

Can Britain meet the climate change challenge?

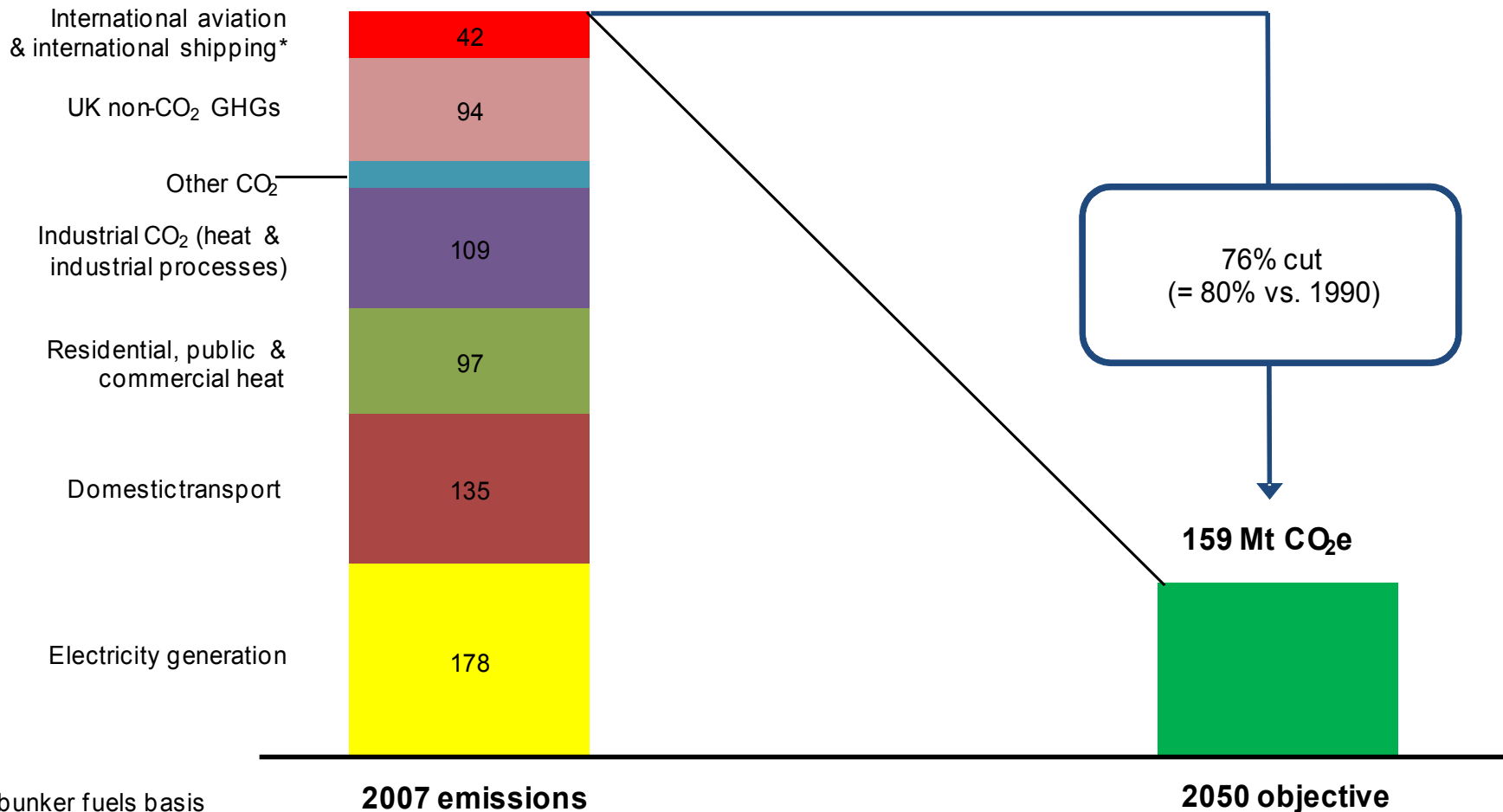
Climate Change Partnership
for Yorkshire and Humber
23 April 2010

Adrian Gault
Chief Economist
Committee on Climate Change

- The UK Climate Change Act
- The Committee on Climate Change
- Past and current emission trends (1990-2009)
- Meeting the carbon budgets (2010 – 2022)
 - Power
 - Residential energy efficiency
 - Road transport

