

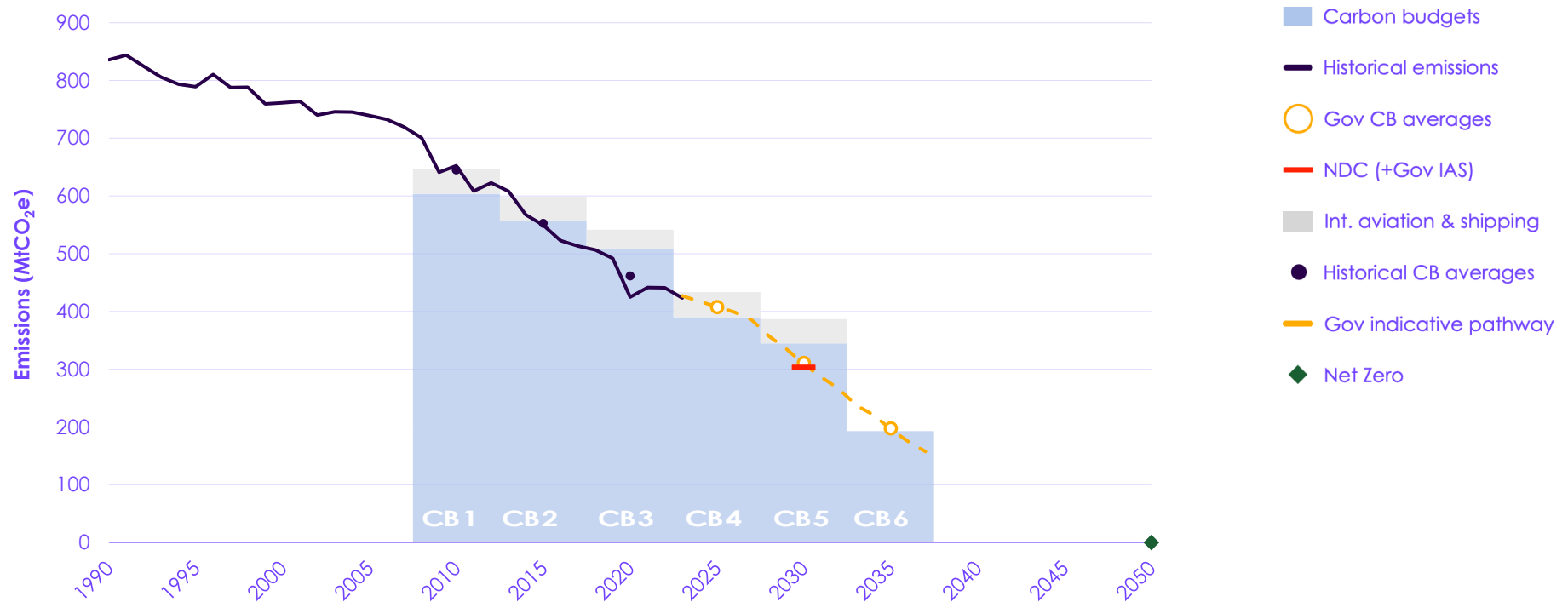
18 September 2024

# Net Zero: progress to date

Dr James Richardson

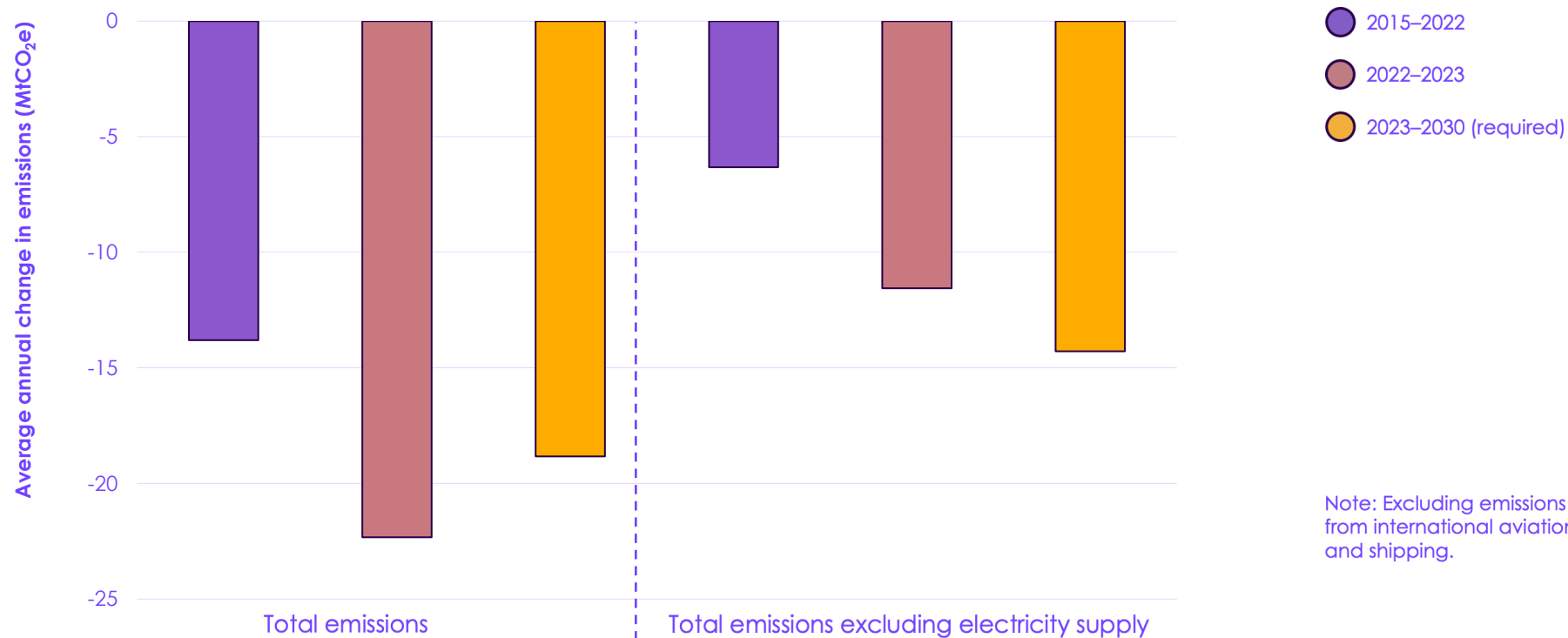
# The UK has met the first three