

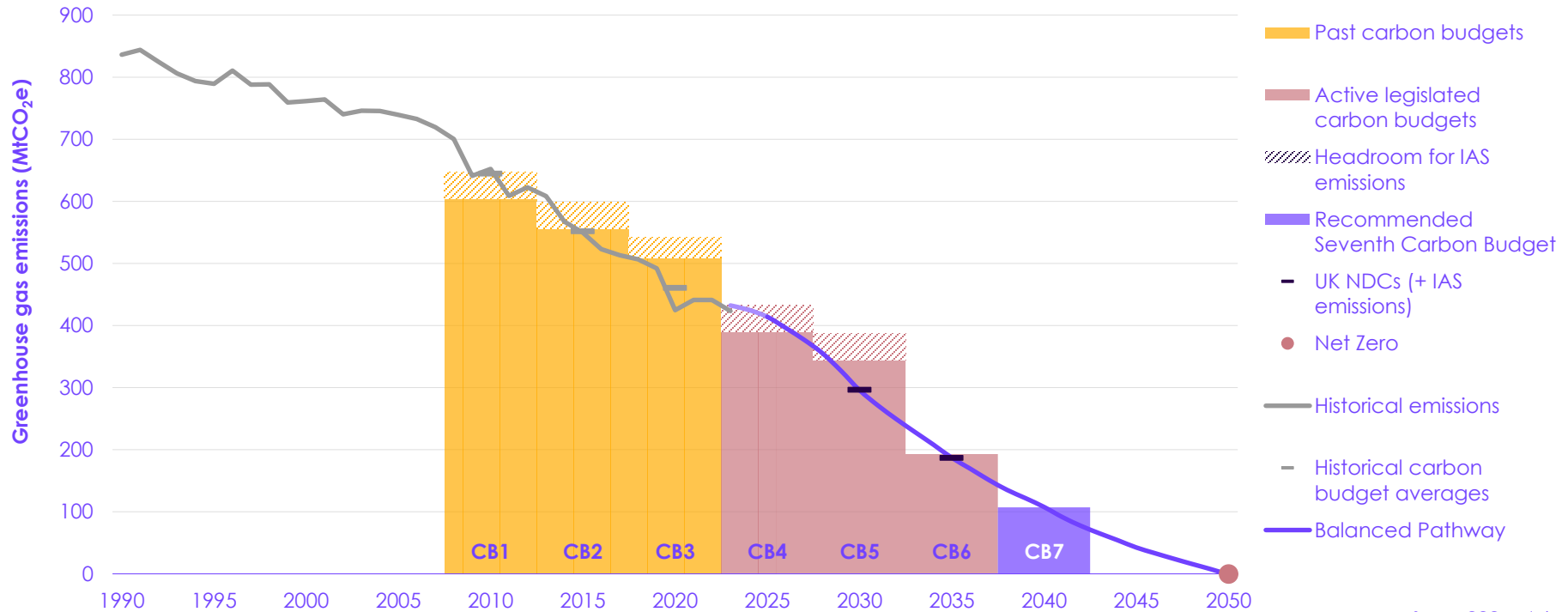
25 March 2025

The CCC's Seventh Carbon Budget advice

Dr James Richardson, Chief Economist

The recommended Seventh Carbon Budget is 535 MtCO₂e

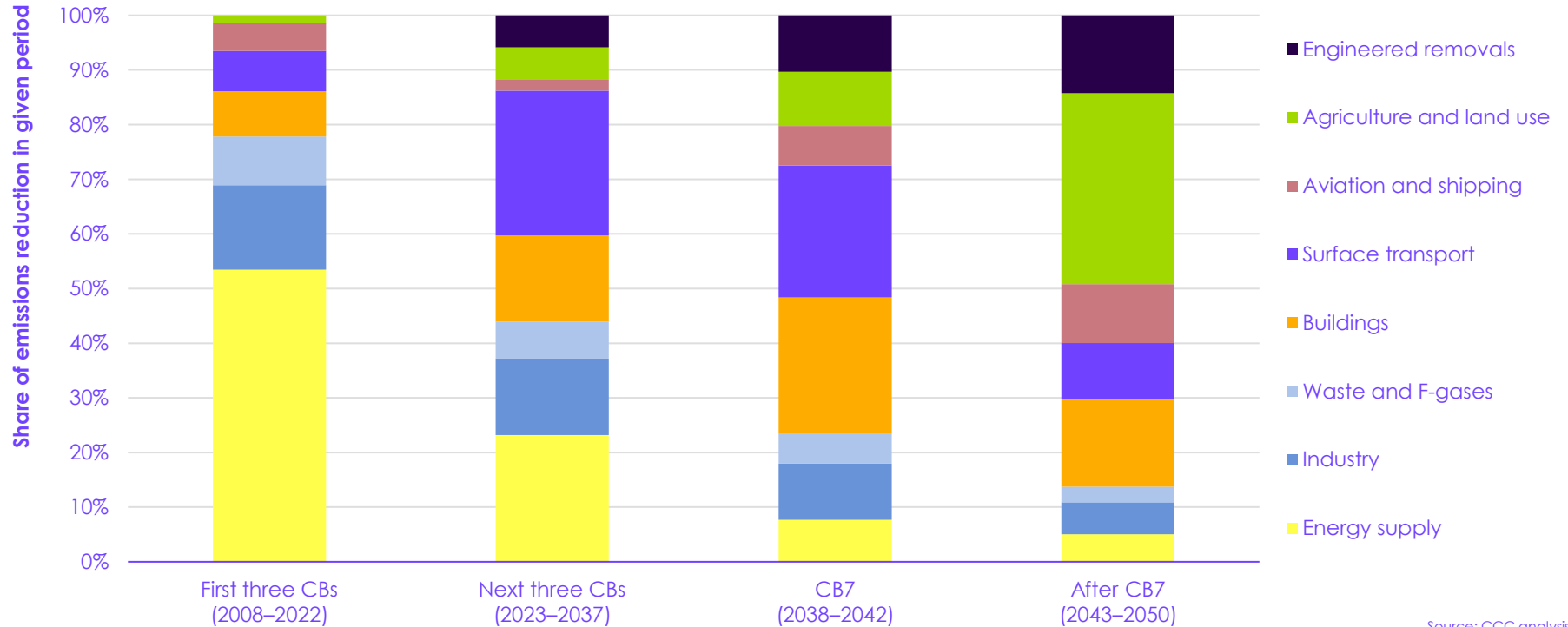
Our Balanced Pathway meets all existing carbon budgets, the UK's NDCs, and Net Zero



