

# Net Zero – UK Progress

11<sup>th</sup> October 2023

Foundation for Science and Technology

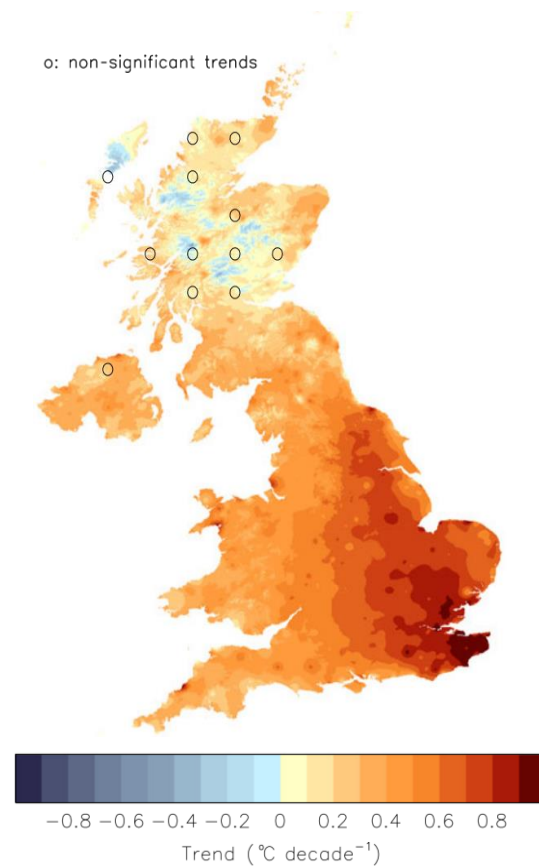
Julia King, Baroness Brown of Cambridge

# Recent UK experience

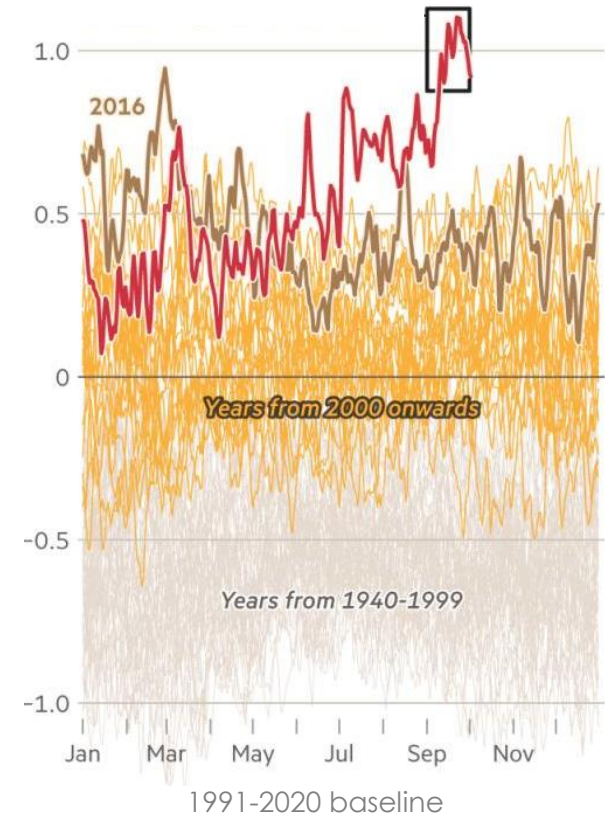
Hottest 10 years.....

- 2018 heatwave summer typical by 2050
- Record UK temperature 40.3°C in 2022
- Record September 2023 temperatures of over 32°C
- Average temperatures in Europe rising 0.5° per decade - double the global average (WMO 2022)

Rate of increase in hottest daytime temperatures (1960 to 2019)