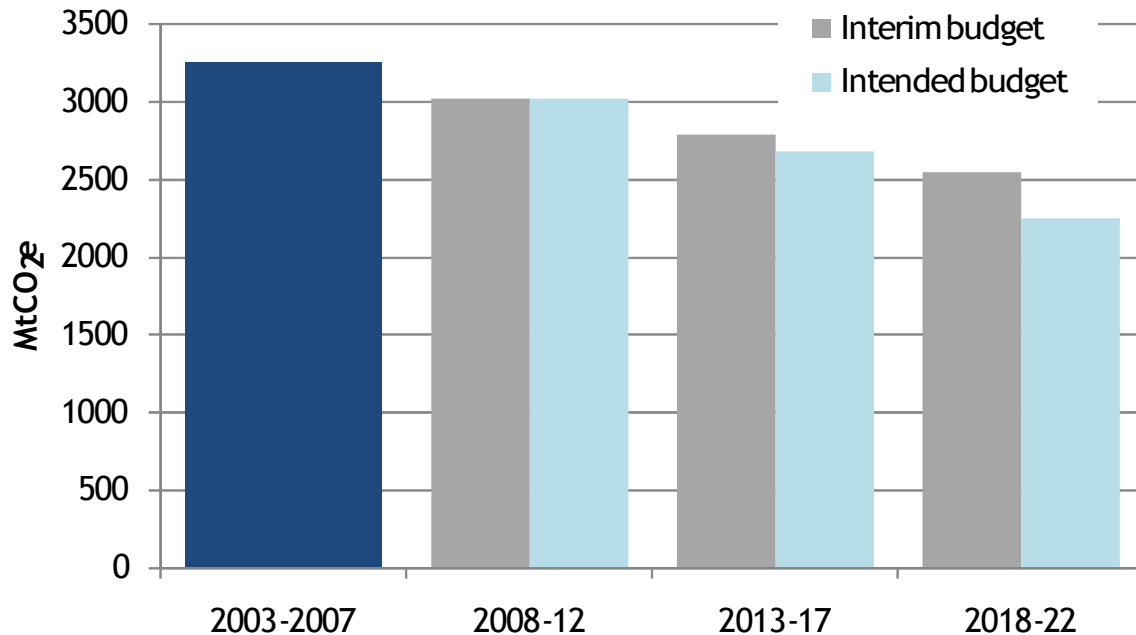
The Climate Change Act requires emission cuts of at least by 80% by 2050

679 Mt CO₂e



Mandatory five-year carbon budgets put the UK on track for the 2050 target

Budgets for 2008-2022 legislated in spring 2009



Interim: 34% cut in GHGs by 2020, relative to 1990 (20% from 2007)

Global deal

Intended: 42% cut in GHGs by 2020 relative to 1990 – to be reviewed in 2010 (29% from 2007)

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Committee on Climate Change



The Committee on Climate Change (CCC)



An independent body to provide advice to Government on carbon budgets and report to Parliament on progress made

An eight-member Committee, chaired by Lord Adair Turner and supported by a 30-staff secretariat

Jointly sponsored by the Department for Energy and Climate Change and the Devolved Administrations

Climate Change Act 2008

Committee on Climate Change

Advice on carbon budgets

Annual report on progress

Ad hoc requests for advice

The Adaptation Sub-Committee (ASC)

An independent body of experts with a statutory role to advise on:

- preparation of the first UK Climate Change Risk Assessment
- implementation of Government's Adaptation Programme (for England and reserved matters)
- requests from the national authorities