Source: CCC analysis.

Distribution of emissions reductions during carbon budget periods

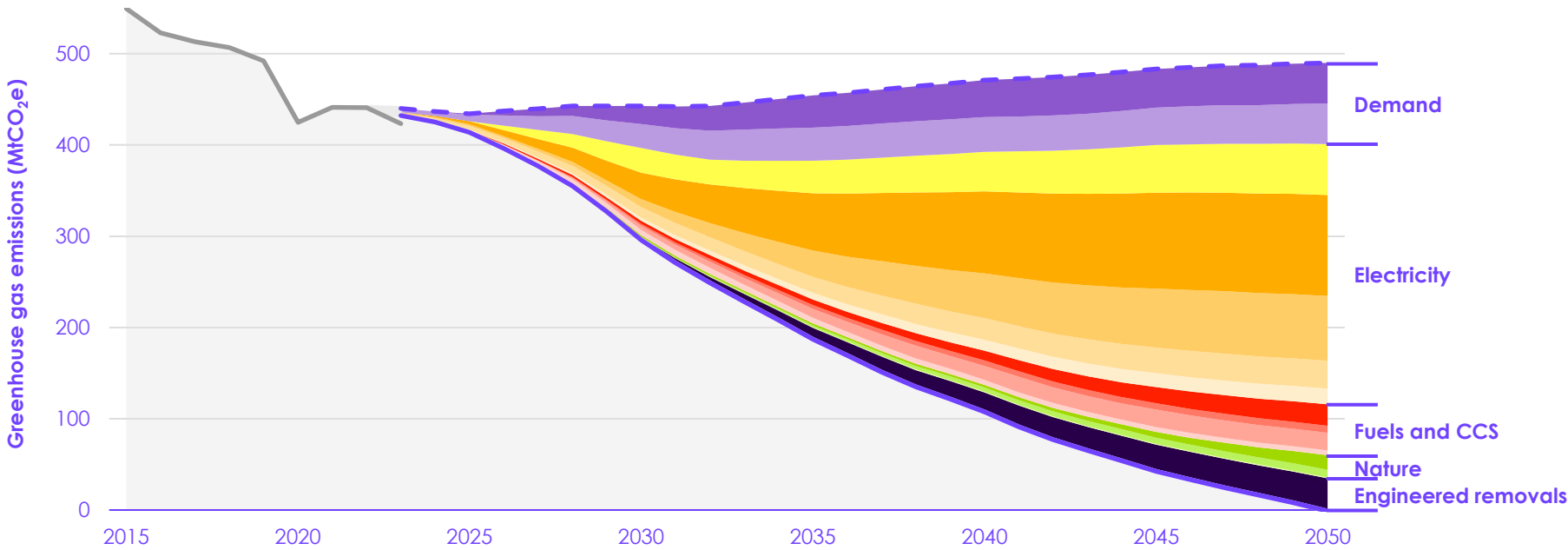
Achieving carbon budgets will require emissions reductions across a wider range of sectors



Source: CCC analysis.