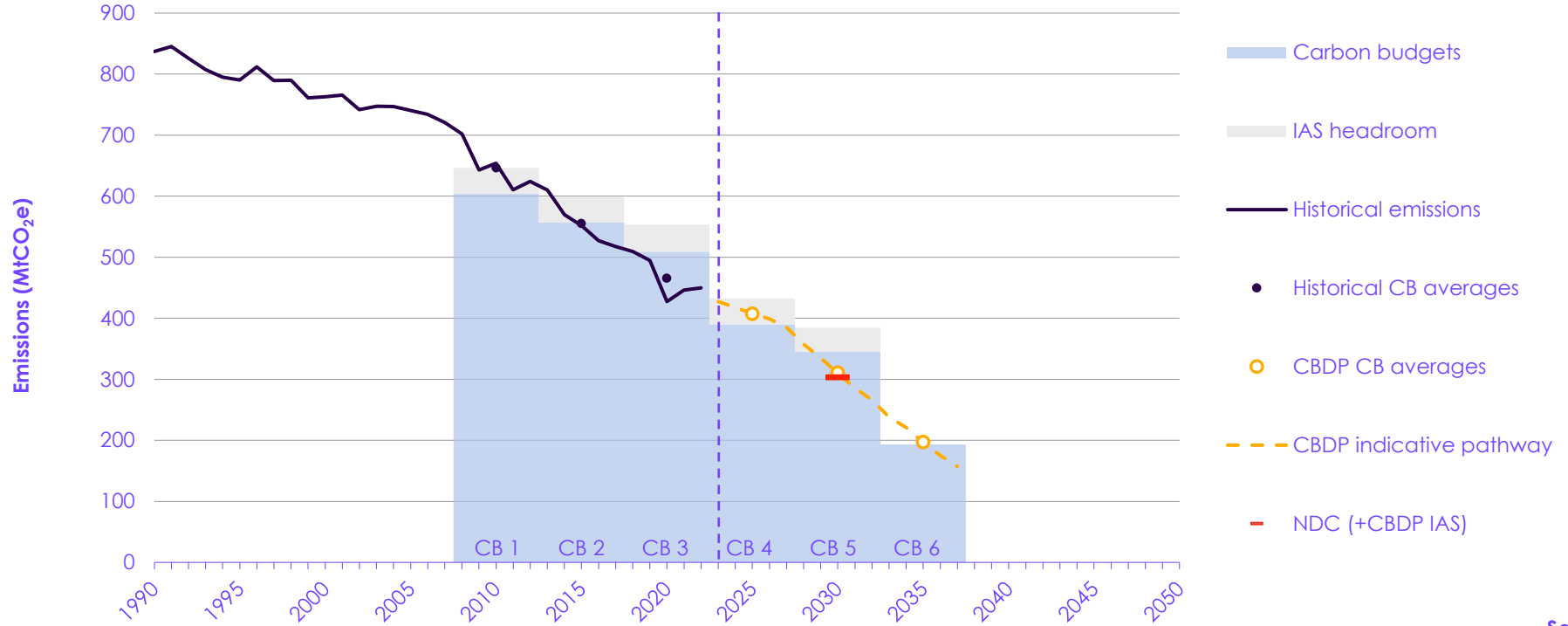


2023 hottest September globally  
1.75° above pre-industrial  
0.93° above monthly average