Climate Change Act 2008

Adaptation Sub-Committee

Climate Change Risk Assessment

National adaptation programme

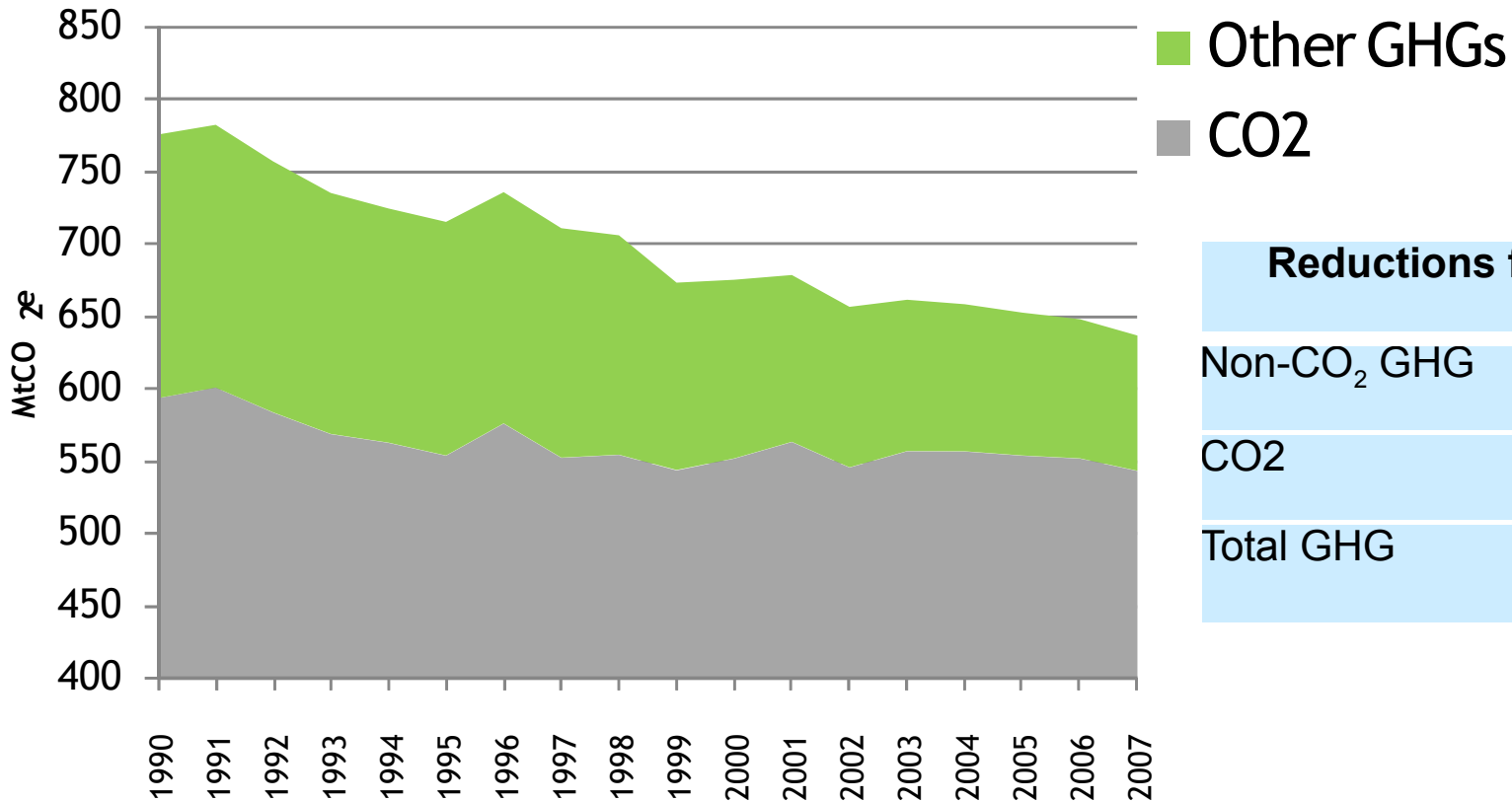
Ad hoc requests for advice

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In 2007 UK greenhouse gas emissions were 18% lower than in 1990

