Where next for the ETS?

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KEY QUESTIONS

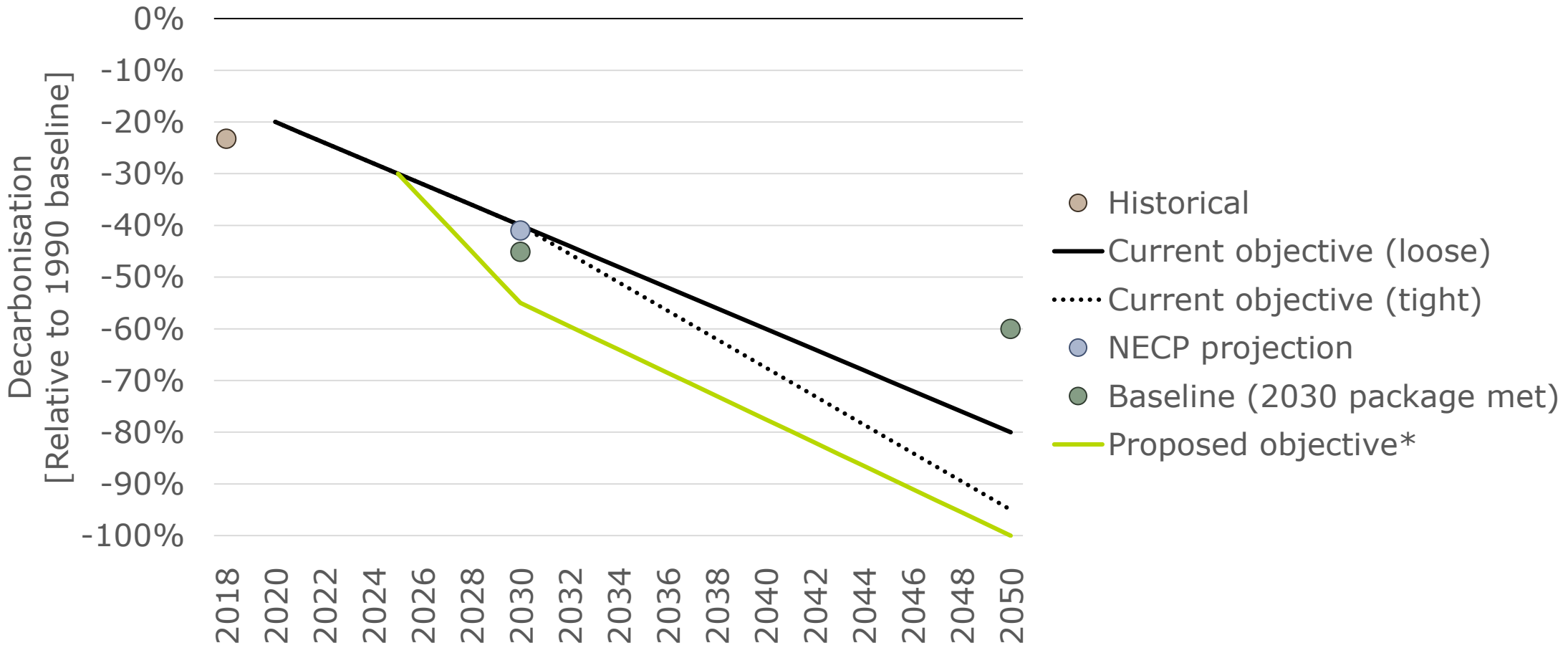
The Commission has left plenty of detail to be explored further

- How will the increased ambition affect emissions across the energy sector?
- What will be the role of the EU Emissions Trading Scheme (ETS) in delivering the 55% target?
- What factors will influence the decision whether to extend the scope of the ETS to cover new sectors?
- What will the future cap look like and what will the impact on future prices be?

Agenda

1. Background
2. Scenario overview
3. Scenario analysis
4. Conclusion

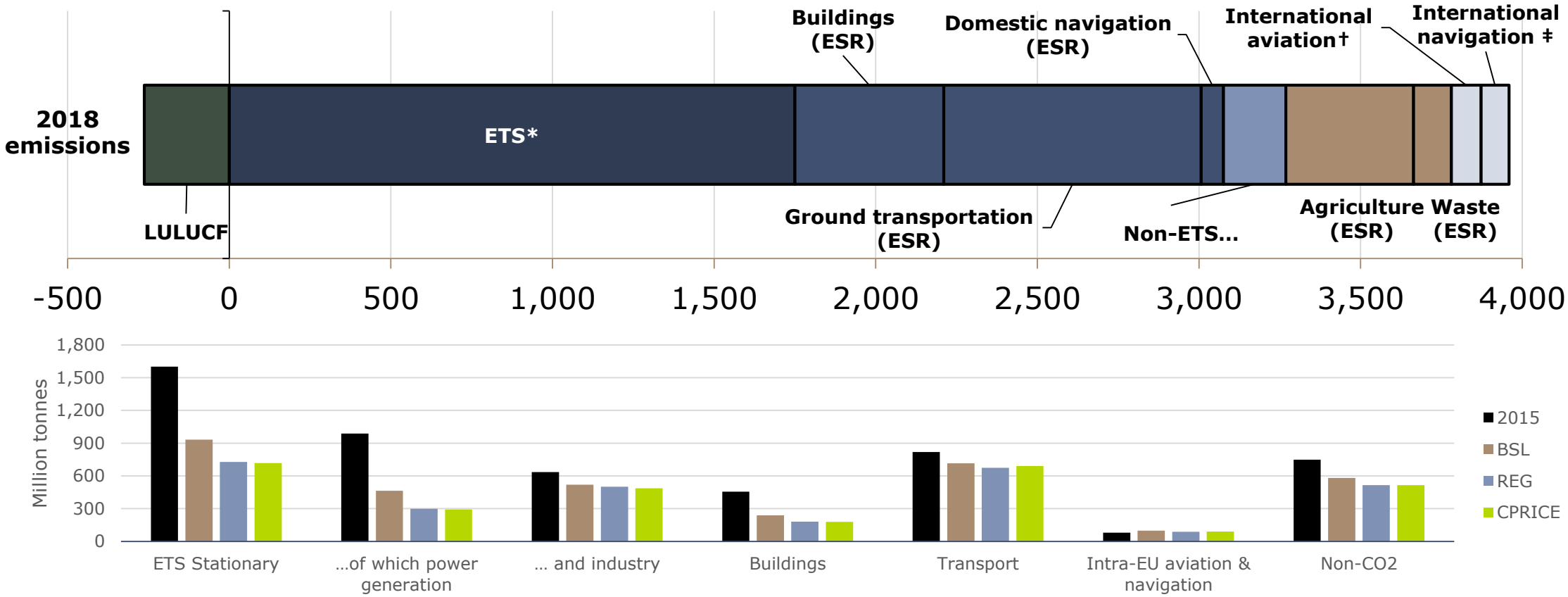
The EU must raise its 2030 climate target to avoid delays in its transition towards climate neutrality by 2050



* Includes contributions from carbon sinks under LULUCF pillar. (Without them, the 2030 target would be -50.4%, while the 2050 one would be comparable to the tight end of the current objective.) Source: EEA (AFRY calculations).

BACKGROUND

New scenarios from the European Commission explore if it makes sense to integrate buildings and transportation into the ETS pillar



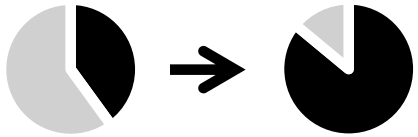
ETS contains intra-EU aviation. †International aviation excludes intra-EU aviation. ‡International navigation excludes intra-EU navigation, which has been assigned to domestic navigation. ※ Includes small-scale electricity generation, heat production and industry, as well as fugitive emissions, energy use in agriculture, etc.
Source: EEA, EUTL (AFRY calculations).