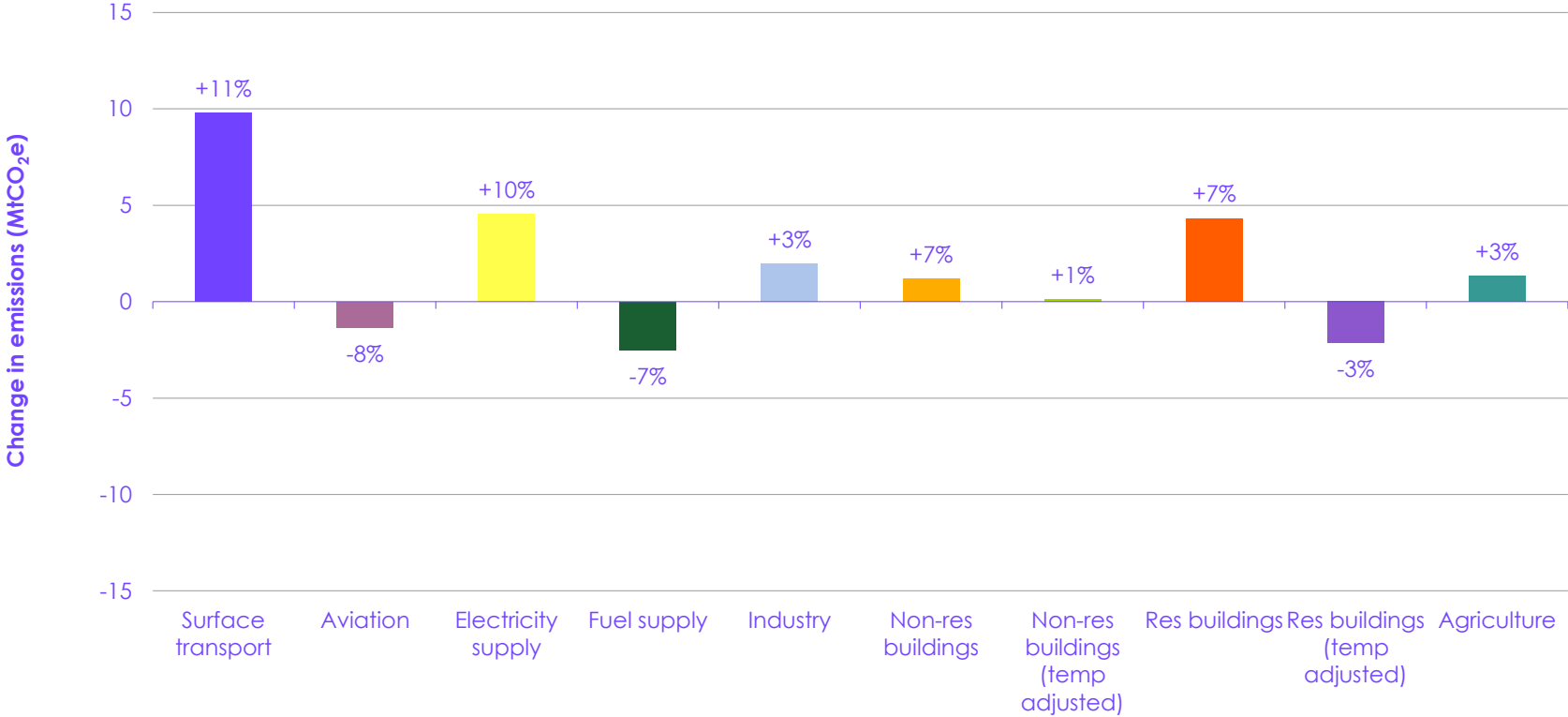
# UK emissions and legal targets

Emissions are below pre-pandemic levels, but the path ahead is much tougher



Source  
CCC analysis

# Post-pandemic emissions 2020 to 2021



Source  
CCC analysis

