

Decarbonising the Life Sciences

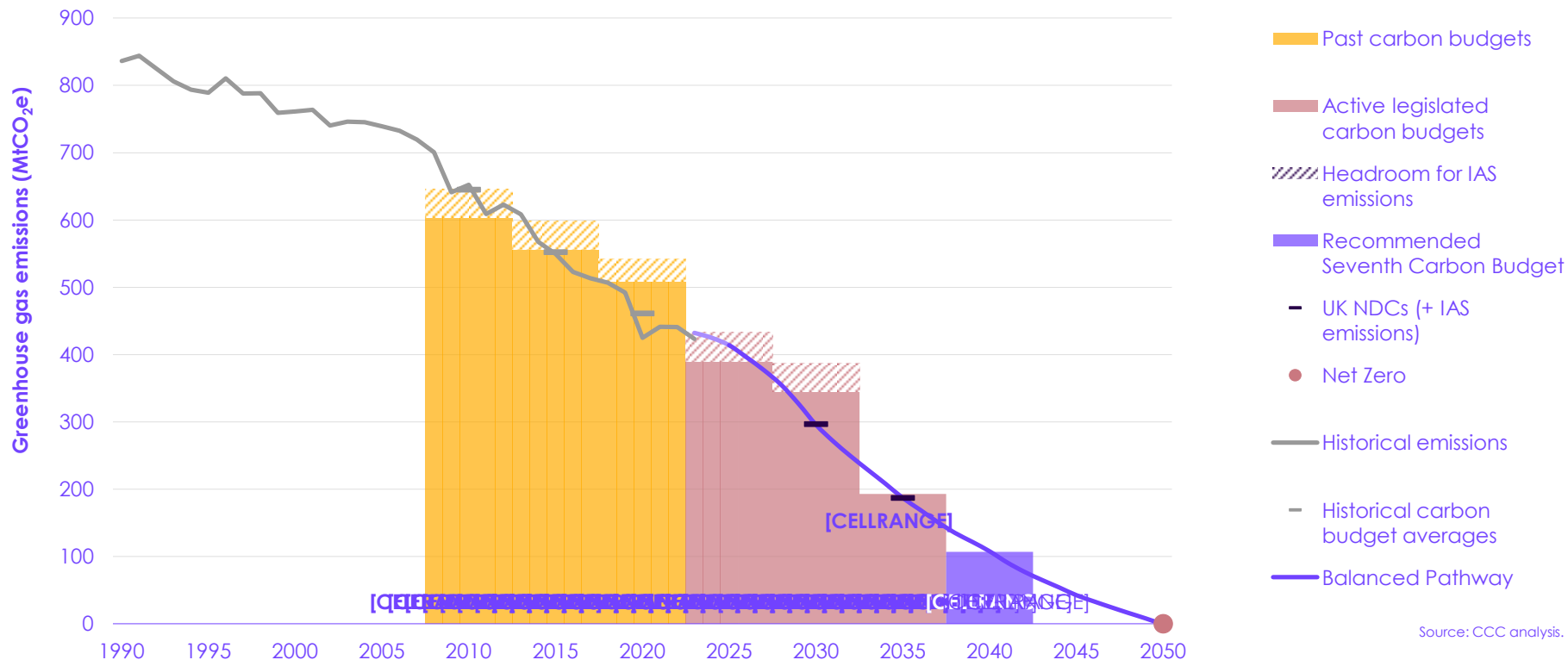
Emma Pinchbeck FEI

Chief Executive

21 November 2025