BACKGROUND

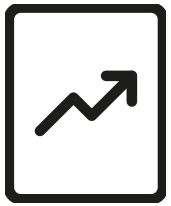
Stricter ambition raises questions about what policy design ensures the smoothest transition

AFRY WHITE PAPER

ETS scope



Market stability



Competitiveness

EUROPEAN COMMISSION PROPOSAL


EUROPEAN COMMISSION

Brussels, 17.9.2020
SWD(2020) 176 final

PART 1/2

COMMISSION STAFF WORKING DOCUMENT

IMPACT ASSESSMENT

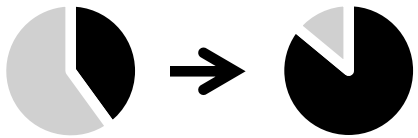
Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

Stepping up Europe's 2030 climate ambition

Investing in a climate-neutral future for the benefit of our people

{COM(2020) 562 final} - {SEC(2020) 301 final} - {SWD(2020) 177 final} - {SWD(2020) 178 final}



AFRY White paper

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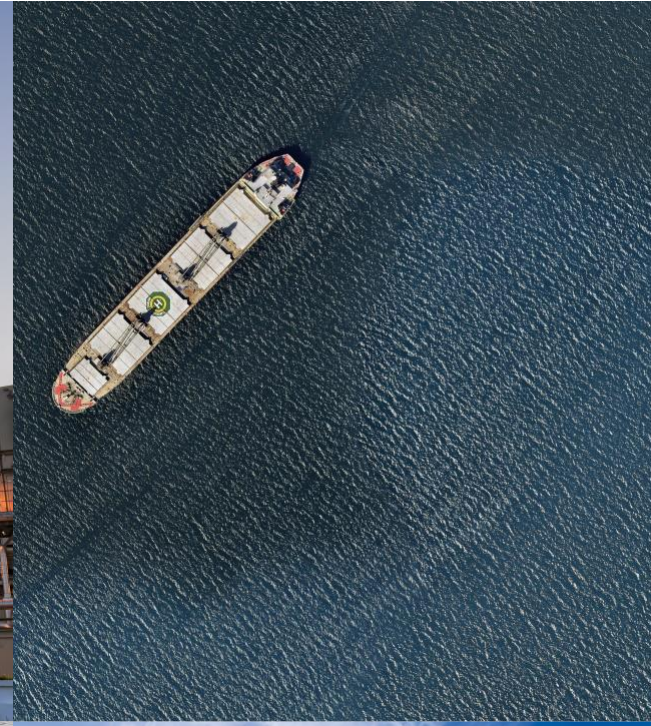
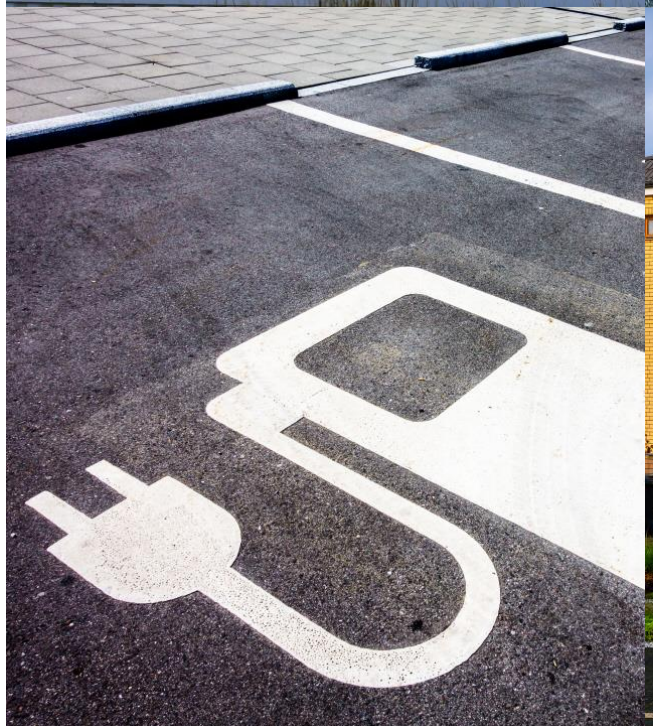
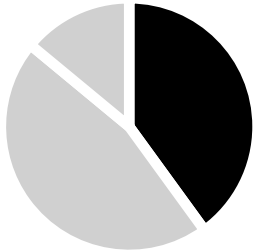




SCENARIO OVERVIEW

There are several options that carbon pricing could apply to the new sectors under discussion

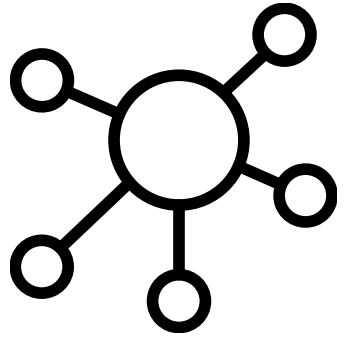
	BAU ambition, same scope		Higher ambition, same scope			Higher ambition, scope change	
							
Baseline scenario	ETS	ETS	ETS	ESR	**Not regulated**	ESR	ESR
Regulatory approaches	ETS	ETS	**Virtual allowances**	**Virtual allowances**	**Virtual allowances**	**ESR + OTH**	**ESR + OTH**
Carbon pricing	ETS	ETS	**Virtual allowances**	**Virtual allowances**	**Virtual allowances**	ETS	ETS

The future boundary between the ETS and ESR pillars will reflect trade-offs across several criteria

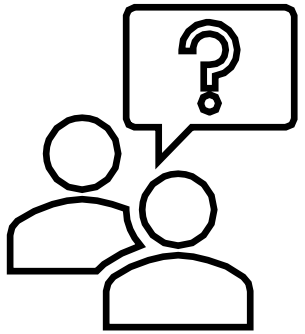
PROS & CONS

- A single deep carbon market can activate the cheapest abatement options more efficiently than disparate instruments split across countries and sectors, potentially rendering multiple overlapping policy instruments unnecessary.
- However, even though energy efficiency is touted as a cheap abatement opportunity, explicit instruments are necessary to overcome market failures that prevent its diffusion.
- Policymaking must identify not only the actors that represent the ideal point of regulation, but also consider how they interact with other actors around them.
- The experience of jurisdictions like Québec, California and New Zealand show that fuels can be integrated into ETSs, and the Commission has explored qualitatively some possible European approaches to address potential problems.