# Post-pandemic emissions 2021 to 2022

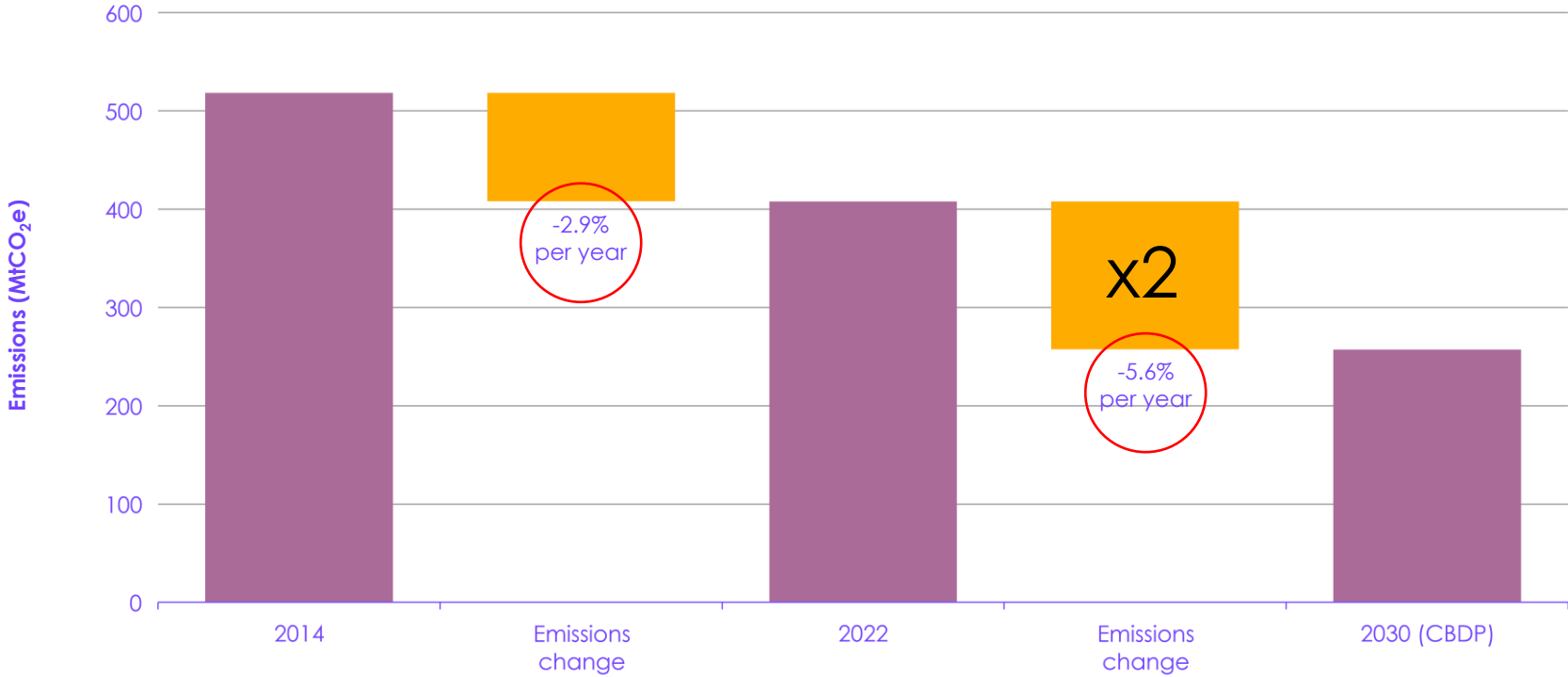


Source  
CCC analysis

# 2030 goal

# 2030 goal – looking back 8 years and forward 8 years

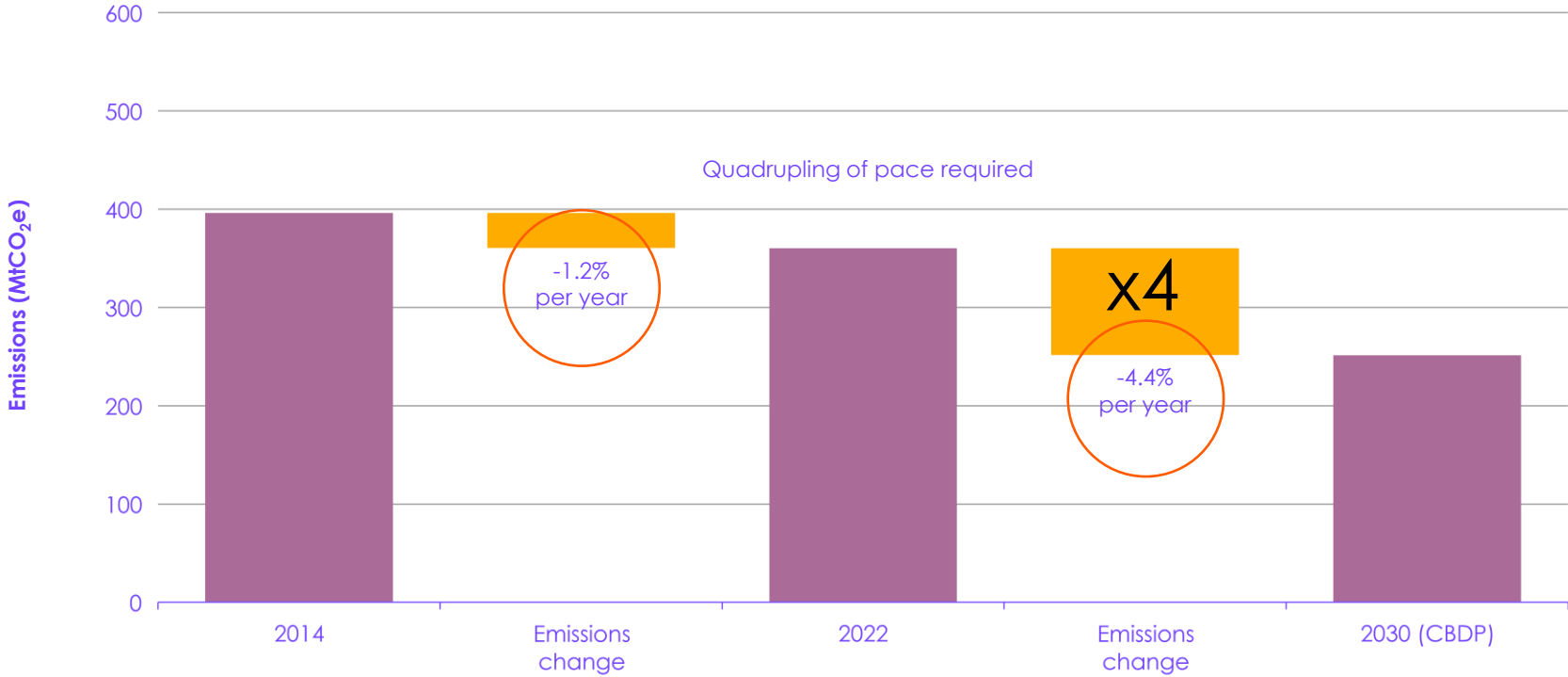
## Total emissions excluding shipping and aviation