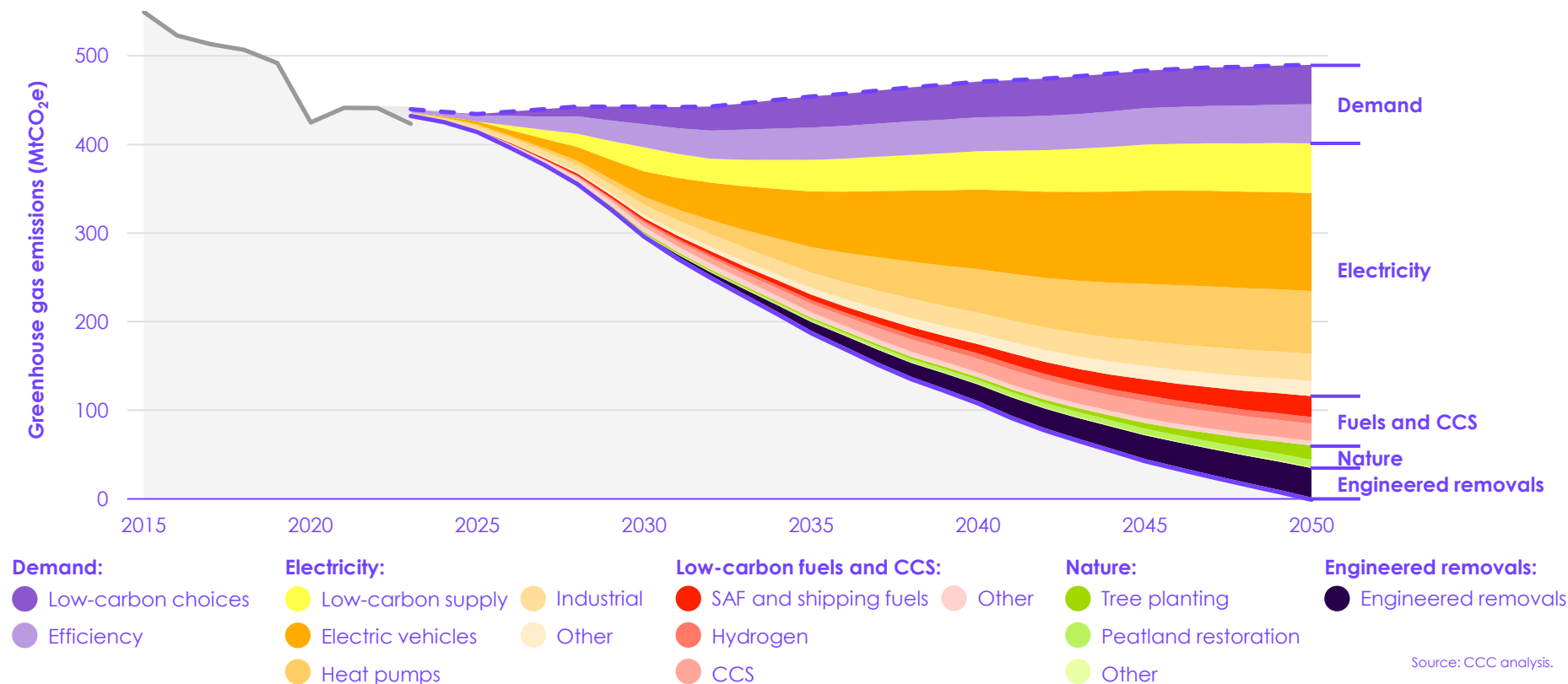
The recommended Seventh Carbon Budget

Our Balanced Pathway achieves all existing carbon budgets, the UK's NDCs, and Net Zero