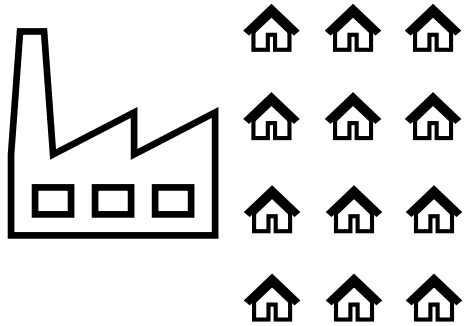
Economic efficiency



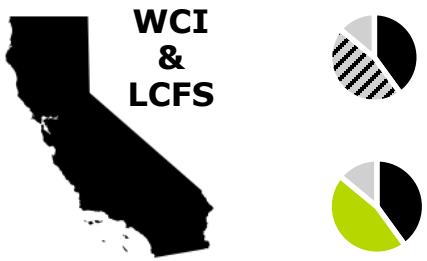
Non-economic barriers



Regulatory efficiency

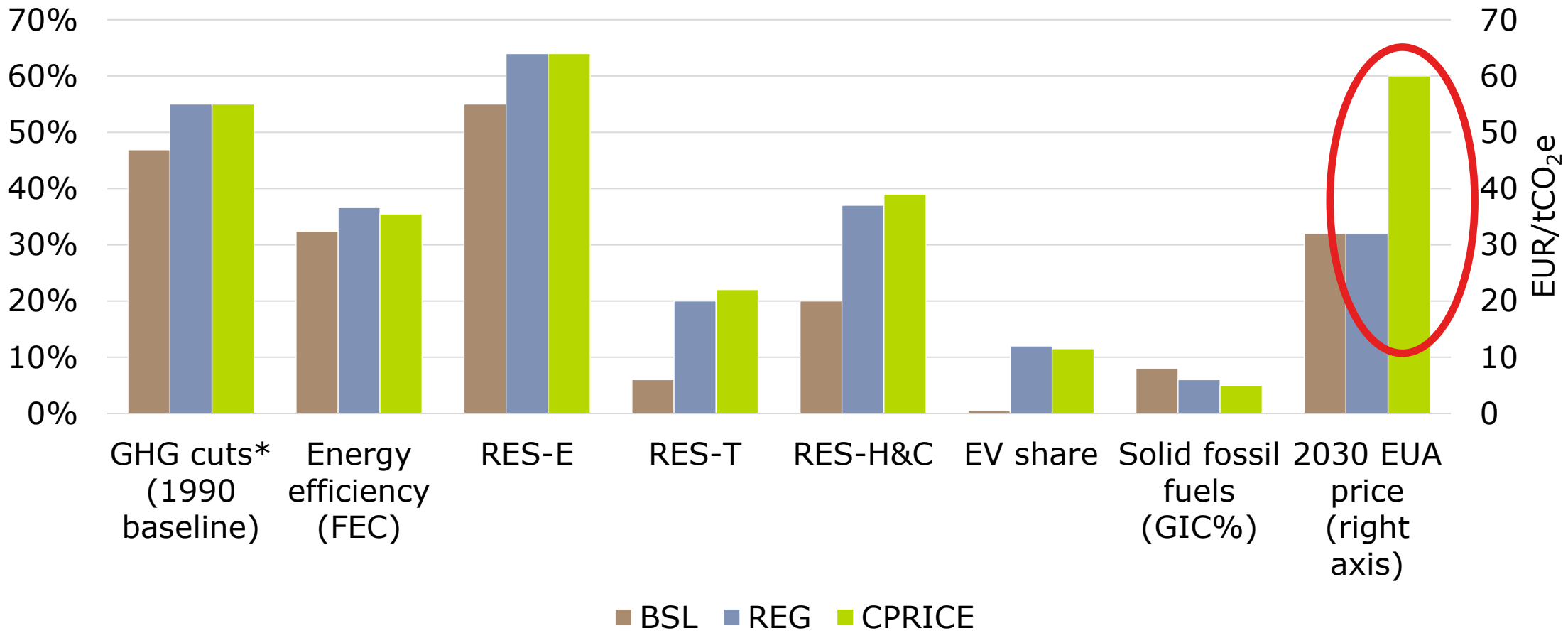


Problem solving



SCENARIO OVERVIEW*

The Commission scenarios differ more than anything by the relative weight accorded to uniform carbon pricing



Several scenarios (Mix, Mix50, Mix-nonCO2, ALLBNK) and COVID sensitivity not represented.
Source: SWD(2020) 176 final.

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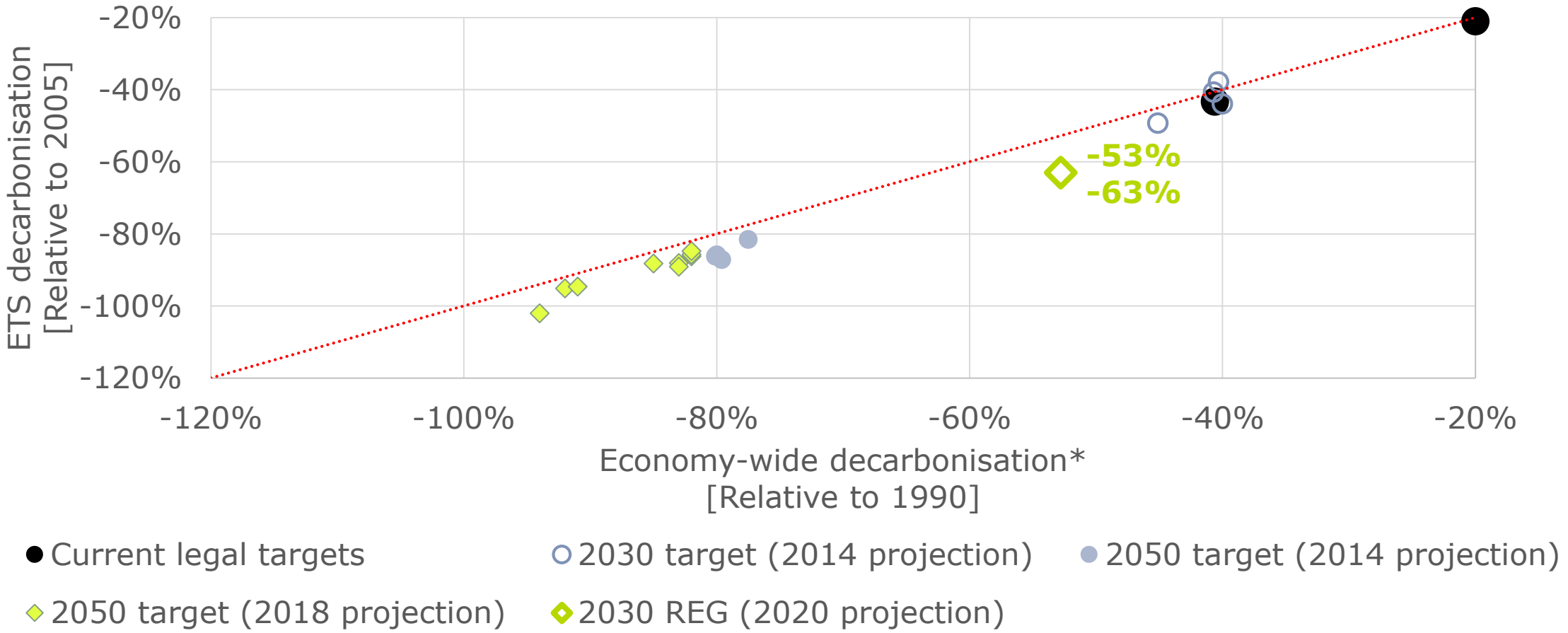
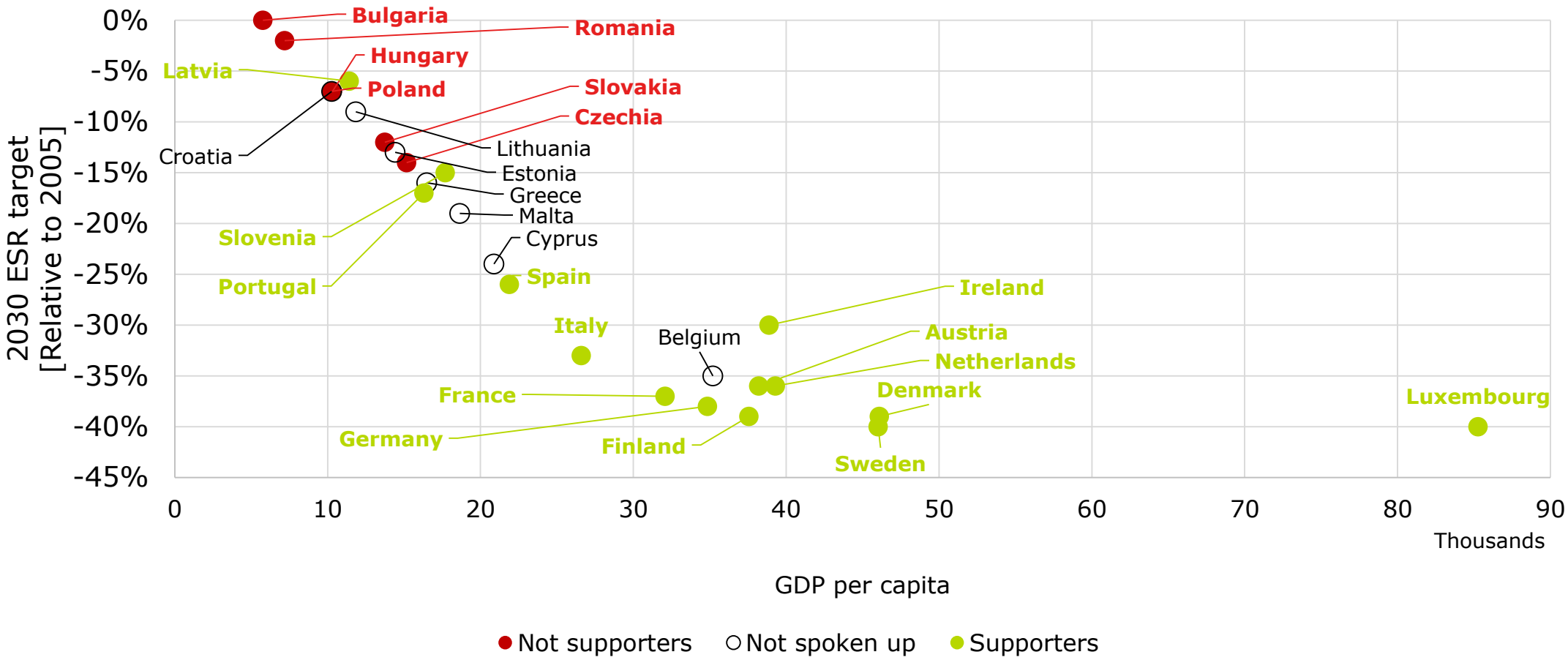
On this occasion the relative burden for the ETS would be much higher than under previous ambition revisions