Source  
CCC analysis

# 2030 goal – looking back 8 years and forward 8 years

## Total emissions excluding shipping, aviation and electricity supply

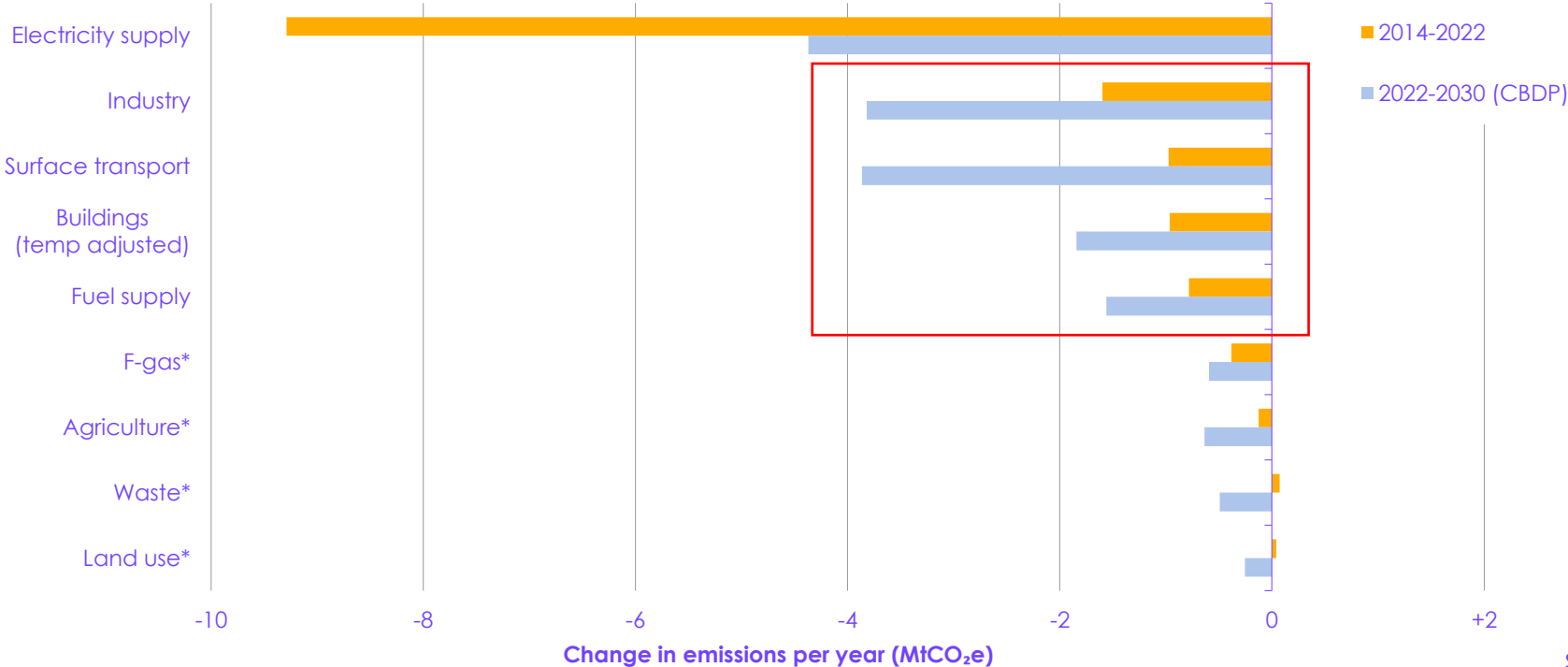


Source  
CCC analysis



# 2030 goal – looking back 8 years and forward 8 years

## Change in UK emissions