Where the emissions reductions are within the Balanced Pathway

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

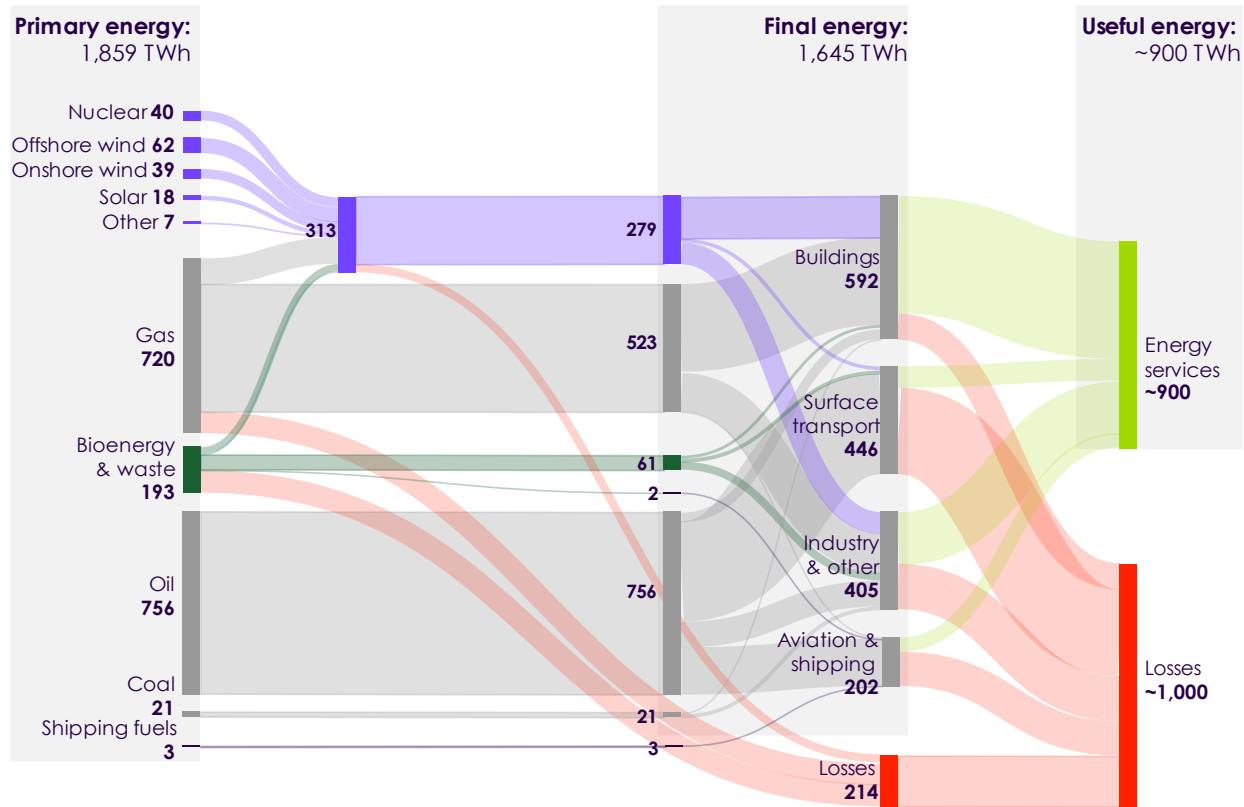


- Demand:**
 - Low-carbon choices
 - Efficiency
- Electricity:**
 - Low-carbon supply
 - Electric vehicles
 - Heat pumps
 - Industrial
 - Other
- Low-carbon fuels and CCS:**
 - SAF and shipping fuels
 - Hydrogen
 - CCS
 - Other
- Nature:**
 - Tree planting
 - Peatland restoration
 - Other
- Engineered removals:**
 - Engineered removals