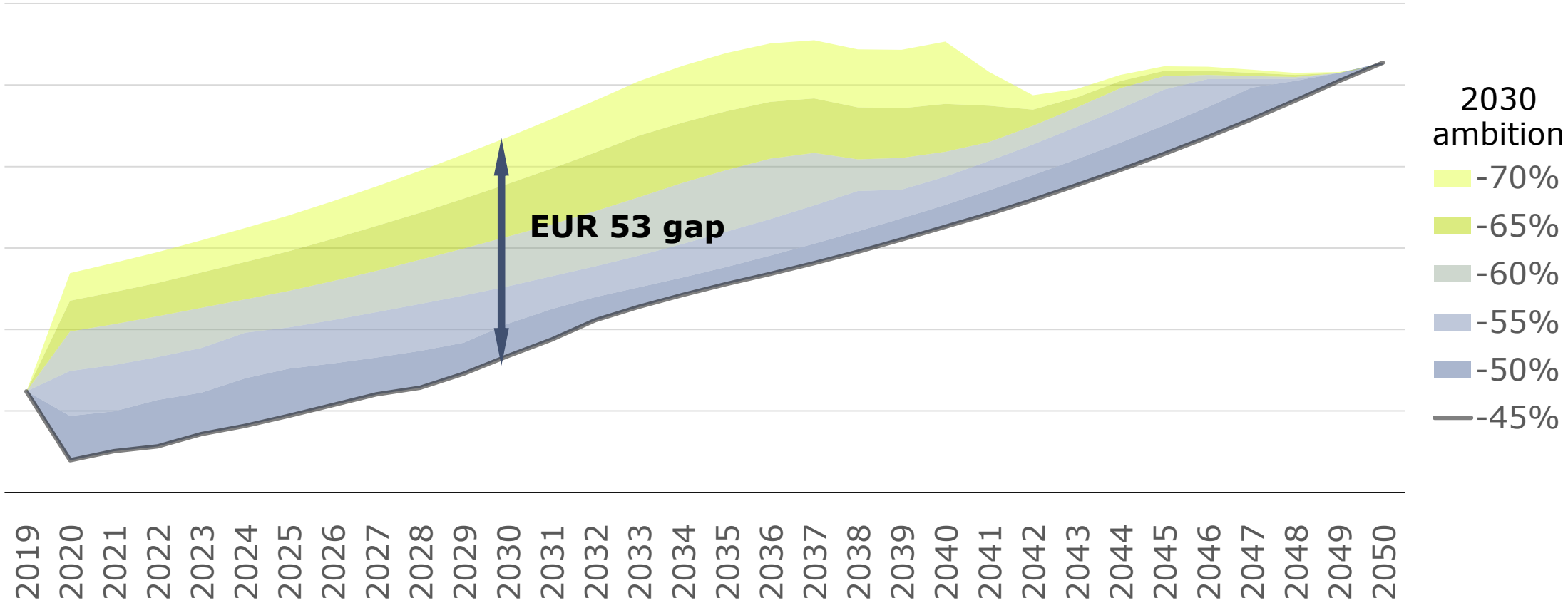
* Excluding LULUCF sinks.
Source: AFRY calculations.

We expect political pressure to drive ETS decarbonisation even harder as ambition increases