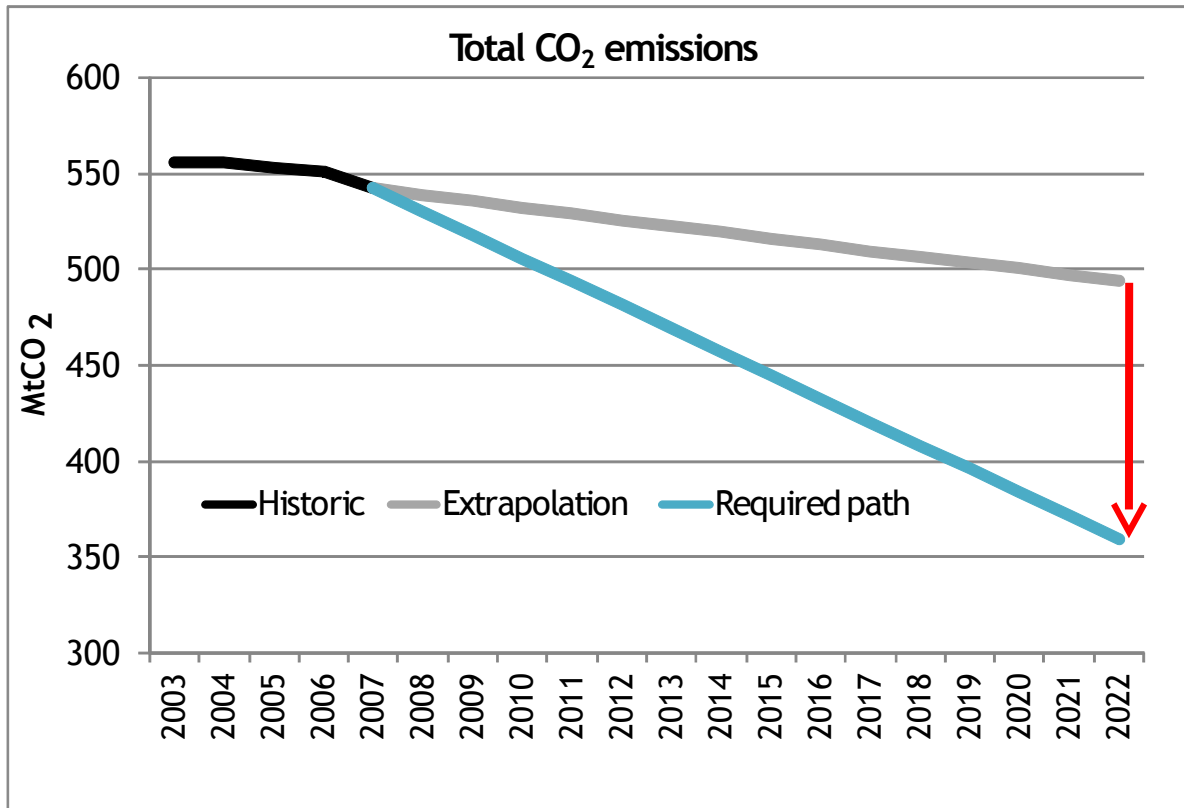


UK GHG emissions 1990-2007



Reductions from 1990	
Non-CO ₂ GHG	49%
CO ₂	8%
Total GHG	18%

Meeting budgets requires a step change relative to recent progress



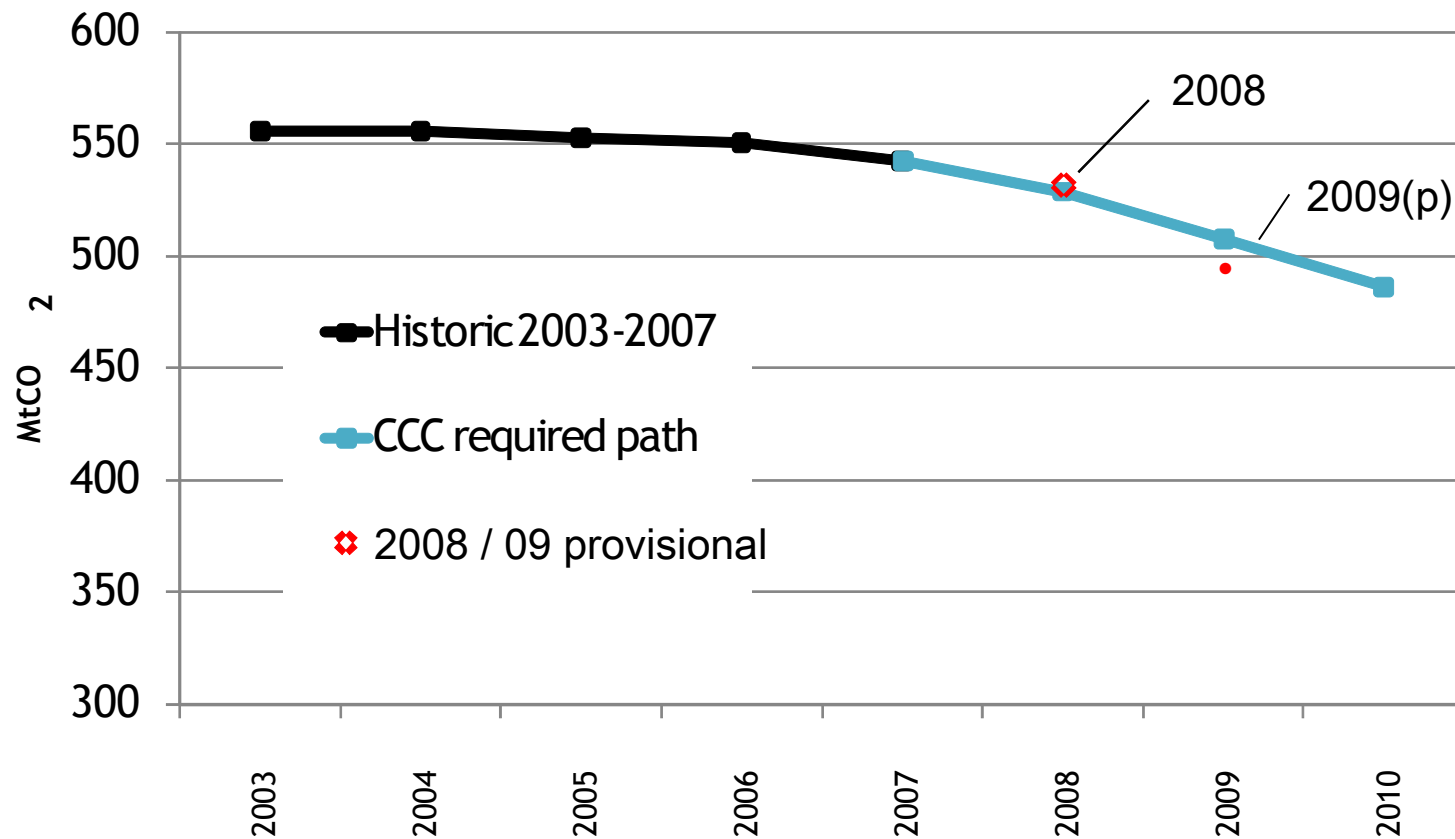
CO₂ emissions fell 0.5% annually 2003-07