Source: CCC analysis

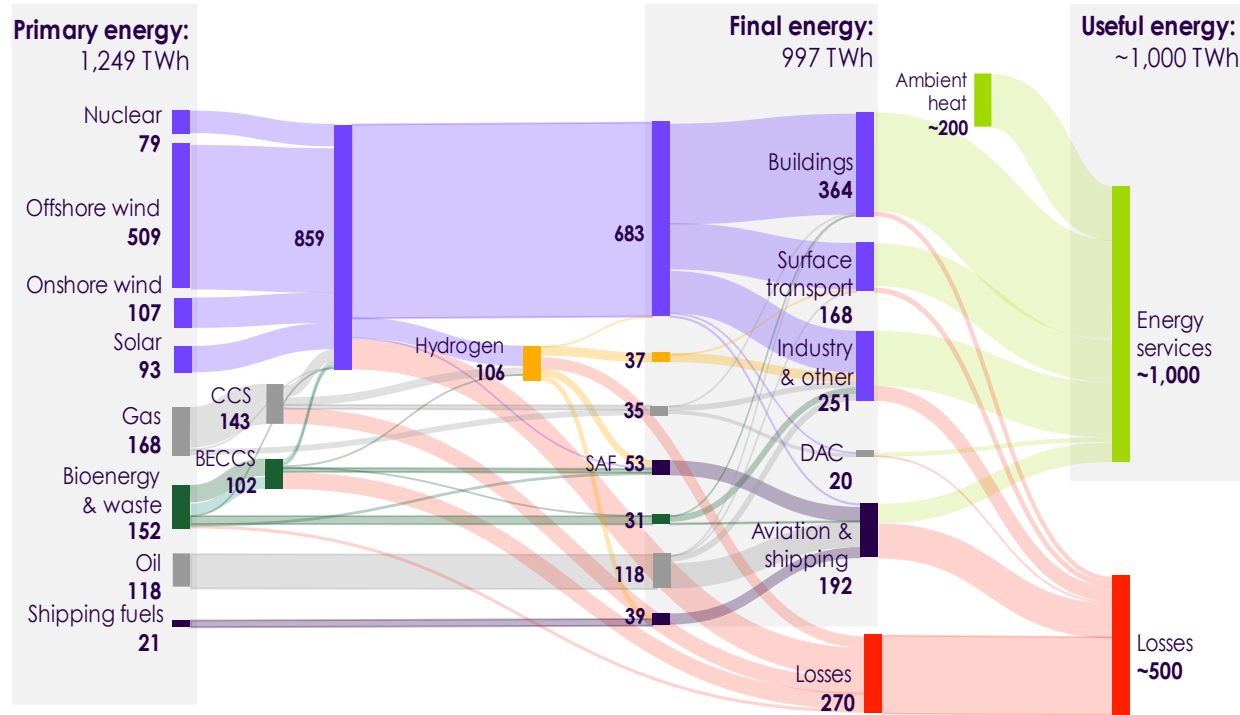
The transformation of the energy system in the Balanced Pathway, 2025

(a) 2025 energy system

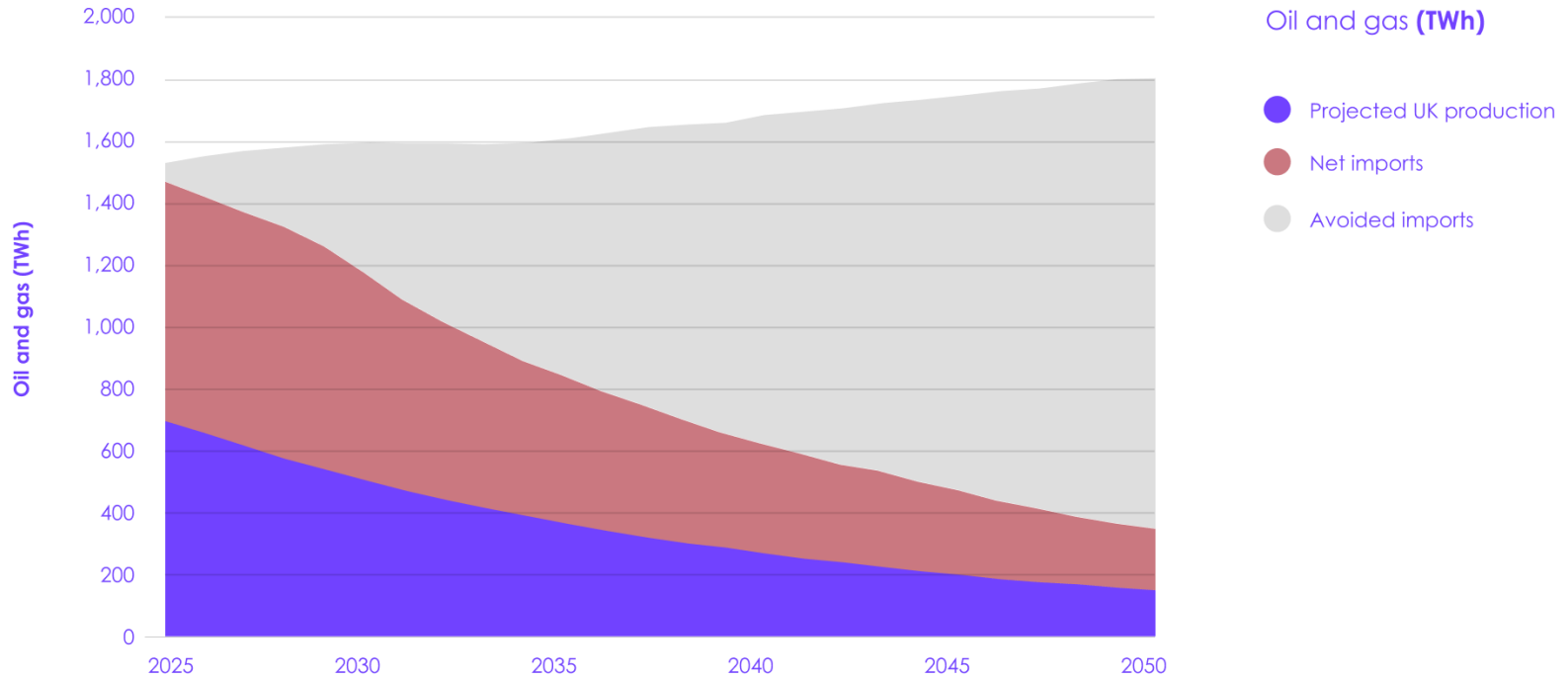


The transformation of the energy system in the Balanced Pathway, 2050

(b) 2050 energy system



UK consumption and imports of oil and gas in the Balanced Pathway



Impact of energy price shocks

Reduced reliance on imported fossil fuels will substantially reduce our exposure

Impact of a 2022 gas price shock on:

The annualised
system cost per
unit of electricity
in 2040:

Baseline:
↑ 28%

vs

Balanced Pathway:
↑ 9%

Average energy
bill in 2040:

Baseline:
↑ 59%

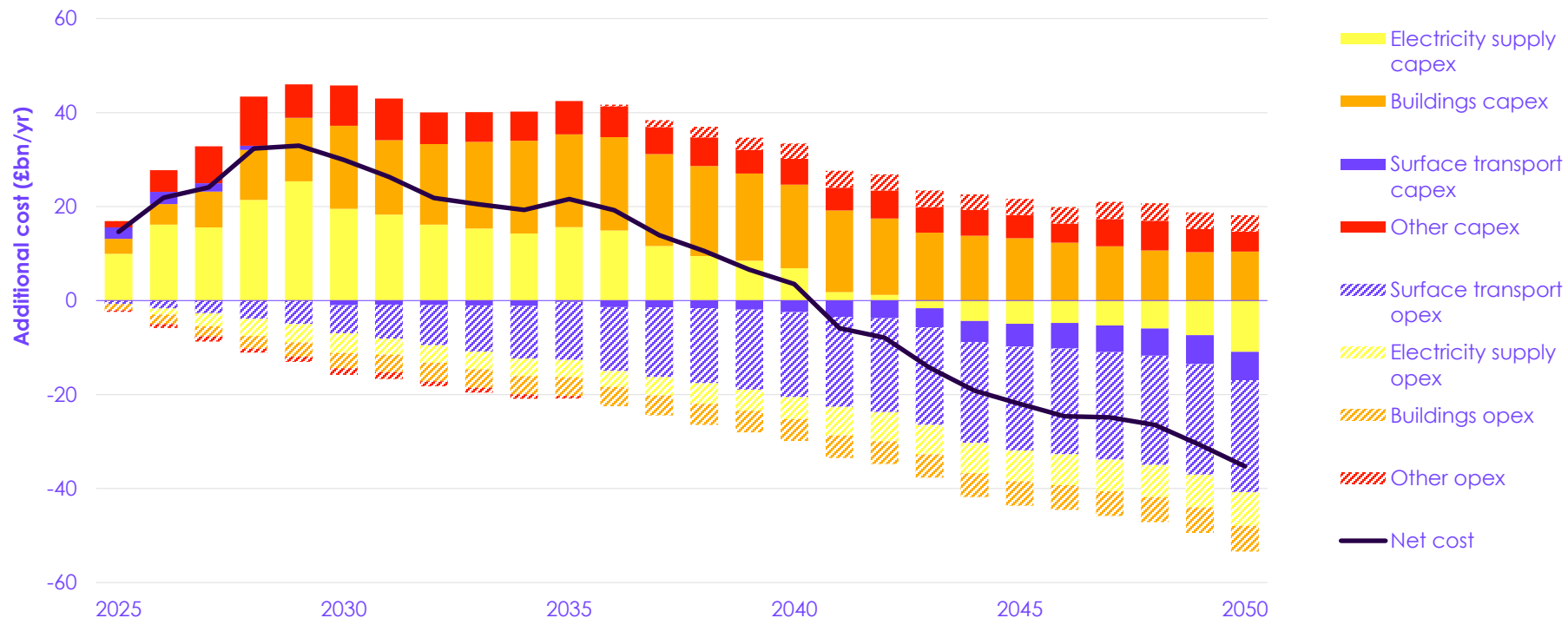
vs

Balanced Pathway:
↑ 4%

Source: CCC, AFRY analysis.