SCENARIO ANALYSIS – NO CHANGE

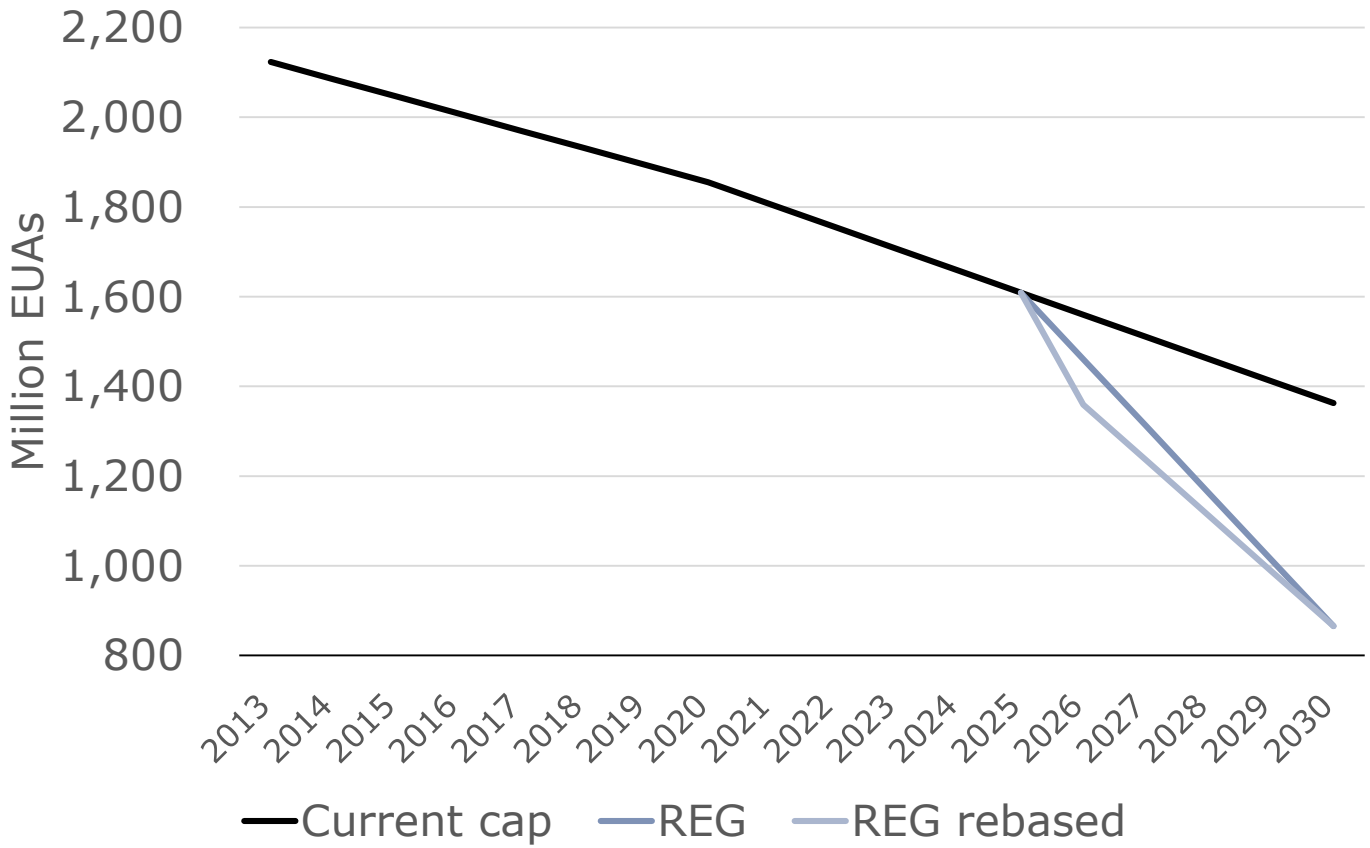
Our very rough initial estimates confirm that EUA prices are responsive to changes in ambition



These runs ignore Brexit, apply no changes to the scope of aviation or MSR functioning parameters, and do not add any new sectors to the ETS. In line with the AFRY Central EMQA scenario, he cap does not aim to achieve climate neutrality by 2050.
Source: AFRY modelling.

Even without scope change, market tightness is unpredictable over the medium term due to potential cap rebasing and alternative uses of EUAs

POTENTIAL CAPS TO 2030



UNCLEAR SUPPLY-SIDE SHOCKS

Inter-pillar flexibility

- Some Member States enjoy the right to cancel over 2021-2030 up to a total of10 million EUAs/year against their ESR obligations.
- The IA mentions that this flexibility could be increased.

Coal phase-outs, etc.

- Germany has announced its willingness to cancel EUAs, and other Member States could theoretically follow.

Cap rebasing

- The Commission raised the possibility of lowering the cap to account for the current cap exceeding baseline emission projections and thereby bolster the ETS's investment driving function.

The "current cap" assumes that aviation does not revert back to full scope, and ignores Brexit.
Source: SWD(2020) 176 final (AFRY calculations).

SCENARIO ANALYSIS – NO CHANGE

The Commission's reference to rebasing highlights the likely erosion of the support to the carbon price if the Market Stability Reserve were to weaken

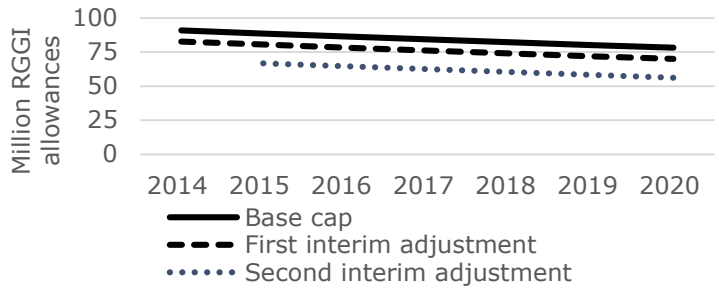
ADAPT MSR

- The ability of the Market Stability Reserve to prop up carbon prices may prove short-lived:
  - The doubled intake rate of the Market Stability Reserve ends in 2023.
  - Several factors may render its current activation thresholds inappropriate over the medium terms:
    - fall of cap,
    - technological progress,
    - change in European generation mix, etc.
- The revision of the MSR needs to balance the original rationale for its existence with the facts of the proposed increase in ambition.

REBASE CAP

- Given potentially weaker MSR action from 2024, relatively weaker adjustments to supply along with the fast decarbonisation of the power sector conspire to lower the carbon price, delaying mitigation in other sectors.
- Lowering the cap once can correct for a cap set at inflated levels.
- However:
  - comes across as interventionist,
  - does not create a general solution for future situations,
  - jolt to supply is sudden.

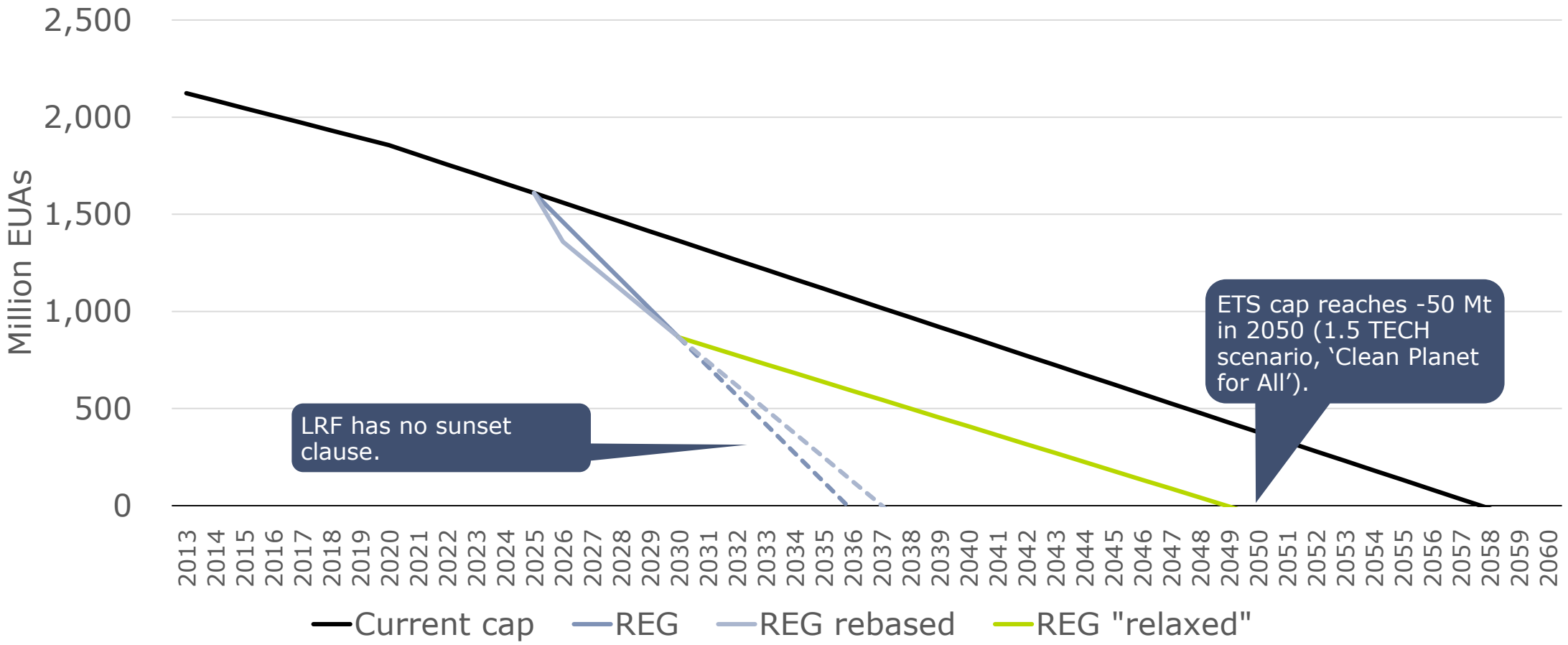
LEARN FROM RGGI



- RGGI authorities permanently withheld over 2014-2020 24% of the base cap, equal to the full volume banked over 2009-2013.
- Another adjustment is being finalized, expected to contract the 2021-2030 base cap by around 15%.*
- Advantages:
  - need not be ad hoc,
  - targets the whole surplus,
  - withdrawal is gradual.