Cuts of **2-3%** p.a. are required through first three budgets

A major shift in the pace of reduction is therefore required across **all** sectors

Recession has caused a sharp cut in emissions, but has not delinked emissions from GDP

2008/09 provisional CO2 emissions versus budget



Our first progress report draws **two main conclusions**

Recent emissions progress (2003-2007) was far slower than we now require

- Step change essential

Recession induced emissions reductions could:

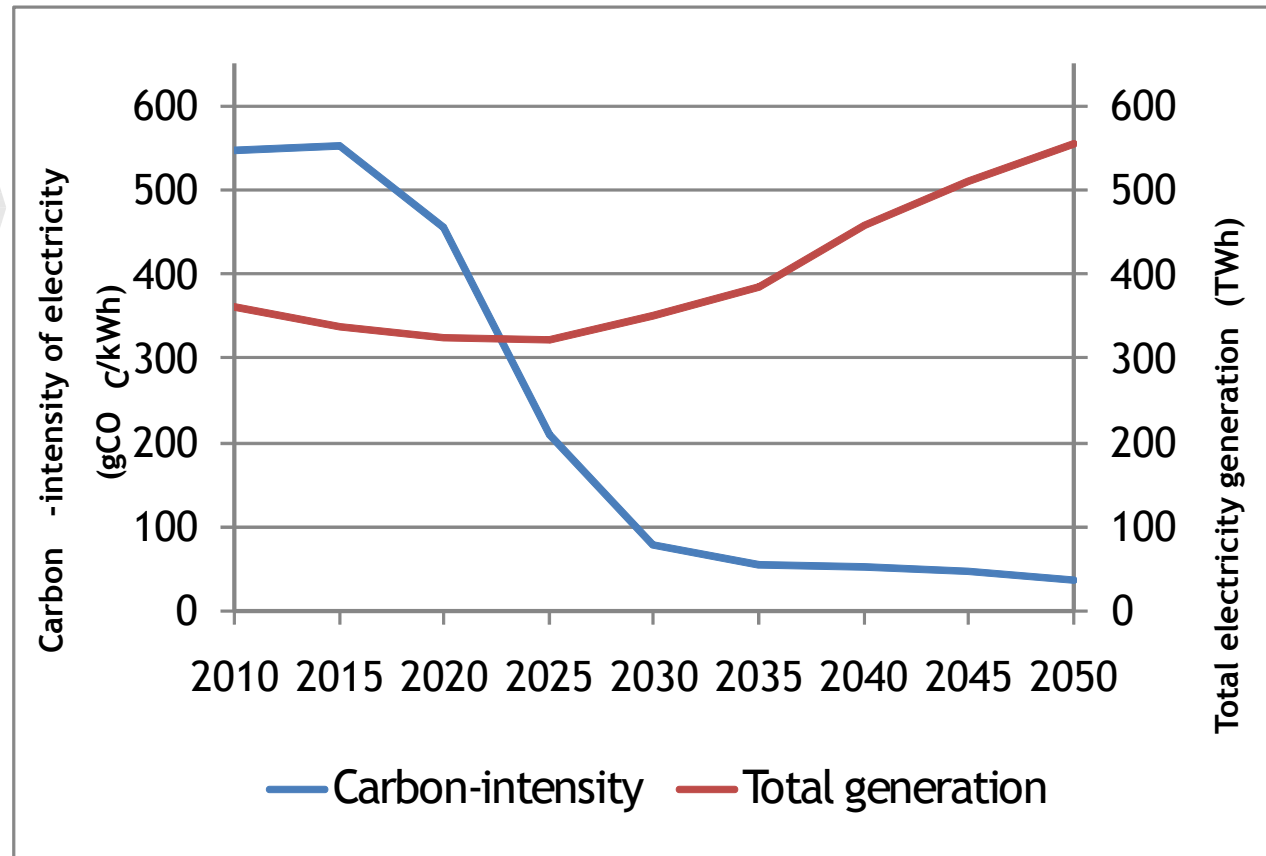
- Produce over rosy impression of progress
- Undermine long-term progress through lower carbon price