per year by sector

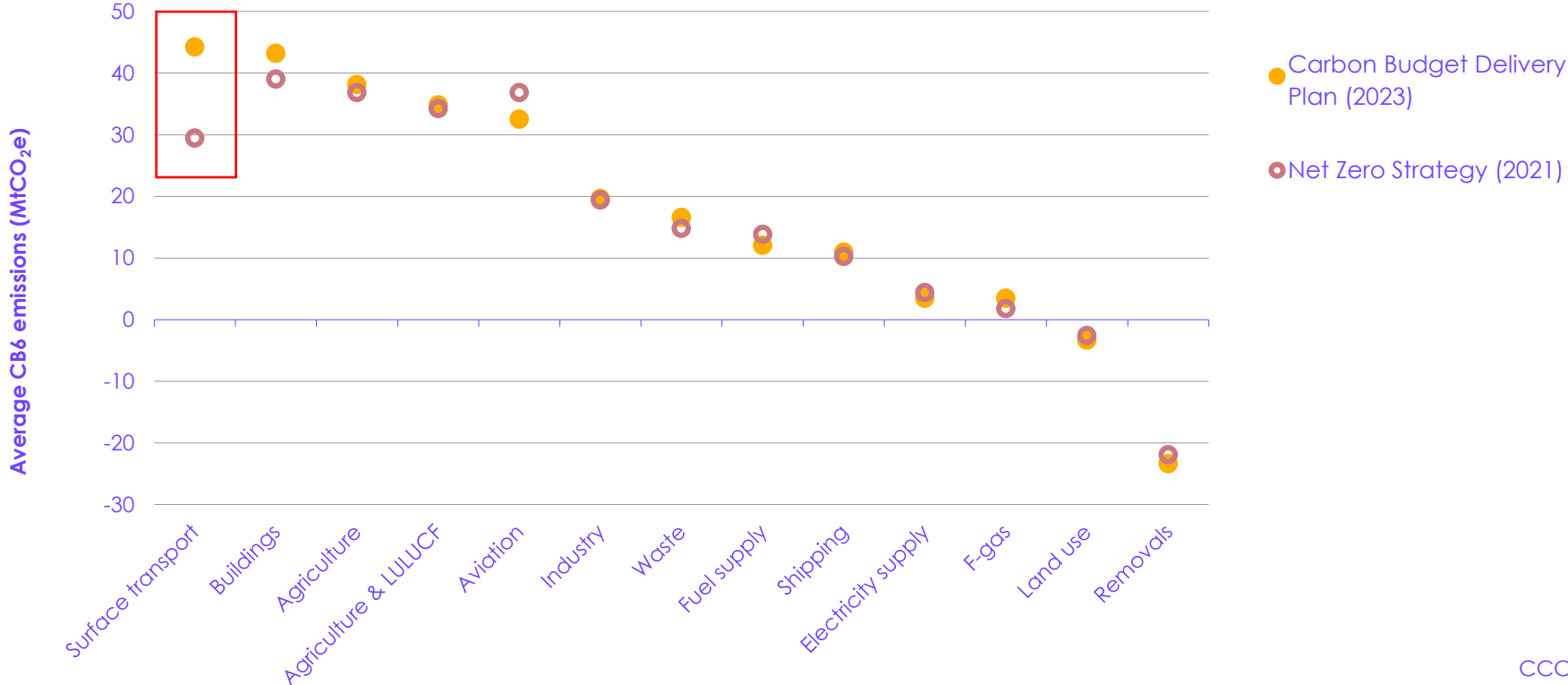


Source  
CCC analysis

# Assessing the state of policy progress

# Assessing the state of policy progress

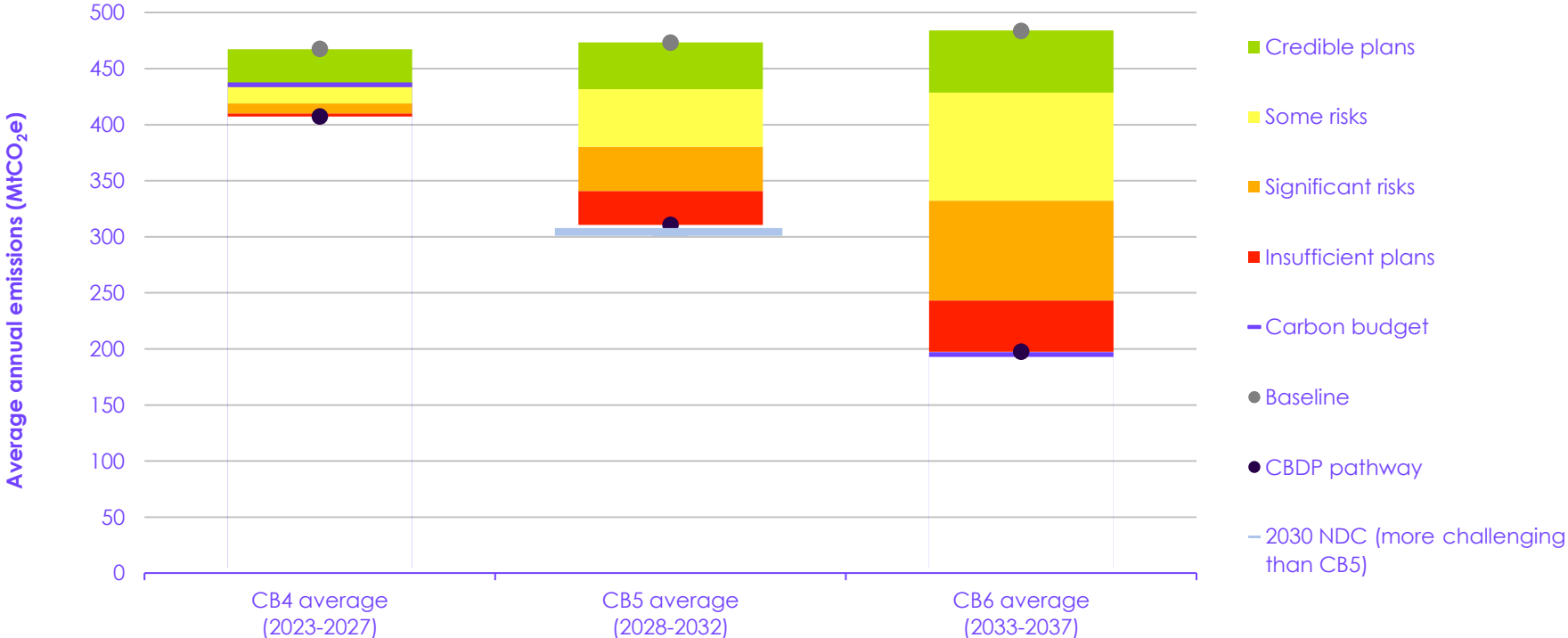
## Comparing the Carbon Budget Delivery Plan (2023) with the Net Zero Strategy (2021)