* New Jersey re-joining RGGI in 2020 is ignored in the chart, but accounted for in the calculation of the third interim adjustment. Source: RGGI.

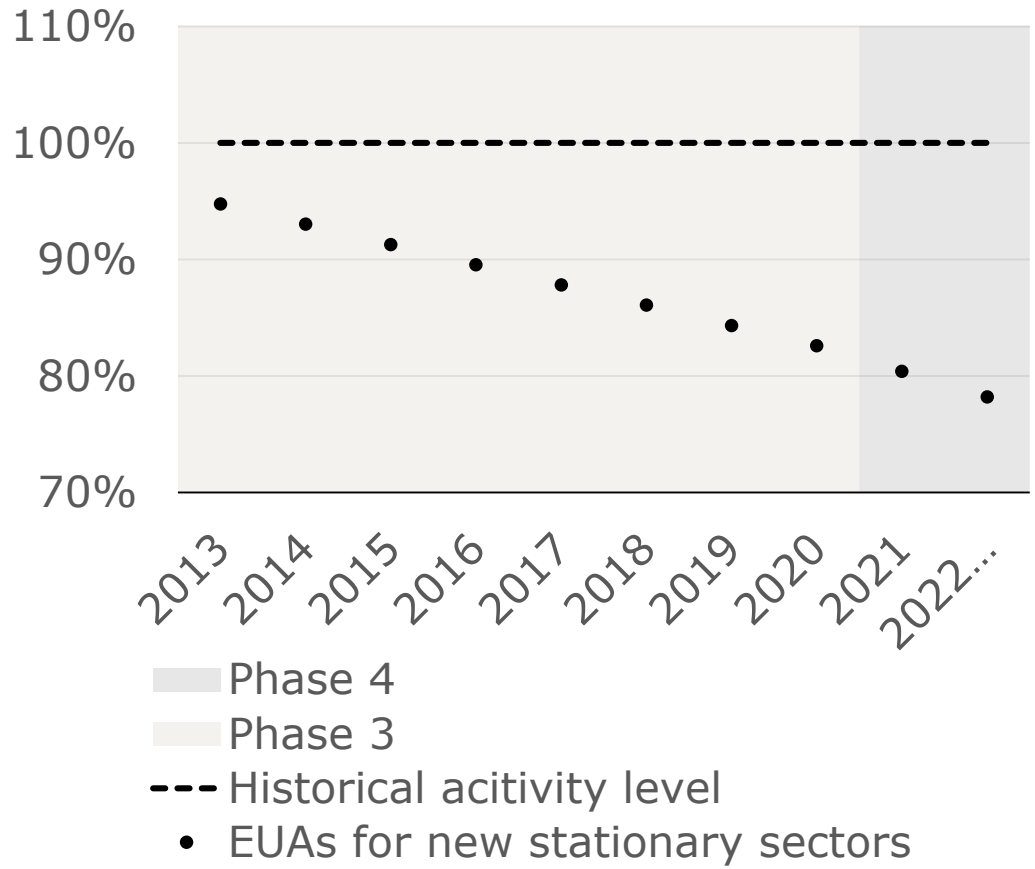
A conservative estimate sees the cap go negative in 2049, but compensating for slow ESR decarbonisation may require more aggressive interpretations



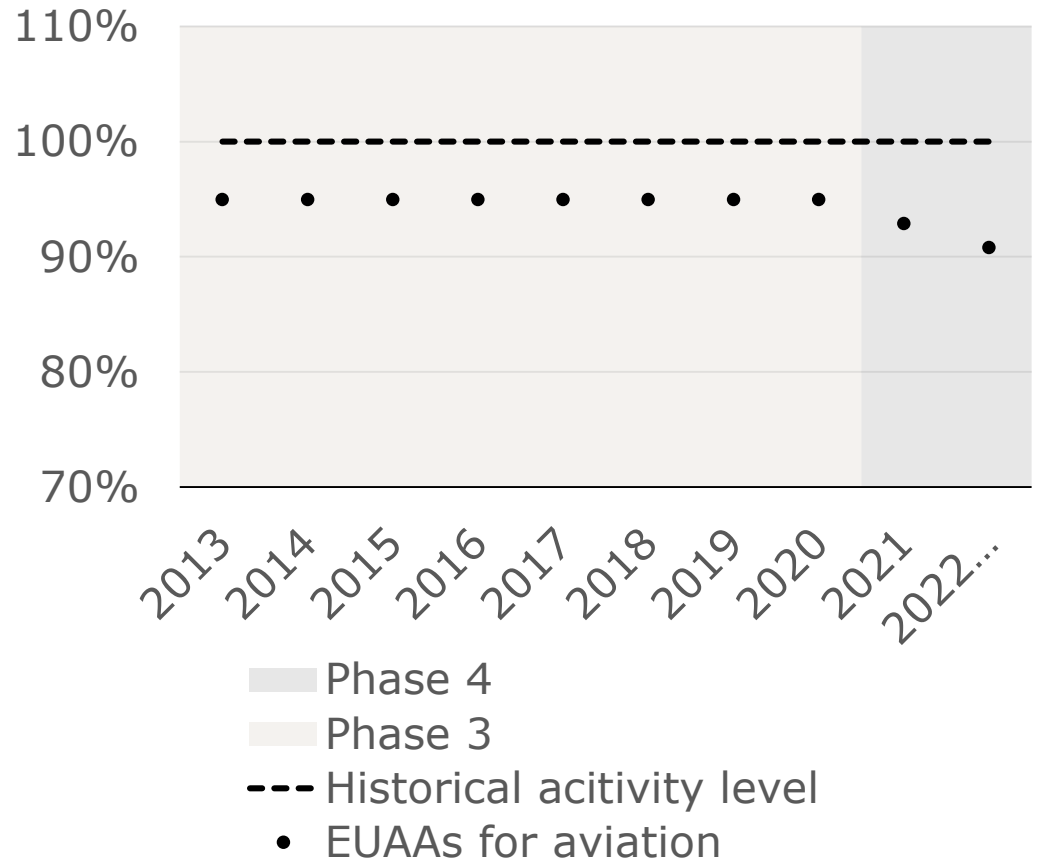
The "current cap" assumes that aviation does not revert back to full scope and that the LRF has no sunset clause, and ignores Brexit.
Source: SWD(2020) 176 final, COM(2018) 773 (AFRY calculations).