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Power is central to wider economy decarbonisation

The **electrification** of other sectors will see demand increase in 2020s and 2030s

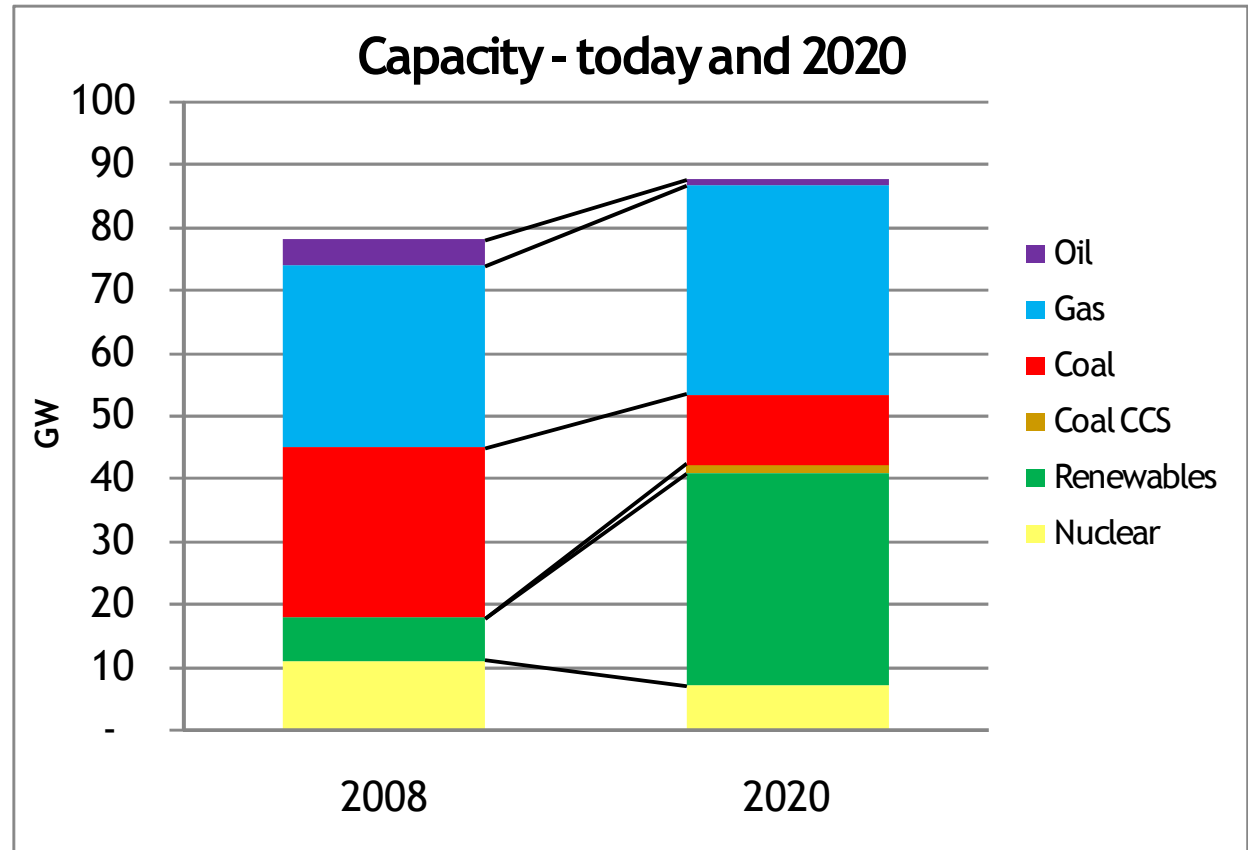
Therefore we need to **significantly** decarbonise electricity generation by 2030