Source  
CCC analysis

# Assessing the state of policy progress

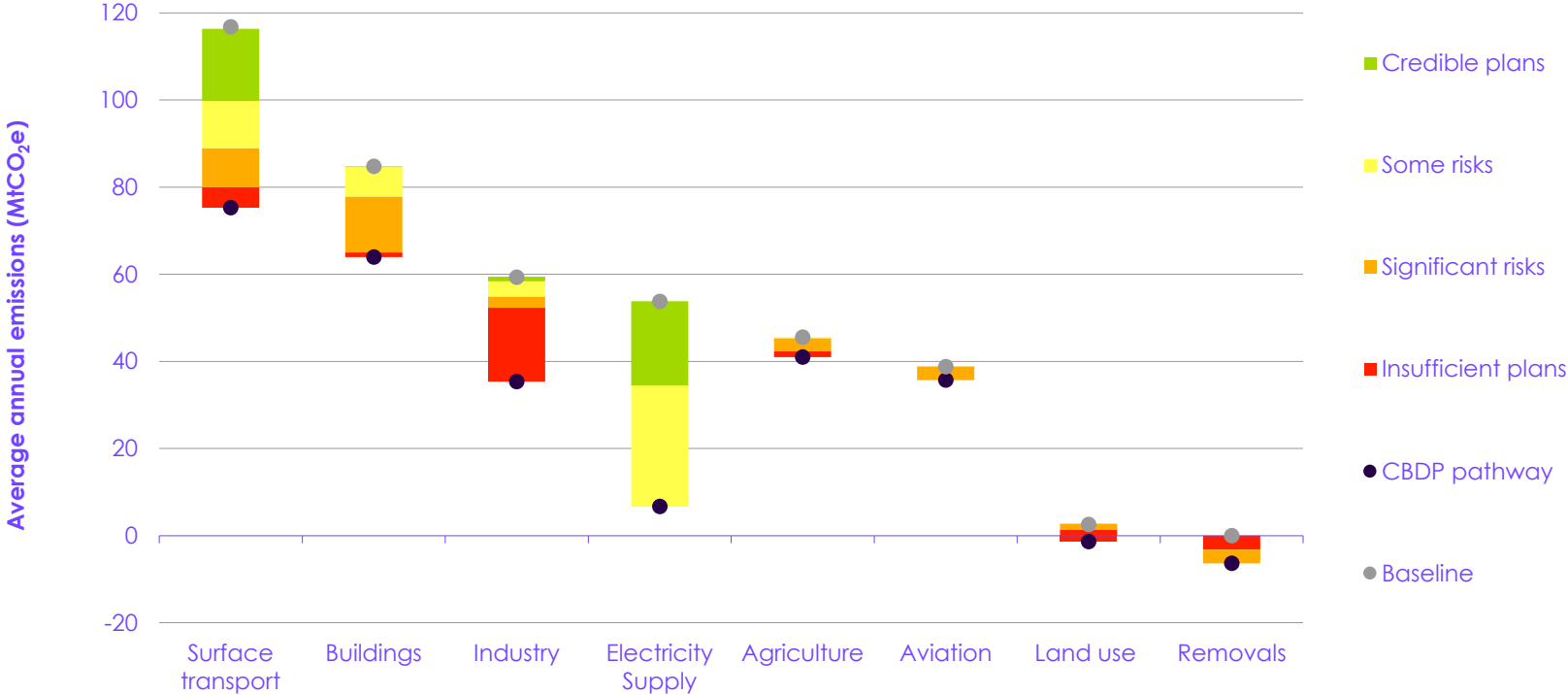
## Overall assessment of policies and plans



Source  
CCC analysis

# Assessing the state of policy progress

## Assessment for the 2030 goal for key sectors

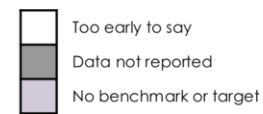
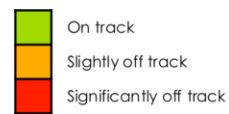


