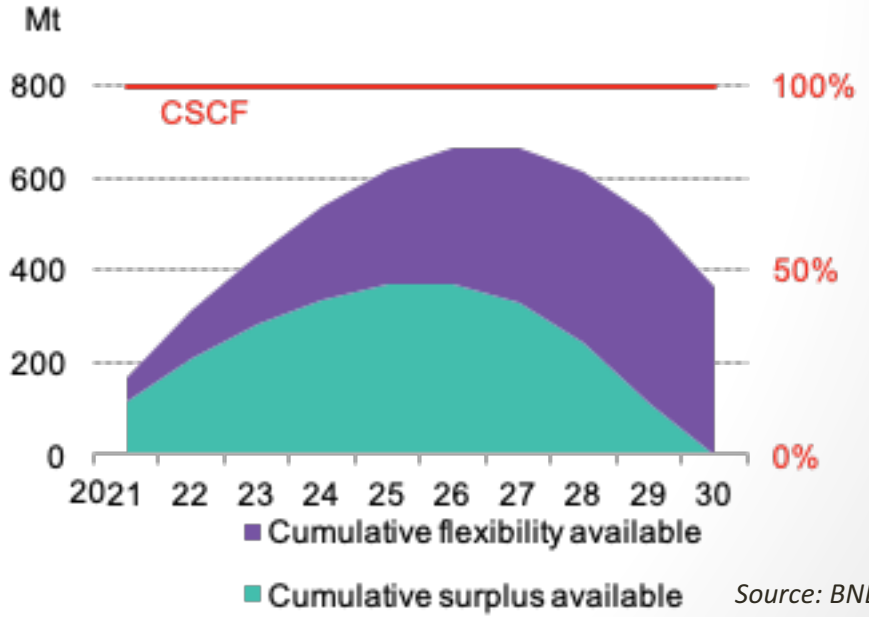
”Conservative” demand scenario for free allocation