carbon budgets

## But the future targets are more challenging



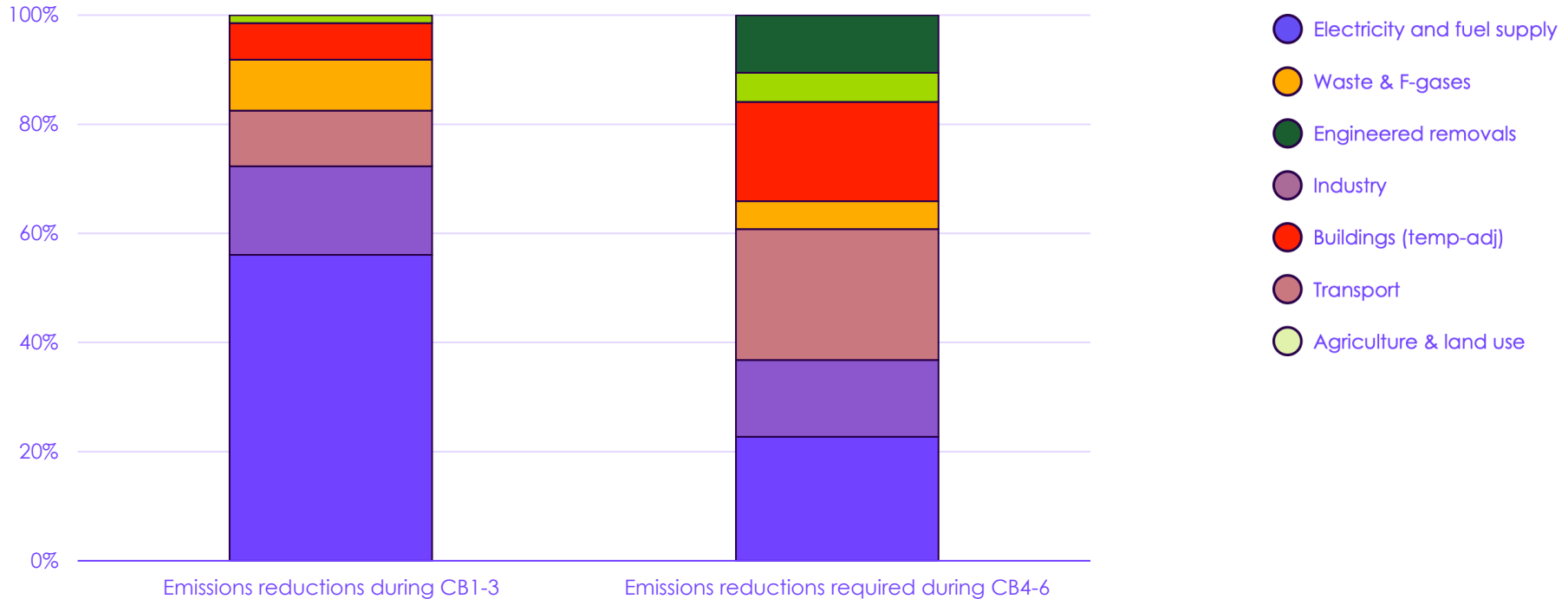
# Emissions reductions will need to increase to reach the UK's 2030 target