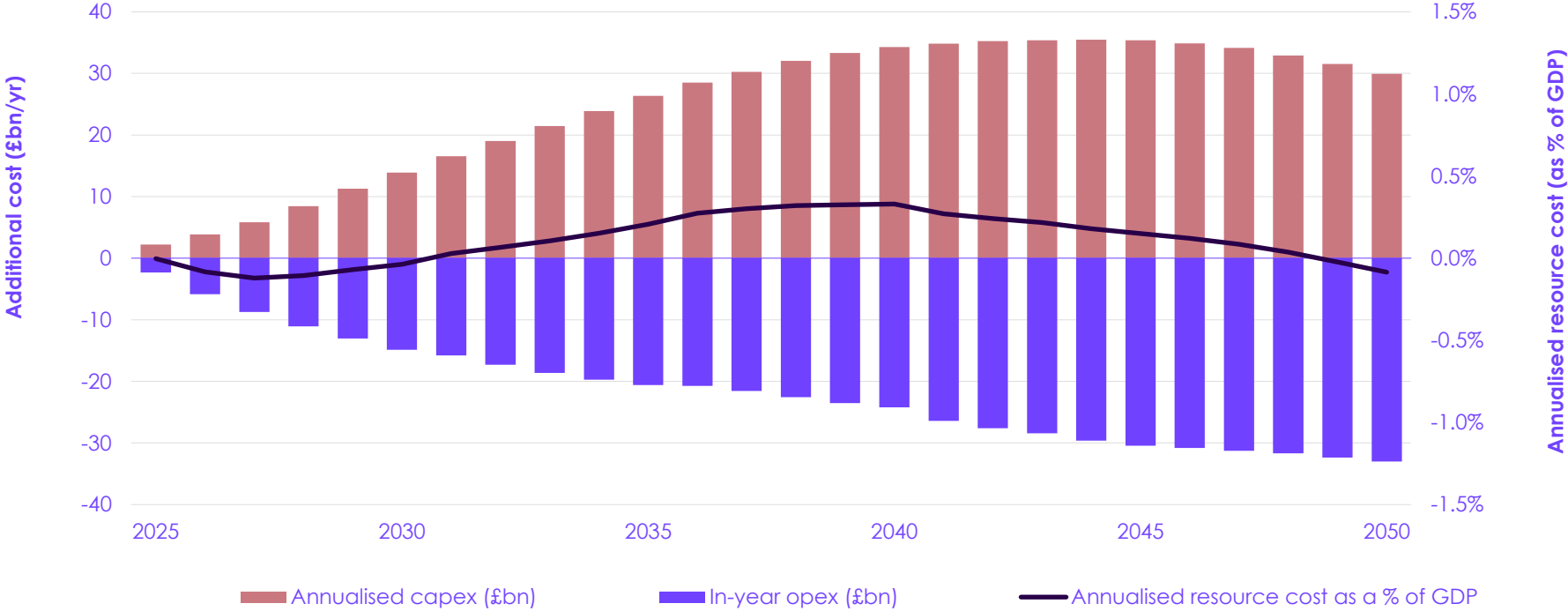
Whole economy costs, relative to the baseline

The transition involves upfront investment, but leads to savings overall by 2050



Source: CCC analysis.

Annualised resource capital and operating costs, and annualised net costs as a proportion of GDP

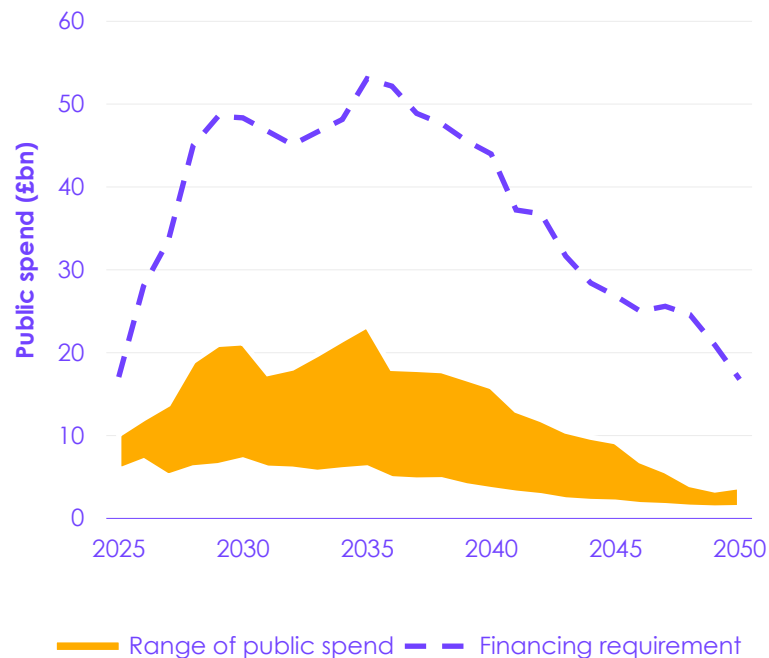


Range of public spend

The private sector will deliver most investment

- We anticipate public spend being higher early in the transition, to drive investment and innovation.
- We estimate £6-23 billion of additional capital investment is publicly funded until 2035, falling to £1-4 billion in 2050.
- This involves the private sector funding between two fifths and over nine tenths of the financing requirement, depending on the year and the upper or lower estimate.