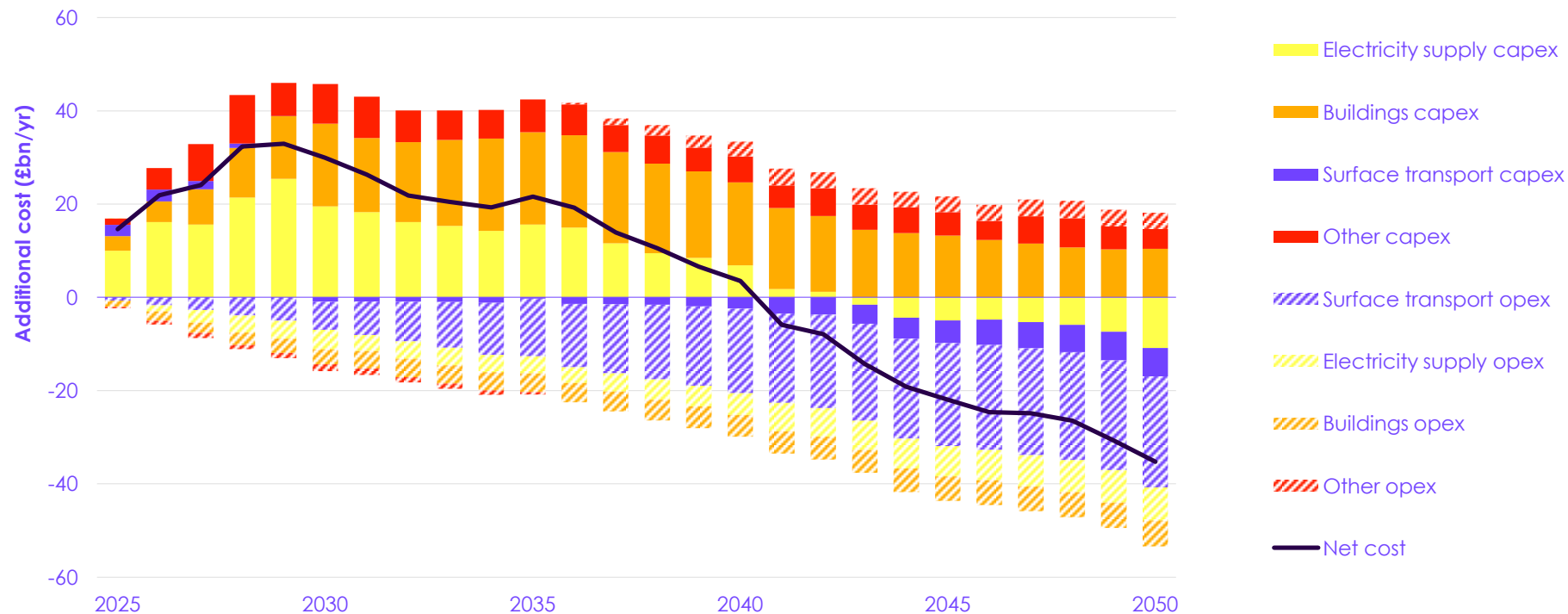
Where the emissions reductions are within the Balanced Pathway

60% from electrifying key technologies and decarbonising and expanding electricity supply



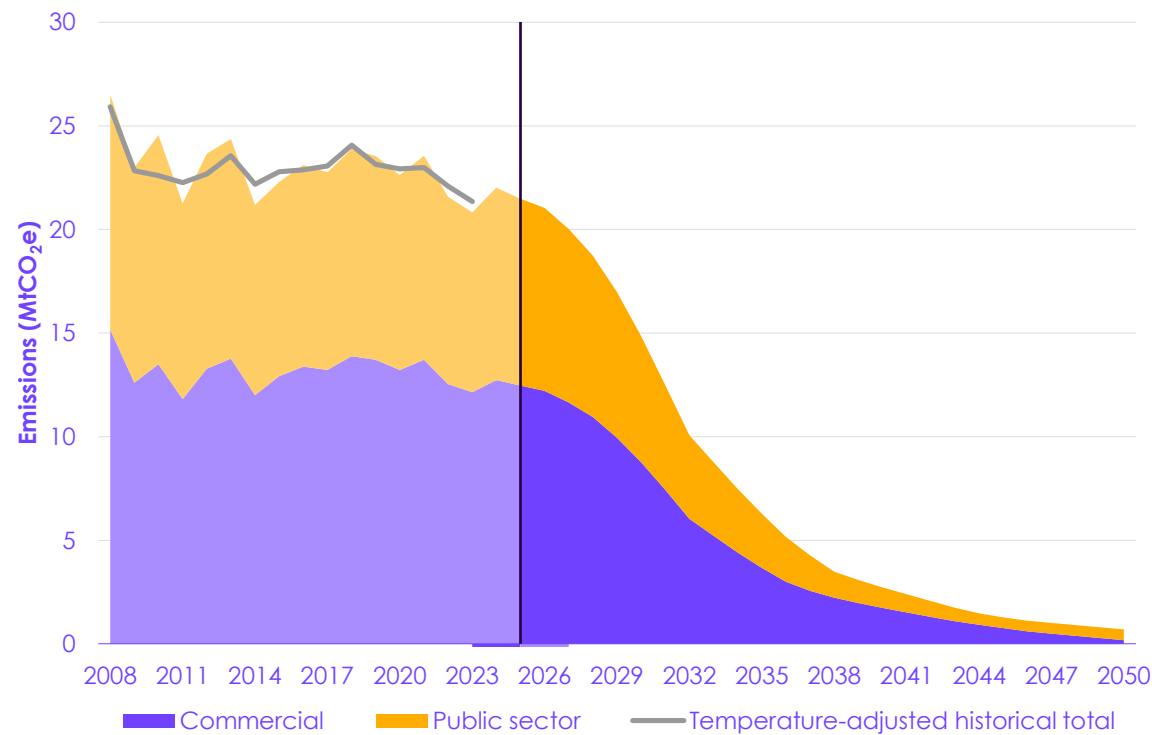
Whole-economy costs, relative to the baseline