A crucial factor influencing the market impact of including new sectors is the supply of allowances issued against new demand

NEW STATIONARY SECTORS*



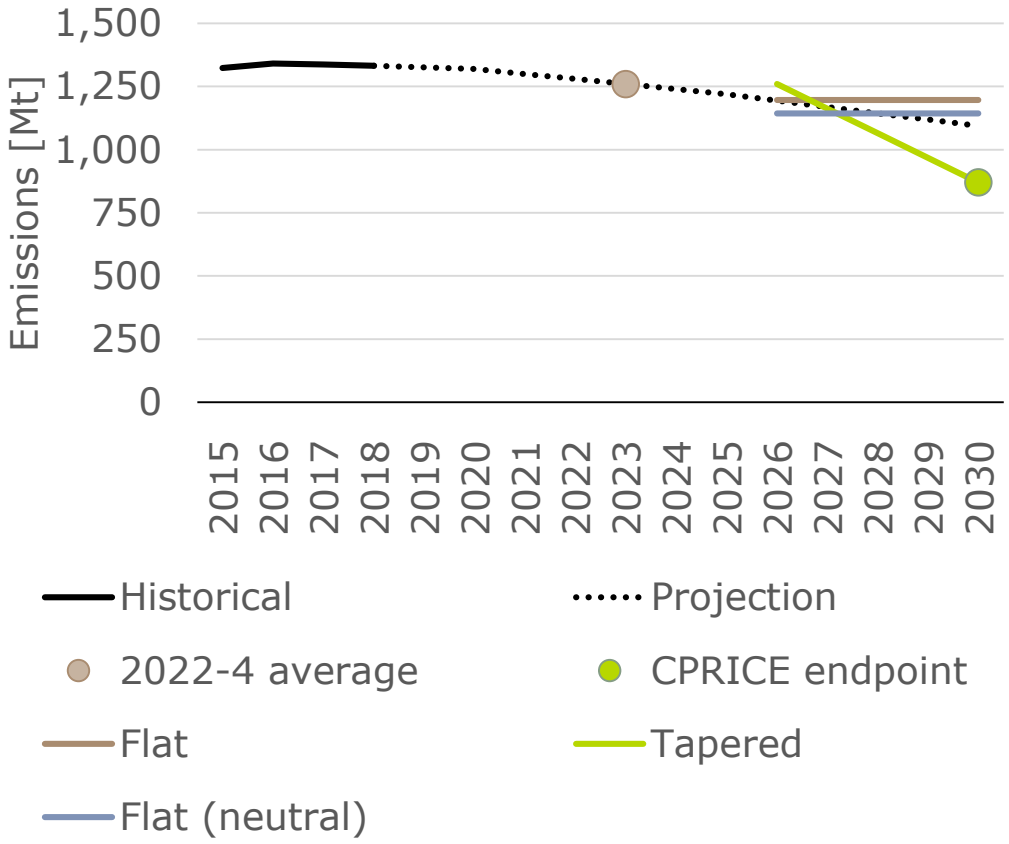
AVIATION**



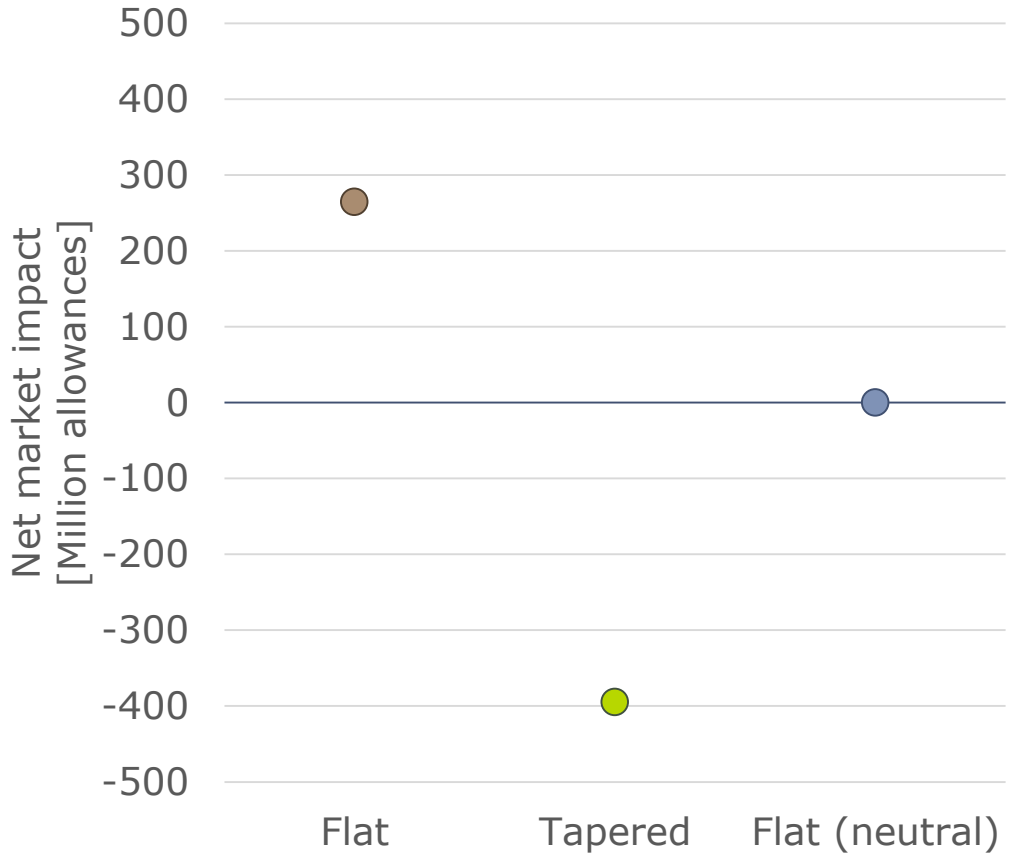
*Sectors included from 2013 onward: aluminium, petrochemicals, ammonia, acid production (nitric, adipic, glyoxylic).
** Aviation case study simplified to basic principles, ignoring Phase 3 supply complications from 'Stop the clock' and initial start in 2012.

Uncertainty increases under scope change due to lack of guidance about the starting points and trajectory of the expanded cap