While emissions fell substantially in 2023, the long-term trend is less good



## Meeting the fourth, fifth and sixth carbon budgets will look different

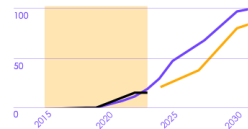
It requires greater contributions from transport, buildings, agriculture, land and removals



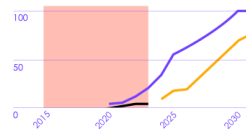
# Indicators

## Uptake of low-carbon technologies and nature-based solutions

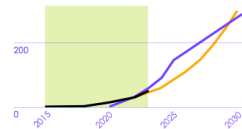
a) Battery electric car share of total sales (% of new car sales)  
Slightly off track



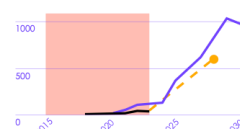
b) Battery electric van share of total sales (% of new van sales)  
Significantly off track



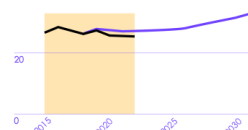
c) Public EV chargepoints (thousands)  
On track



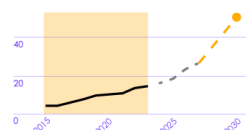
d) Heat pump installations (residential) (thousands)  
Significantly off track



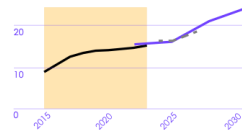
e) Electricity used in industry (% of total industry energy use)  
Slightly off track



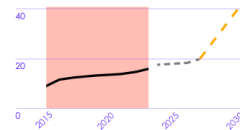
f) Offshore wind operational capacity (GW)  
Slightly off track



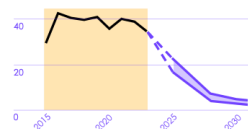
g) Onshore wind operational capacity (GW)  
Slightly off track



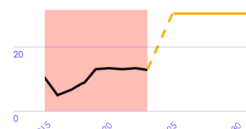
h) Solar operational capacity (GW)  
Significantly off track



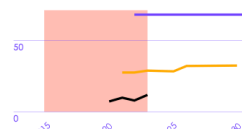
i) Unabated gas share of generation (% of total generation)  
Slightly off track



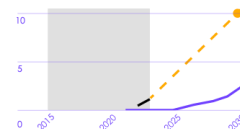
j) New woodland creation (kha/year)  
Significantly off track