Upfront capital provides long-term savings, starting in the Seventh Carbon Budget period



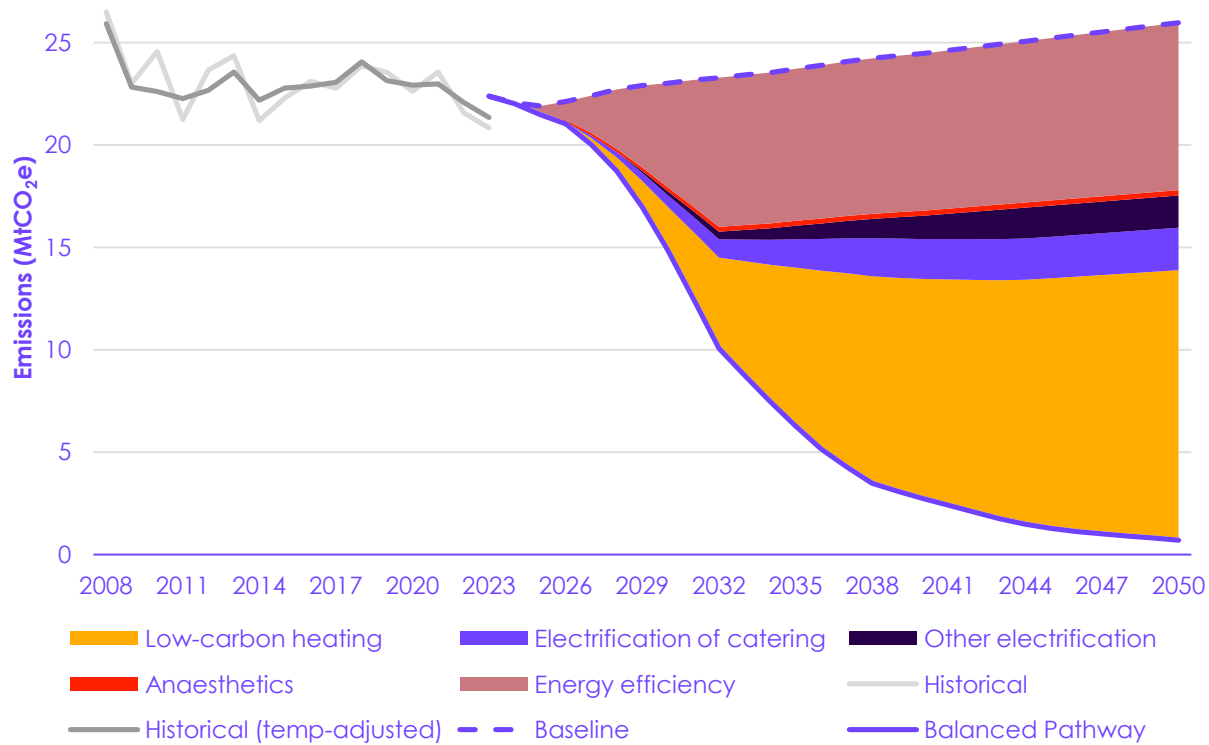
Source: CCC analysis.

Non-residential buildings emissions by subsector
Historical (2008–2023) and Balanced Pathway (2025–2050)