POSSIBLE CAPS FOR NEW SECTORS*

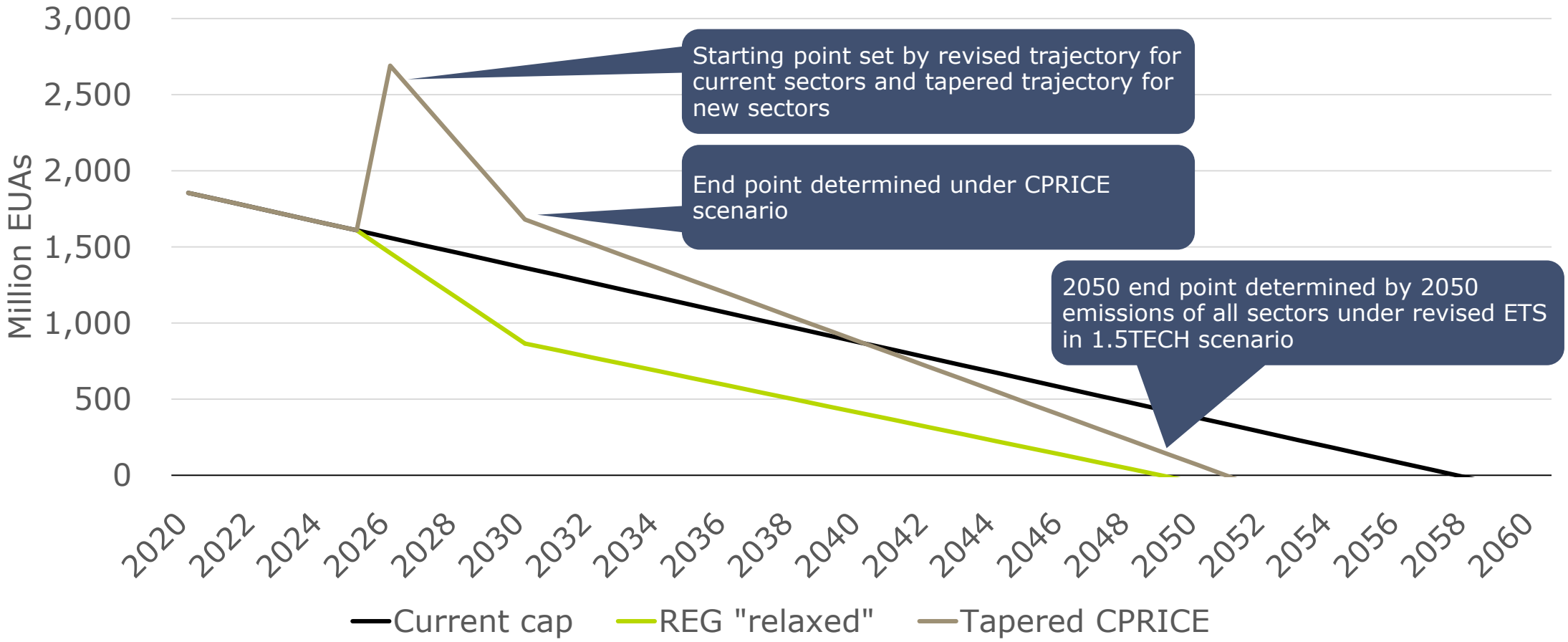


NET MARKET IMPACT (2026-2030)



* New sectors analysed cover all new domestic transportation (including navigation), and buildings.
Source: SWD(2020) 176 final, EEA (AFRY calculations).

Lack of clarity about long-term inflexion points creates further uncertainty about cap trajectory and market conditions



Source: SWD(2020) 176 final, COM(2018) 773 (AFRY calculations).

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TAKE-HOME MESSAGES

The Commission has left plenty of detail to be explored further

- The change in ambition opens up the whole policy framework to possible reform.
- Regardless of any change in scope, delivering 55% target will require faster decarbonisation of the current ETS sectors.
- Expanding the scope of the ETS depends on the practicality of adding sectors, their ability to respond to price signals and overcome non-economic barriers.
- Lack of clarity around supply and market stabilisation mechanism creates a measure of uncertainty over future price trajectories.
- There is a lot detail still to sort out…

LEGISLATIVE TIMELINE

The development of the legal package laying out the function of the carbon market to 2030 and beyond will unfold over the next three years

MAIN LEGISLATION

European Climate Law

- Institutional positions (2030):
  - European Commission Proposal: At least -55%, with sinks.
  - European Parliament: At least -60%, without sinks.
  - European Council: Expected in December 2020, with 13 MSs currently supportive of at least 55%.
- Trialogue and publication in OJEU likely to take circa 1 year.

ETS revision

- European Commission Proposal: expected June 2021 (along with ESR, LULUCF, RE, EE).
  - Unclear if MSR revision and border adjustments will be included here.
- 3 years* for EP and council positions to develop, Trialogue to conclude, and OJEU to publish revision.
- Market impacts expected around February 2025.

OJEU RELEVANCE

* Based on duration of most recent ETS reform: Commission Proposal published on 15 July 2015, Trialogue completed on 9 November 2017, OJEU publication on 19 March 2018.

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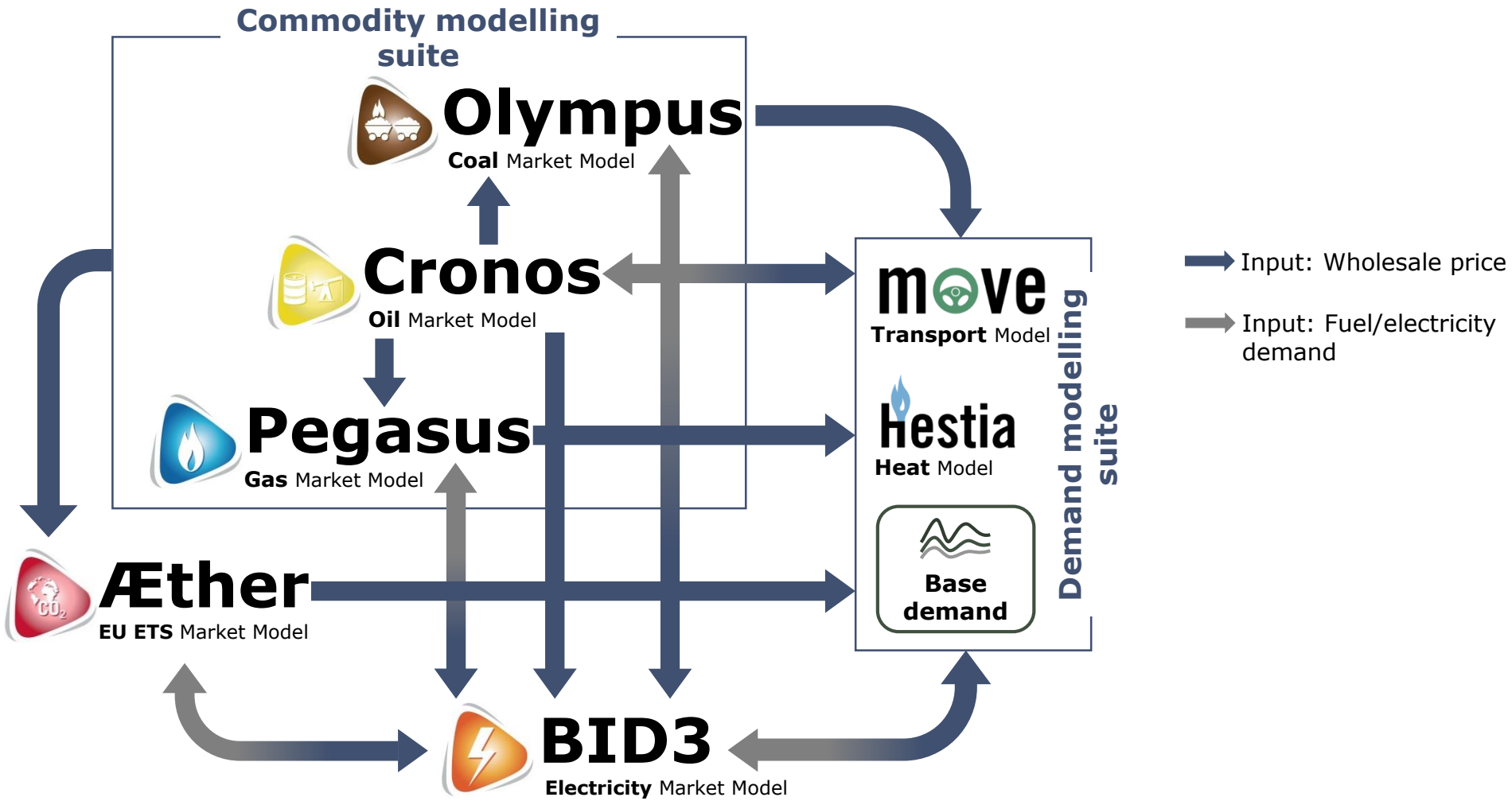
AFRY stands ready to deploy bespoke analysis to investigate on behalf of its clients the energy market implications of various scopes of the EU ETS



CONCLUDING REMARKS

Contact us

- **Reach out** to us for more information:
  gareth.davies@afry.com
  alex.luta@afry.com
- **More webinars** will follow with relevant topics, and any update on the evolving situation.
- Next webinar:

Operational efficiency and digitalisation in the energy sector

Thursday 22 October

3pm BST / 4pm CET

Sign up