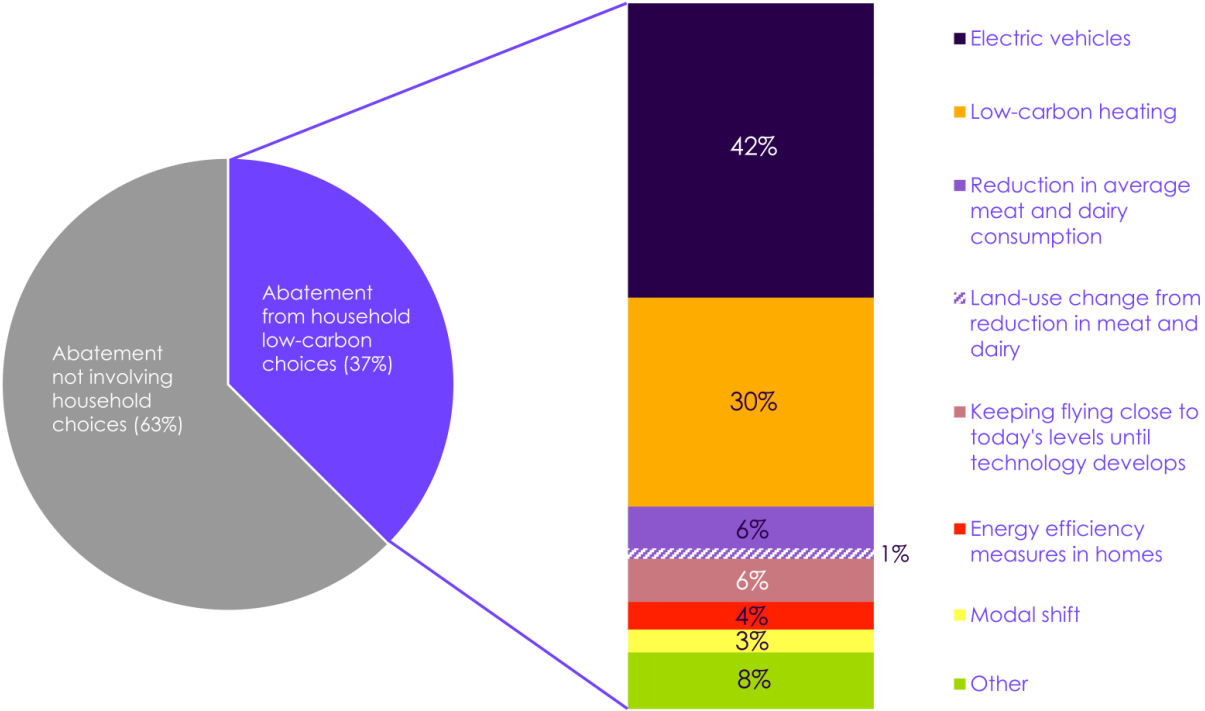
Estimated range of public spend



CCC analysis

Households contribute to a third of emissions reduction in 2040

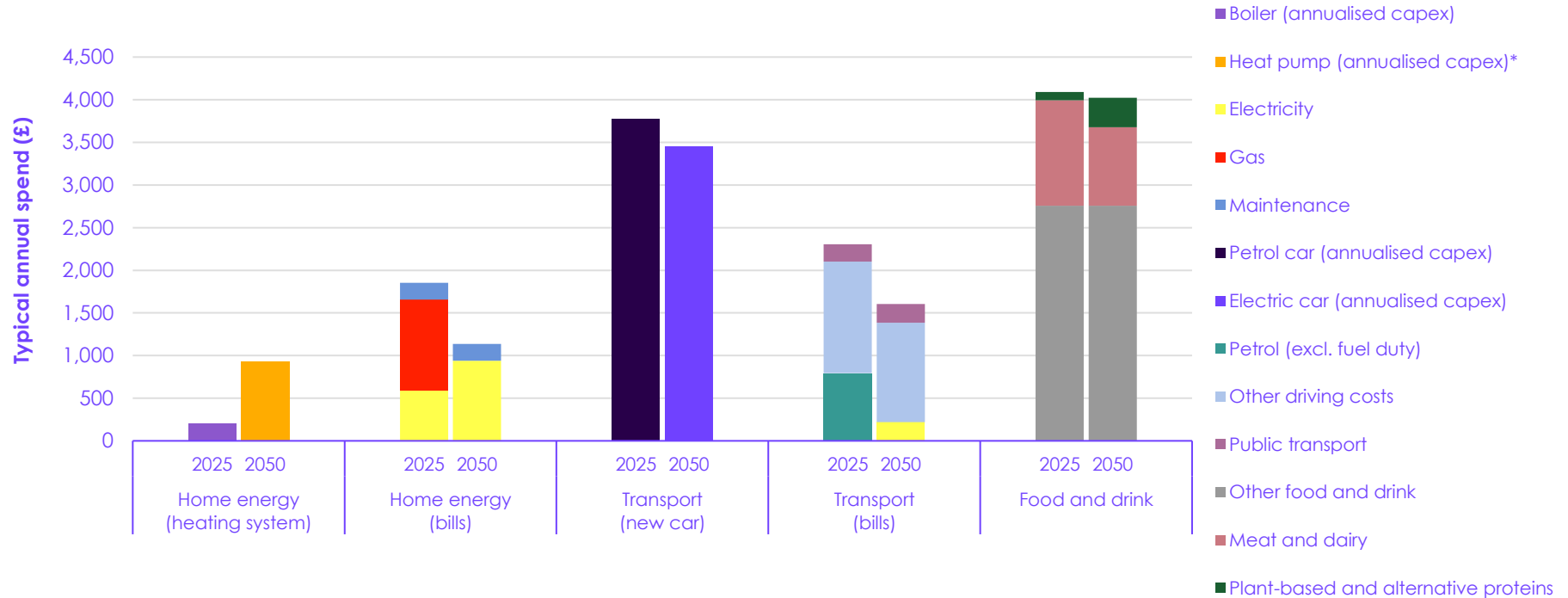
70% of that is from just two actions: switching to an EV and a heat pump