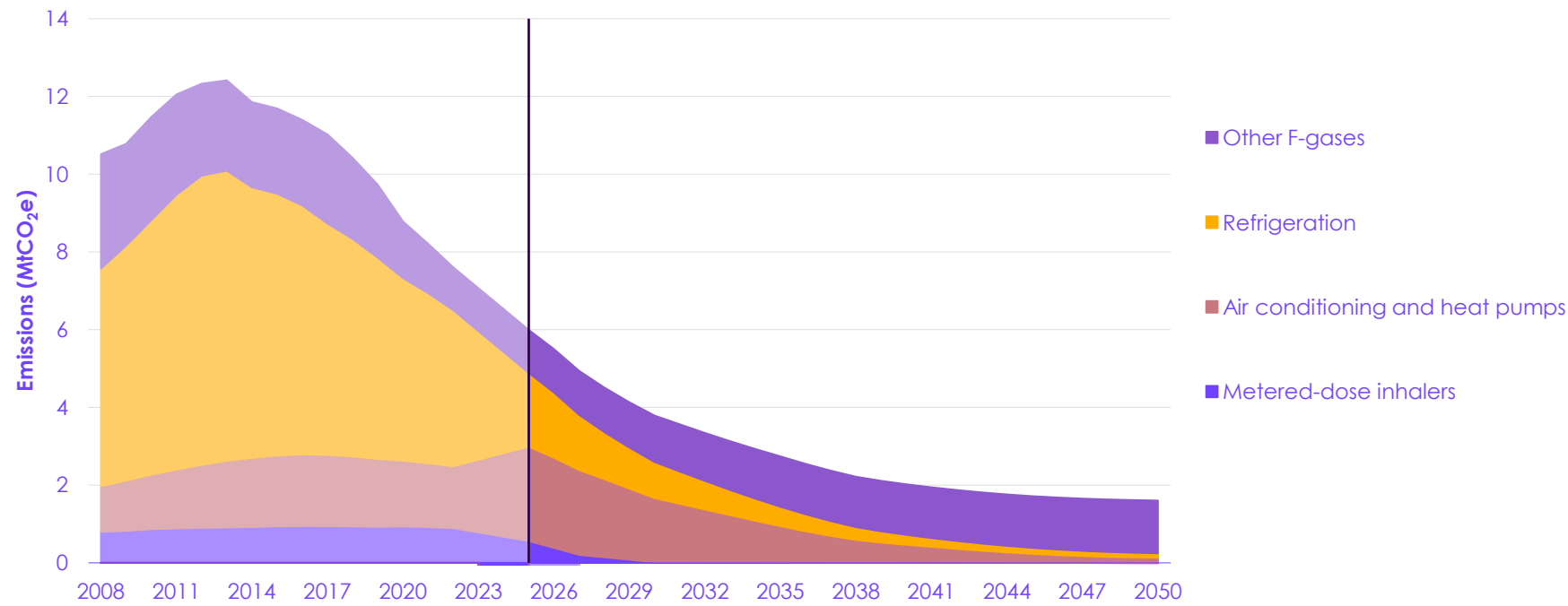
Sources of abatement in non-residential buildings

Balanced Pathway (2025-2050)



F-gases emissions by subsector – historical (2008–2022) and Balanced Pathway (2025–2050)