Over next decade we need to deliver significant investment in low-carbon generation

Current energy market and regulatory arrangements may have to be revised :

- Strengthen the carbon price
- Provide confidence in price of low-carbon power
- Ensure investment in low carbon capacity



The main policy instrument is the **Carbon Emissions Reduction Target (CERT)** which puts an obligation of energy suppliers to deliver carbon savings



In 2008 CERT delivered:

- **153 million** compact fluorescent lightbulbs (6 per household)
- **690,000** loft insulation measures
- **550,000** cavity wall insulation measures
- **8,600** solid wall insulation measures

A major shift in ambition is needed

Insulation measures	Total needed to achieve carbon budgets (from 2008)	Delivered under CERT in 08/09	Installations needed per year to achieve carbon budgets
Lofts	10 million (by 2015)	0.7 million	1.3 million
Cavity walls	7.5 million (by 2015)	0.5 million	1 million
Solid walls	2.3 million (by 2022)	8600	165,000

Three pillar approach:

- **Whole house approach:** one stop shop covering all cost effective measures
- **Neighbourhood approach:** national government leadership, (e.g. strategy, legislation); area-based delivery with key role for local government and energy companies. Need to regulate private rented sector
- **Financing:** pay as save with some grants/subsidies to encourage uptake amongst fuel poor and more generally

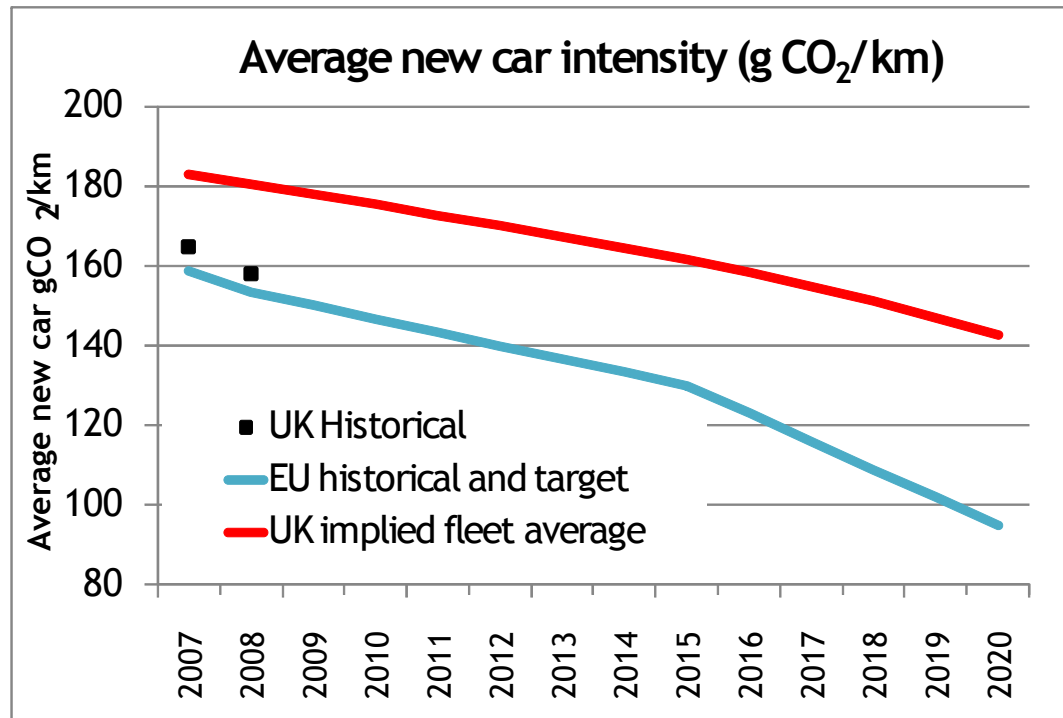
Consumer behaviour change

(total savings over 13 MtCO₂)