50% target by 2030



55% target by 2030





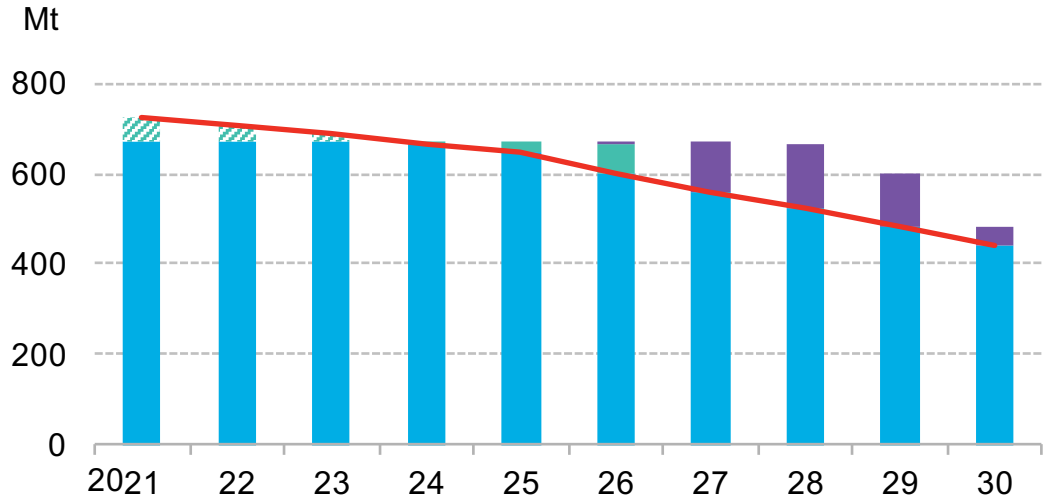
Source: BNEF

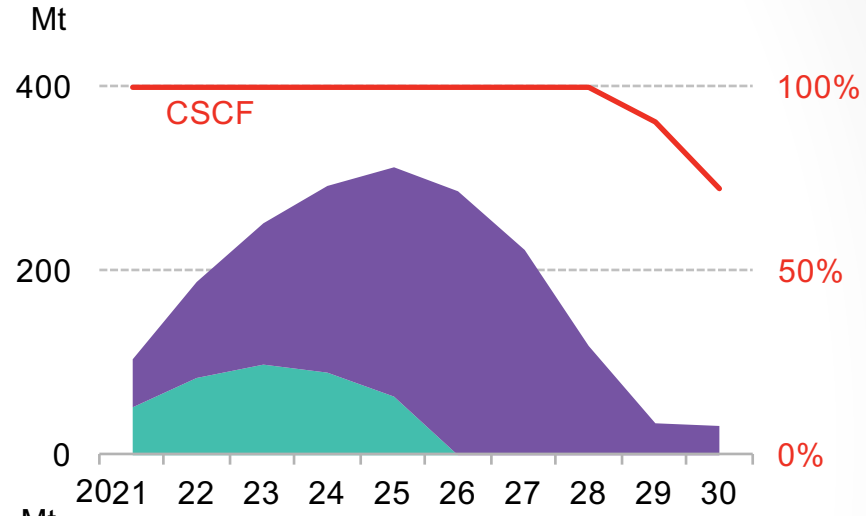
The European Green Deal

1. Increased 2030 ambition – implications for the EU ETS?

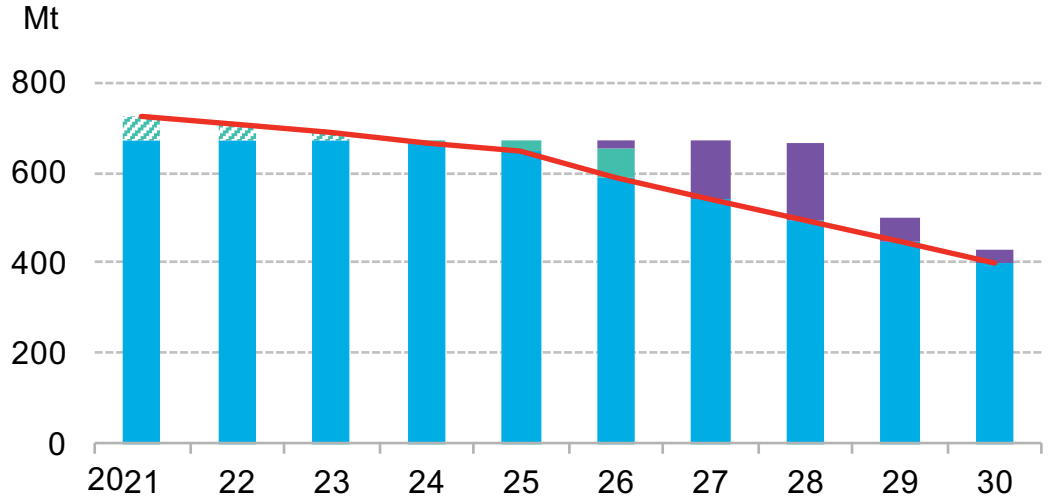
”High” demand scenario for free allocation

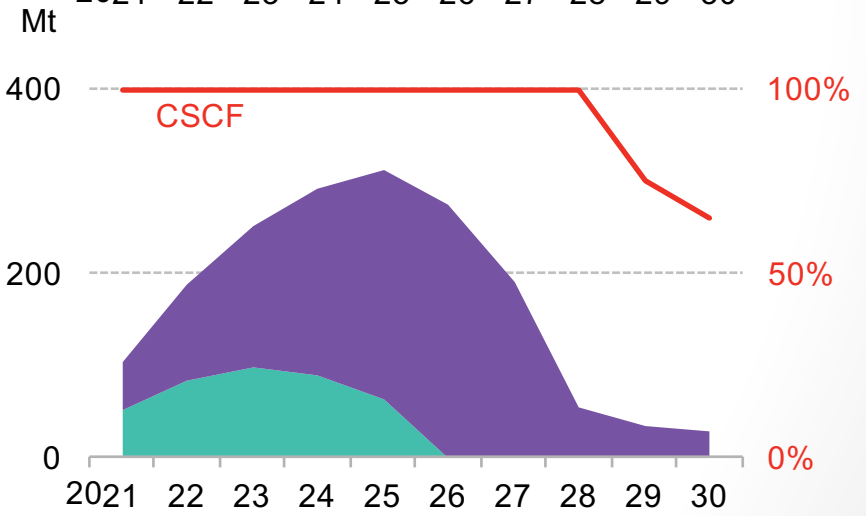
50% target by 2030





55% target by 2030





Actual allocation
Use of surplus
Use of flexibility
Build-up of surplus
Cap allocation
Cumulative flexibility available
Cumulative surplus available