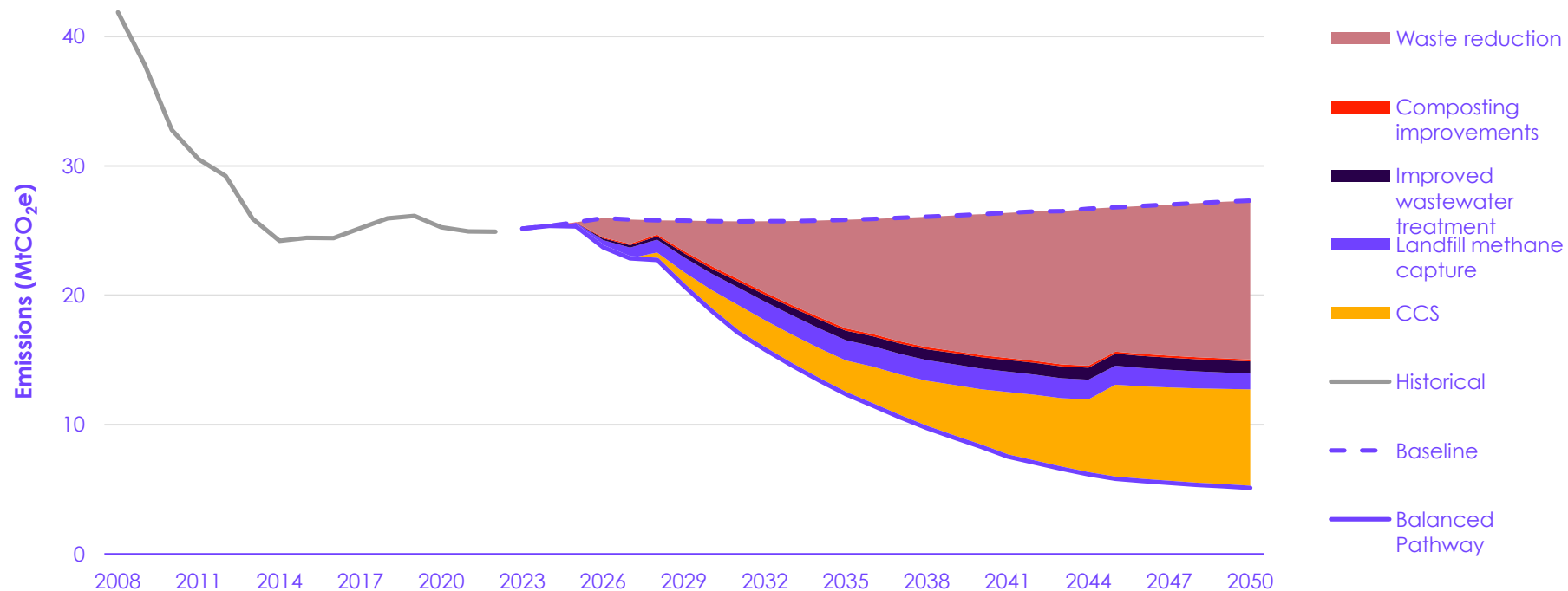
F-gases emissions in the Balanced Pathway fall to <2Mt by 2050



Source: CCC analysis.

Sources of emissions abatement for Waste

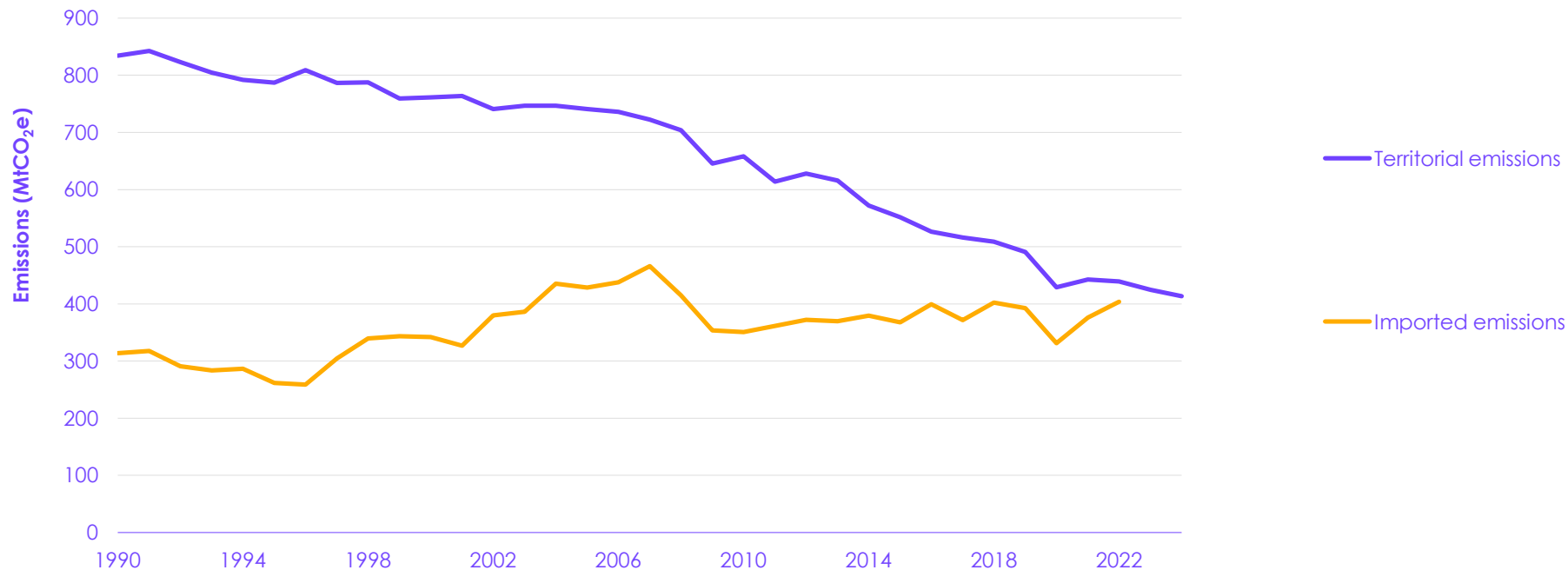
Recycling rates will need to increase to 68% by 2035



Source: CCC analysis.