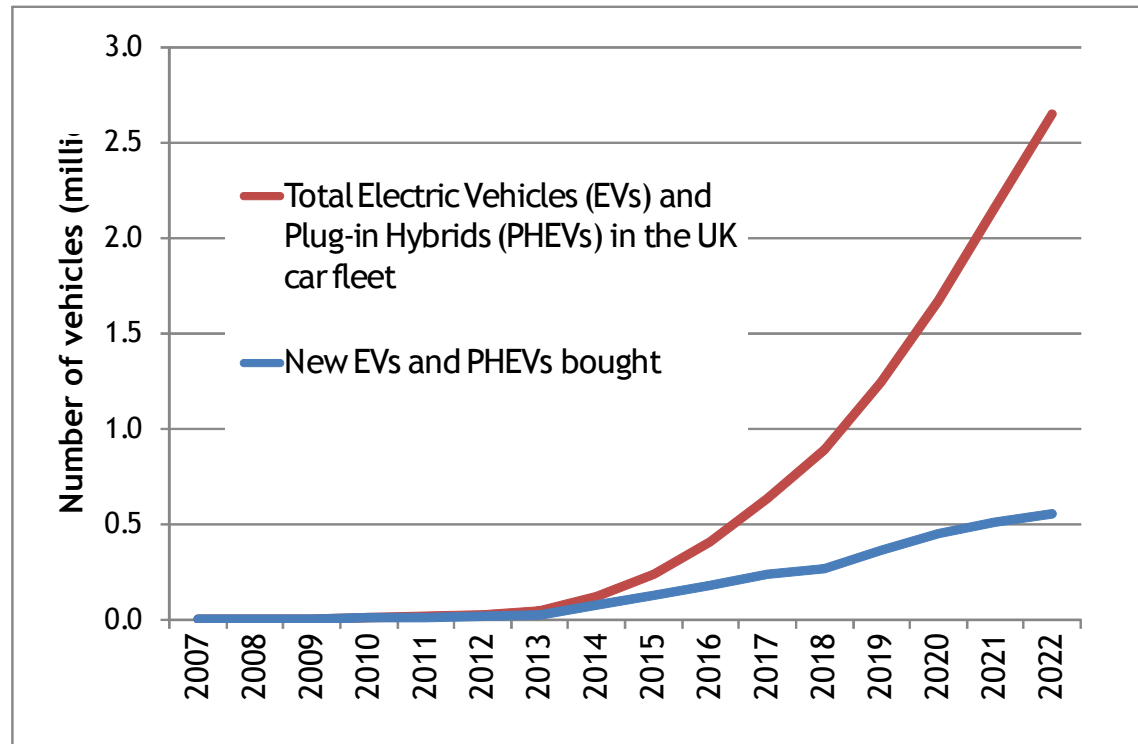
- Roll out of **Smarter Choices** based on Sustainable Travel Town pilots (3 MtCO₂)
- 4 million drivers trained and practising **eco-driving** by 2020 (1 MtCO₂)
- Enforce **speed limit** at 70 mph (1.4 MtCO₂)
- Integrated **transport and land use planning** strategy (2 MtCO₂)
- Road pricing could save additional 6MtCO₂ in 2020

Improving the car fleet

- Meet EU target for new car emissions of **130g/km** in 2015 and **95g/km** in 2020
- Would save **11MtCO₂** in 2020



- Models expected to come to market in next few years.
- Scope for substantial **battery cost reduction**.
- Government has committed price support of £2,000-5,000 per car totalling £230 million; CCC analysis suggests **up to £800 million may be required**.
- Government **support for development of charging infrastructure** is required.
- Pilot projects targeting 240,000 cars in 2015, on way to **1.7 million in 2020**.
- **Limited impacts on power networks to 2020**.



The Government's Response to the 1st annual progress report (January 2010)



- Agrees a step change in the pace of emissions reduction is needed
 - Takes forward plans set out in the Low Carbon Transition Plan
- Agrees the need to assess energy market arrangements - responded with initial findings at Budget 2010
- Agrees that the reduction in emissions associated with the recession should not be “banked”
- Commits to a similar approach to monitor progress as provided by the CCC's indicators. Indicator sets be published in the Spring when all Government departments published their “Carbon Reduction Delivery Plans”

- Ⓒ Progress report to Parliament (June 2010 - CCC)
- Ⓒ Review of low carbon R&D (Summer 2010 - CCC)
- Ⓒ Preliminary review of preparedness for climate change (November 2010 – ASC)
- Ⓒ Advice on the fourth budget, including review of latest science and implications of Copenhagen (CCC - December 2010)

Can Britain meet the climate change challenge?

for more information visit

www.theccc.org.uk