k) Peatland restored (kha/year)  
Significantly off track



l) Sustainable Aviation Fuel share (% of total fuel)  
Too early to say



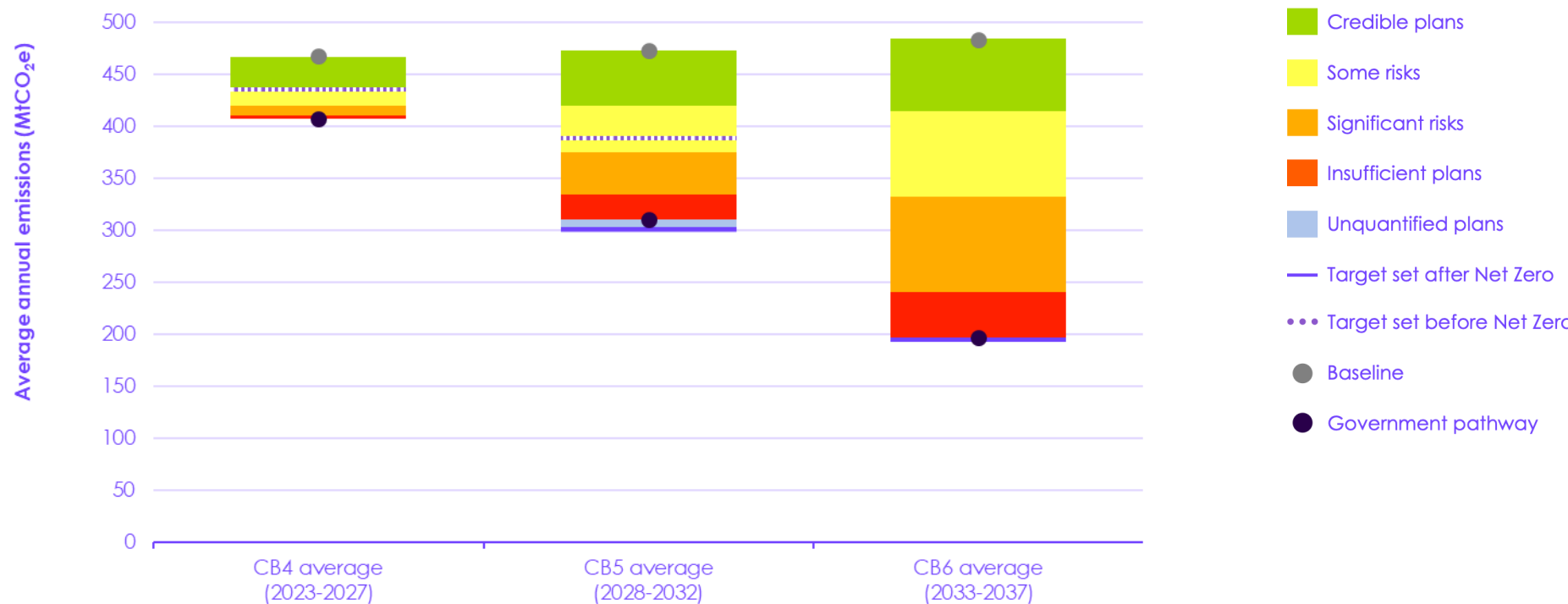
— Historical data

— CCC Balanced Pathway

— Government ambition

This year's policy assessment shows a slight increase in credible plans

But almost half the required emissions reduction to meet the 2030 target has insufficient plans or carries significant risk



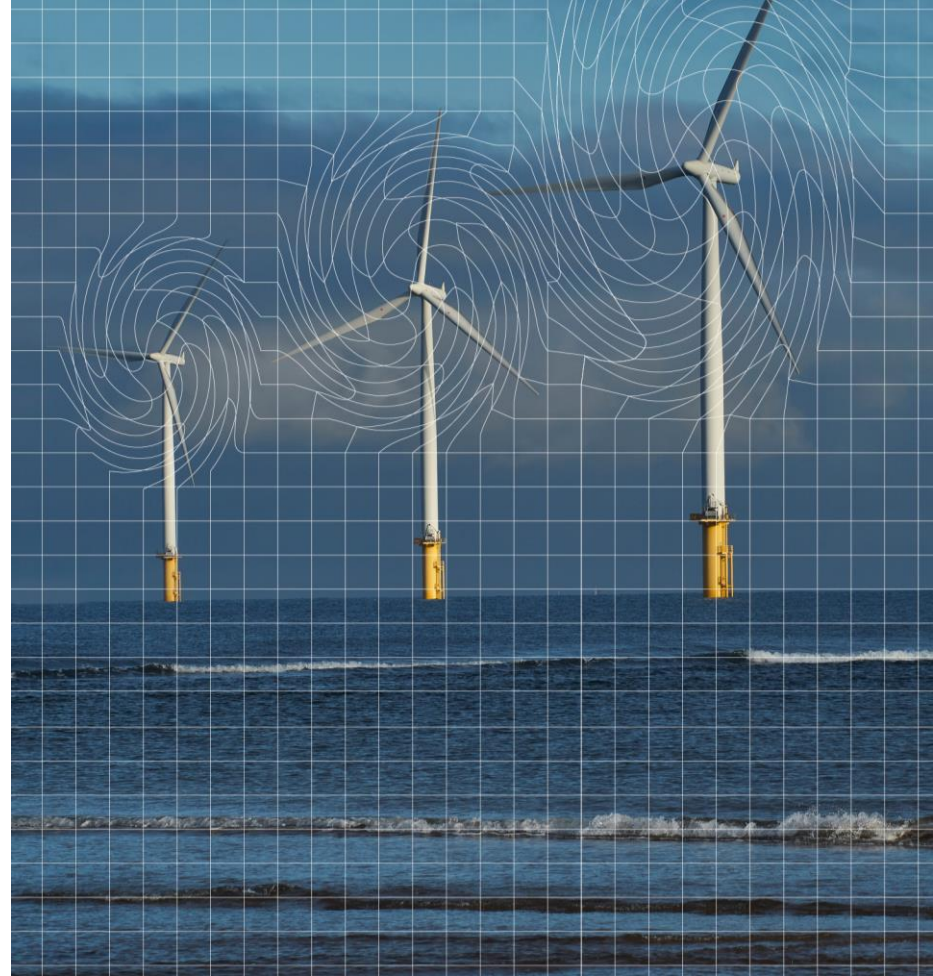
# Markets alone will not yet drive the Net Zero transition