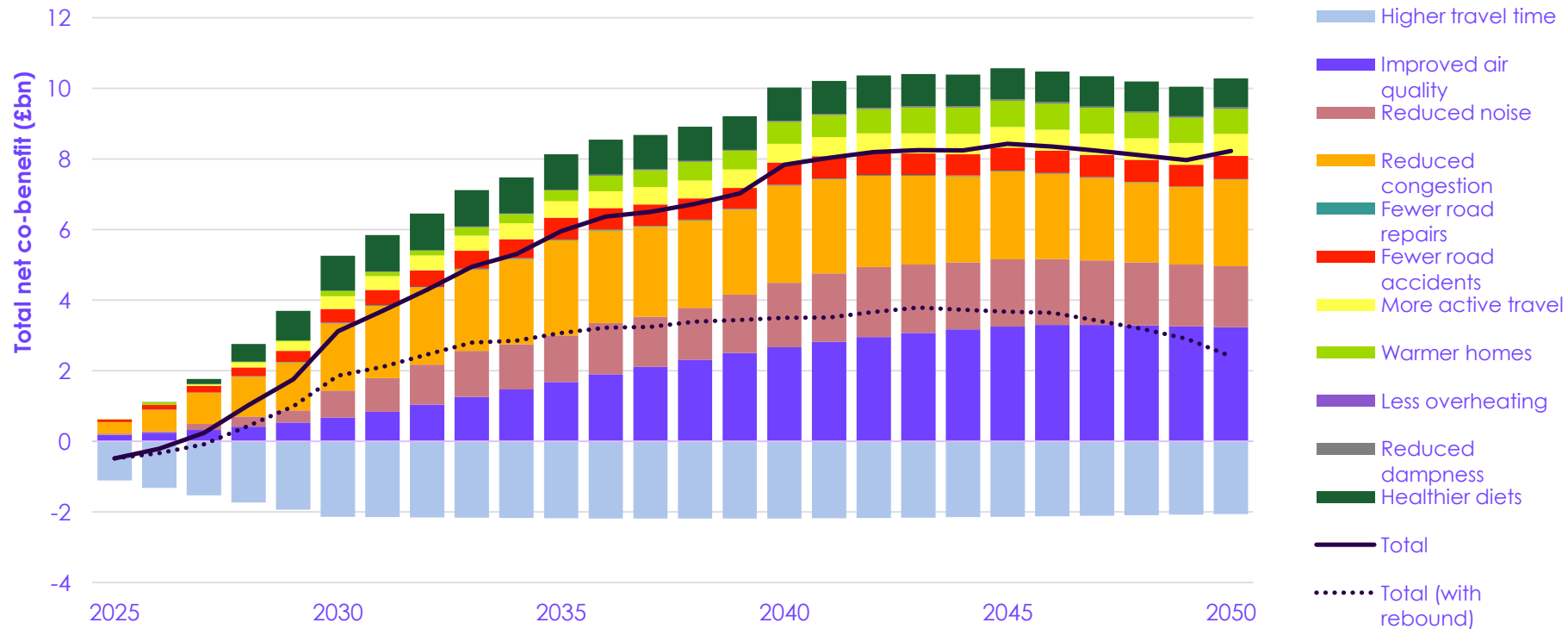
Emissions from imports and territorial emissions

A significant fraction of imported emissions is from public procurement, particularly the health system.



Impacts for households, including for health

Quantified co-impacts are estimated to provide £2.4-£8.2bn per year in net benefit by 2050



Source: CCC analysis.