Source  
CCC analysis

# Progress in the real world

# Progress snapshot in key sectors

## Summary of progress against key indicators



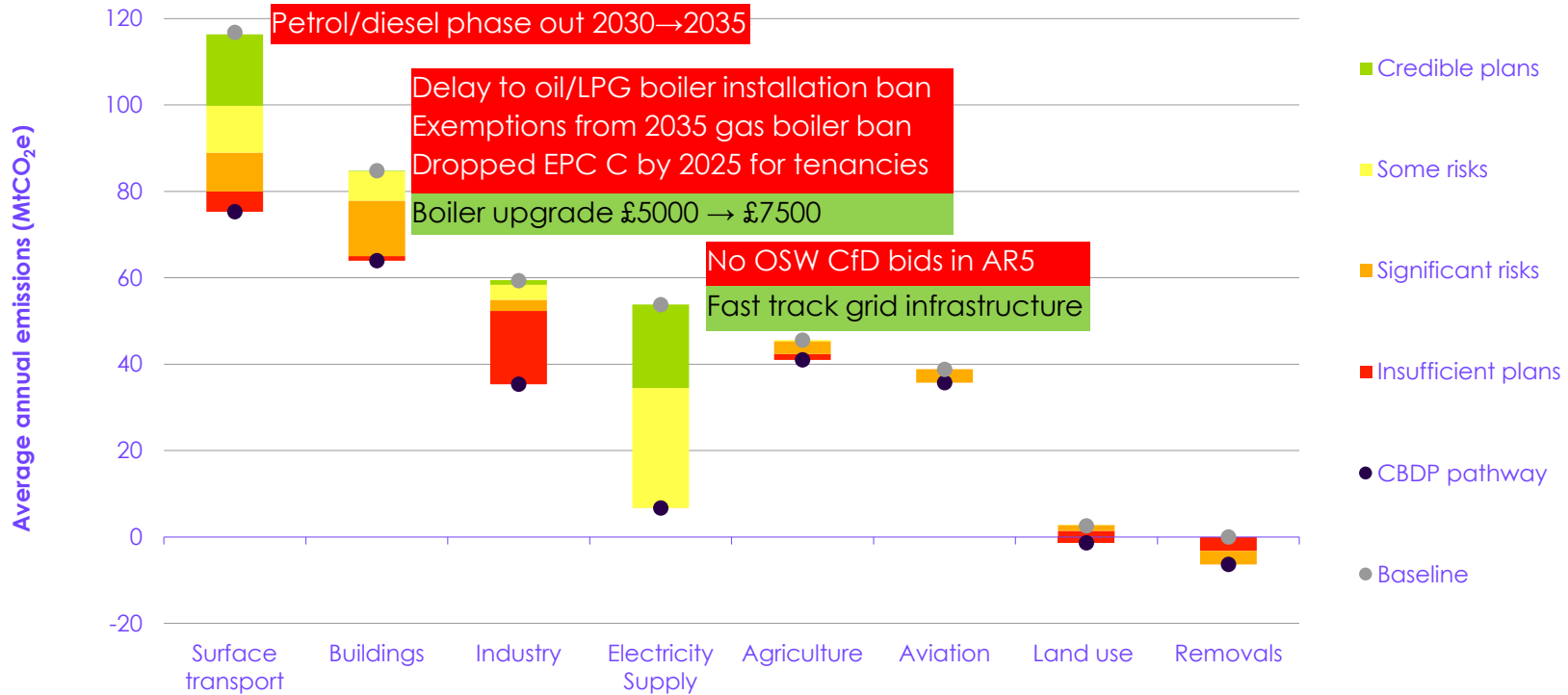
Surface transport	Energy supply	Buildings	Industry	Agriculture and land
Electric car sales	Grid storage	Electricity to gas price ratio	Bioenergy use in industry	Livestock numbers
Battery cell prices	Dispatchable low-carbon capacity in development	Greening Government Commitments	Electricity use in industry	Livestock exports
Petrol/diesel car intensity	Offshore wind	Low-carbon share of heat supply	Energy consumption per unit of GVA	Food waste
Petrol/diesel van intensity	Onshore wind	Energy efficiency measures	Private sector targets	Woodland management
Van km	Unabated gas	Heat pump installations	Industrial process emissions	Crop yields
HGV km	Refineries emissions	Heat pump costs	Hydrogen use in industry	New woodland
Electric van sales	Solar PV	Trained heat pump installers	Pipeline of hydrogen projects	Peatland restoration
Car km	Active demand response	Residential energy demand	Industrial energy efficiency	Anaerobic digestion uptake
Public charge points	Low-carbon hydrogen production	Non-residential energy demand	Pipeline of Industrial CCS projects	Energy crops
Public transport demand	Oil and gas production emissions	Non-residential buildings energy intensity	Industry consumption emissions	Meat consumption

# Recent developments



# Assessing the state of policy progress

## Recent changes: Prime Minister's September speech, AR5 CfD competition



Source  
CCC analysis



# Mitigation AND Adaptation