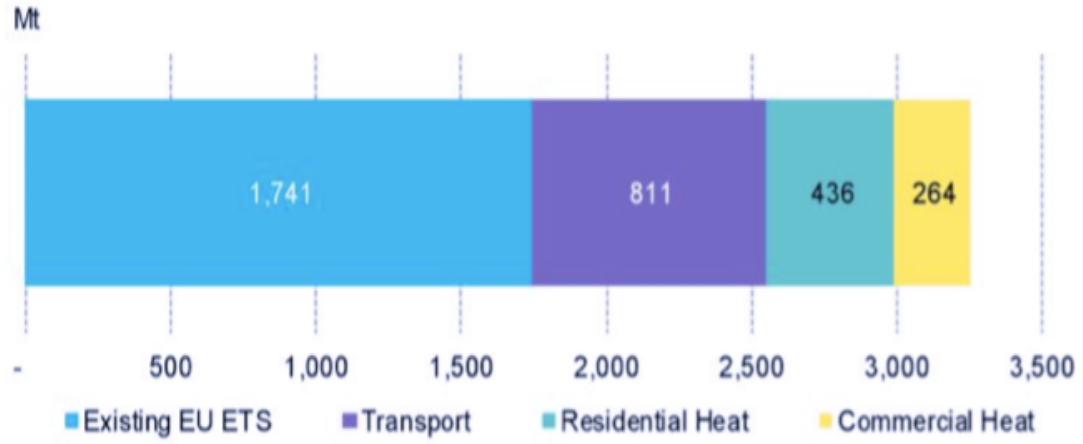
Source: BNEF

The European Green Deal

2. ETS Scope increase?

- EGD opens the door for inclusion of a number of sectors:
  1. Shipping/international aviation
  2. Road transport/buildings
- Inclusion of maritime shipping seems increasingly likely → how will it be included in the ETS? Similar to aviation?

Figure 6: Effect of adding EU-wide heat and transport to current EU ETS (MtCO2)



Source: EU Commission, BloombergNEF

The European Green Deal

3. BCA?

- EGD sets out the aim of the commission to propose a BCA
- Still little details known, but it is sure that developing this will take some years.
- It would likely start with a number of selected (1/2/3?) sectors and be gradually extended, and it will be an *alternative to Free Allocation*.
  1. Note: a side-effect of the introduction of a BCA as an alternative to free allocation would lower the risk of the CSCF being triggered.

The European Green Deal

4. Use of revenues?

- EC proposed to allocate 20% of auctioning revenues to its own budget in the European Green Deal;
- Council draft conclusions of 14 Feb 2020 included a proposal to have a new source of 'own revenues': any revenues generated by the EU ETS exceeding the average annual revenue *per* Member State generated by allowances auctioned over the period 2016-2018 → significantly more than 20%
- EGD also includes wording on increasing the amount of EUAs available for the Innovation Fund + Modernisation Fund
    1. Note: regardless of an increase in the amount of EUAs, the size of these funds is expected to increase as prices are expected to rise in a 50/55% scenario

The European Green Deal

5. Review and role of the MSR?

- Implementation of the EGD could simultaneously decrease *(tighter cap)* and increase *(additional overlapping policies)* the risk of oversupply in the market;
- The review of the MSR is scheduled in 2021, and will take place before the EU ETS directive will be revisited *(EC proposal only expected by the summer of 2021).*
- How is one to review the MSR parameters when many of the EU ETS parameters can be expected to change?
- **Will the 2021 MSR review become an "empty shell"?**

The European Green Deal – Post-2030

- **What role will the EU ETS still play after 2030?** Will there still be enough liquidity for proper market functioning? *Expanding the scope of ETS could be one way of ensuring sufficient liquidity.*
- **Incentivising negative emission technologies** – not much wording on this in the EGD but it is an issue that is becoming increasingly important, and is increasingly being discussed in the EU – what role can the EU ETS play?
- In a world where the EU has increasingly higher ambition levels, and a world where BCAs get introduced, assessing and comparing climate efforts by other countries is becoming increasingly important → **effective operationalisation of Article 30 of the directive**?
- Increase flexibility / cost-efficiency – revisit the possibility to use credits generated by EU domestic projects and/or international projects (link to Article 6 of PA)

State of the EU ETS 2020– Outline

- Seven Chapters
  1. Introduction – EU ETS fit for purpose
  2. Changes in regulatory environment
  3. Environmental delivery
  4. Economic efficiency
  5. Market functioning
  6. The European Green deal
  7. **Issues to monitor in the future**

EU ETS policy issues to monitor in 2020 and beyond

The EU Green Deal

- Proposal on a European 'Climate Law' enshrining the 2050 climate neutrality objective – March 2020
- Proposal for a carbon border adjustment mechanism for selected sectors – 2021
- Review the EU climate 2030 target by September 2020
- Assessment by September 2021 on how the EU legislation implementing the EU's 2030 target would need to be amended in order to enable the achievement of 50 to 55 % GHG emission reductions compared to 1990 and to achieve the climate-neutrality-objective : RES and EE directive, maritime transport strategy but also the Just Transition Fund, etc…

EU ETS

- Benchmark value updates
- EU ETS State Aids guidelines
- Preparation of the MSR review for 2021
- Innovation and modernization funds
- Just transition

Climate-neutrality objective

- EU strategy to enhance carbon removals by natural or other sinks : forests, soils, agricultural lands and wetlands, carbon removal technologies : CCS, CSU ?
- Prospective : exploring the role of using domestic offsets through operationalising Article 24a of the EU ETS ;

International level :

- CORSIA decision in March 2020 and its implication on the EU ETS
- China-EU summit in September 2020 and its implication on the carbon border tax adjustment.
- COP26 in December 2020 and its implication on the EU climate ambition and the article 6.