Costs for some key technologies are lower than ever

But not yet at the point where markets alone will deliver

## **Policy is needed to:**

- provide confidence to investors and consumers
- manage risks in new markets
- remove barriers to delivery
- in some cases, provide financial incentives, especially in home heating



# Recommendations

1. Make electricity cheaper
2. Reverse recent policy rollbacks
3. Remove planning barriers for Heat Pumps and EVs
4. Comprehensive programme to decarbonise public buildings
5. Effectively design and implement CfD auctions
6. Accelerate electrification of industrial heat
7. Ramp up tree planting and peatland restoration
8. Finalise business models for engineered removals
9. Publish a strategy to support skills
10. Strengthen National Adaptation Plan

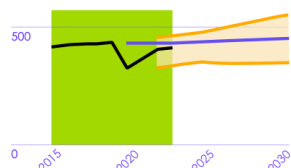


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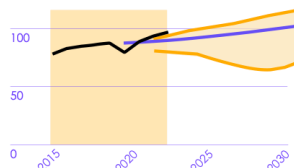
# Indicators

## Demand for high-carbon activities

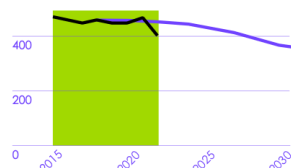
a) Km travelled by cars  
(billion vehicle-km)  
On track



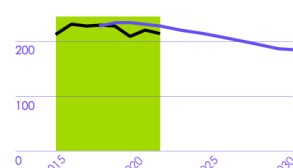
b) Km travelled by vans  
(billion vehicle-km)  
Slightly off track



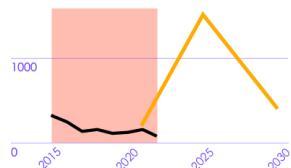
c) Final energy demand in  
residential buildings (TWh)  
On track



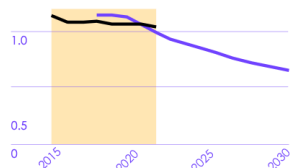
d) Final energy demand in  
non-residential buildings (TWh)  
On track



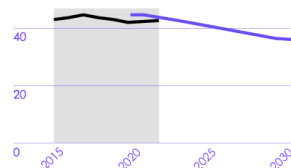
e) Households receiving energy  
efficiency measures (thousands)  
Significantly off track



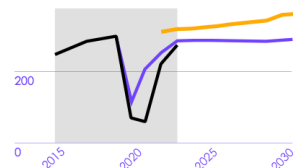
f) Energy consumption per unit  
of GVA in industry (TWh/GVA)  
Slightly off track



g) Number of livestock (Cattle  
and sheep) (millions)  
Too early to say



h) Airport terminal passengers  
(millions)  
Too early to say



— Historical data

— CCC Balanced Pathway

— Government ambition

Policies in transport and industry have improved our assessment for the 2030 target

But this has been undermined by negative developments, particularly in buildings