Source: CCC analysis.

A 'typical' household's annual spend on home energy, transport, and food in 2025 and 2050

This is without further policy support

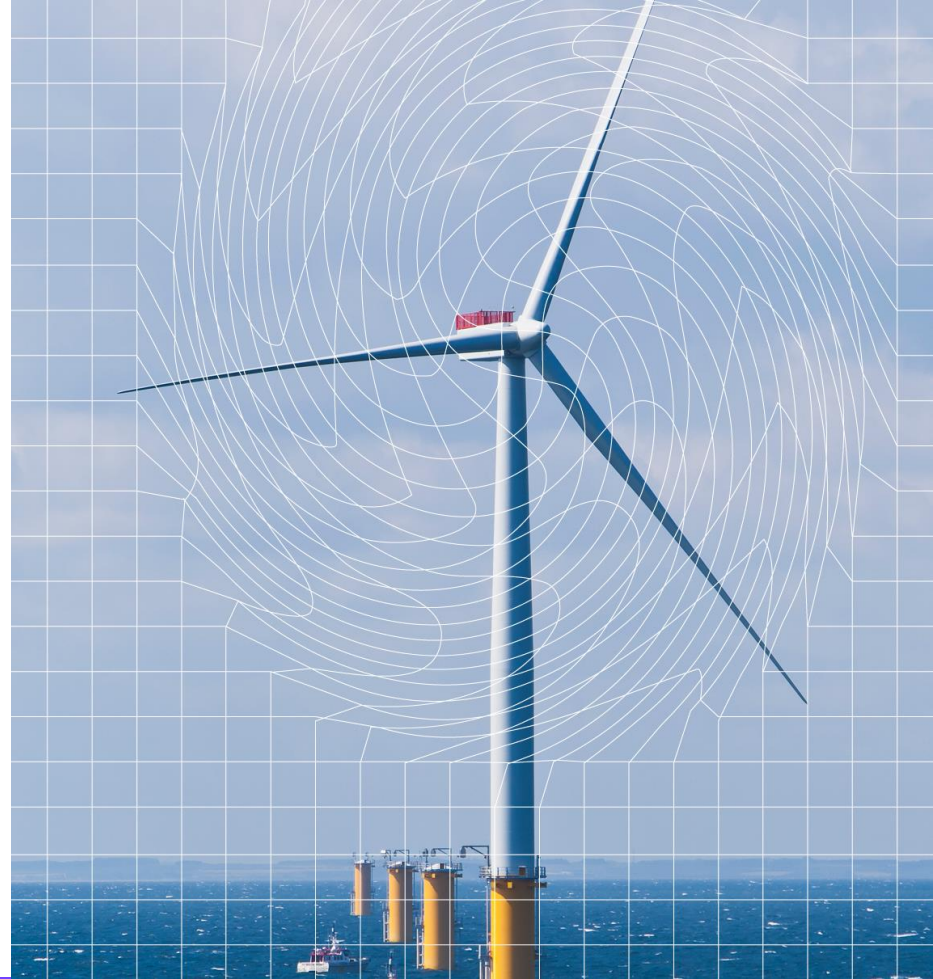


Source: CCC analysis

Key actions

The report includes 43 recommendations, with seven core themes

- Making electricity cheaper
- Supporting households to install low-carbon heating
- Removing barriers
- Providing certainty
- Setting out how government will support businesses
- Enabling the growth of skilled workforces and supporting workers in the transition
- Implementing an engagement strategy



What happens next?

Seventh Carbon Budget

- **26 February.** Publication of our advice report.
- **21 May.** Publication of our methodology report.
- **By 30 June 2026.** Government required to legislate CB7.

Other upcoming CCC reports

- **19 March.** Carbon budget advice for Northern Ireland.
- **30 April.** Adapting to climate change progress report (England).
- **14 May.** Carbon budget advice for Wales.
- **21 May.** Carbon budget advice for Scotland.
- **25 June.** UK's progress report in reducing emissions.
- **H1 2026.** Independent assessment of UK Climate Risk – CCRA4-IA.

Climate Change Committee
www.theccc.org.uk