Climate-sensitive health risks UK already facing impacts

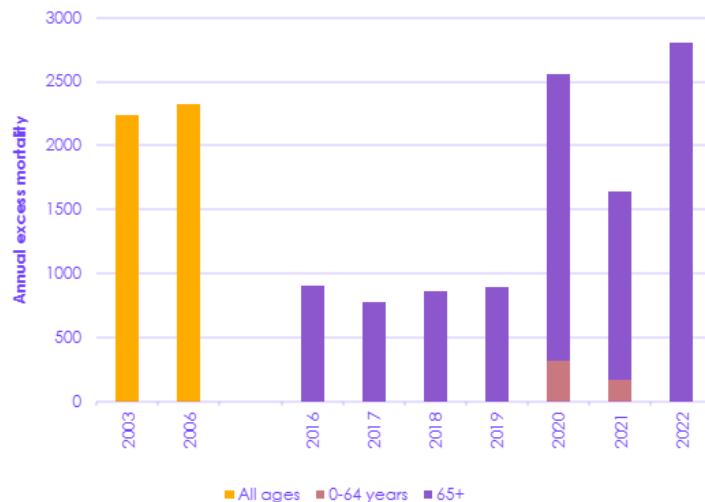
Vulnerability, exposure and health system capacity and resilience are determinants of risk. Without further adaptation climate change will lead to an increase in:

- Injury, morbidity (including heat-related illnesses) and mortality from extreme weather
- Vector-borne diseases
- Mental and physiological health impacts
- Impacts on healthcare facilities and delivery

The UK needs dedicated adaptation funding for adaptation measures, better data monitoring, targeted public information on managing risks and climate training for healthcare staff.

Adaptation can be tackled alongside decarbonisation e.g. keeping buildings cool through improved insulation or use of air-to-air heat pumps for both heating and cooling.

Figure 1 Excess heat deaths during heatwaves in England



Source: PHE (2021) Heatwave mortality monitoring reports 2016-2020, UKHSA (2022) Heatwave mortality monitoring report.

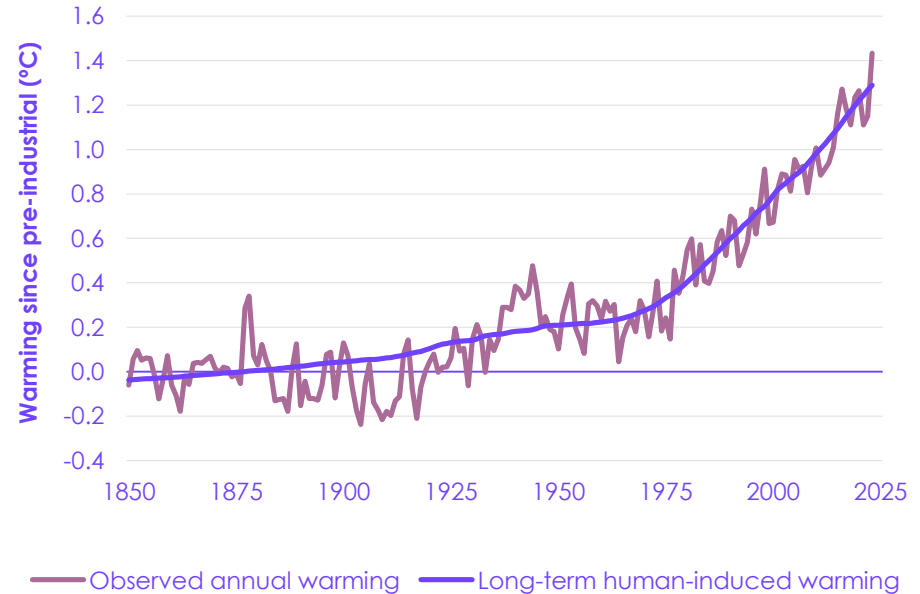
Notes: Data split by age range is not available for 2003 and 2006. 2020-2022 data does not include COVID-19 related deaths. 2022 analysis only estimated deaths in over 65s.

Global warming is approaching 1.5°C

Every 0.1°C of warming increases threat

- The Earth's climate is changing rapidly as human-induced warming is increasing at an unprecedented rate.
- Long-term human-induced warming now reaches around 1.3°C above pre-industrial levels and is rising at over 0.2°C per decade.
- It is now almost inevitable that warming levels will exceed 1.5°C in the next ten years, though it may still be possible to limit warming to 1.5°C in the longer term.

Global average temperature rise



Source: Smith, C. et al (2024) Climate indicator data: indicators of global climate change 2023 revision.

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