

Independent advice to government on building a low-carbon economy and preparing for climate change

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Le modèle britanique

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The Climate Change Act 2008

1 A goal 2050 Emissions Target

2 A pathway Carbon budgets

Requirement that Government brings forward policies to reduce emissions & address climate risks

A monitoring Committee on Climate Change and Adaptation-Sub Framework Committee to monitor progress and propose change



CCC appointed to recommend targets and monitor progress



Lord Deben



Baroness Brown



Professor Sir Brian Hoskins



Professor Jim Skea



Professor Nick Chater



Professor Corinne Le Quéré



Paul Johnson



Dr Rebecca Heaton

Plus ~25 full-time secretariat annual budget of £3.5mi (\$CA 6mi) funded by the UK government



The role of the CCC

Recommend targets

Statutory advice on 2050 target & carbon budgets

Track progress

Towards targets & in key indicators to meet them

Adaptation

Advice on National Adaptation Programme

Independent & evidence-based

- Technical experts, not interest groups
- Own research budget

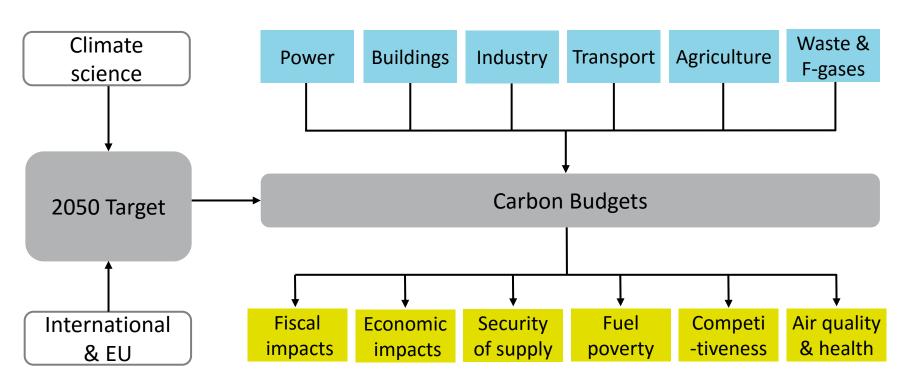
Transparent and open

- Reports & analysis made public
- Engage NGOs, business, academics, experts



5-year carbon budgets are evidencebased and take into account a range of factors across the economy

Sectors: scenarios, costs, required policy

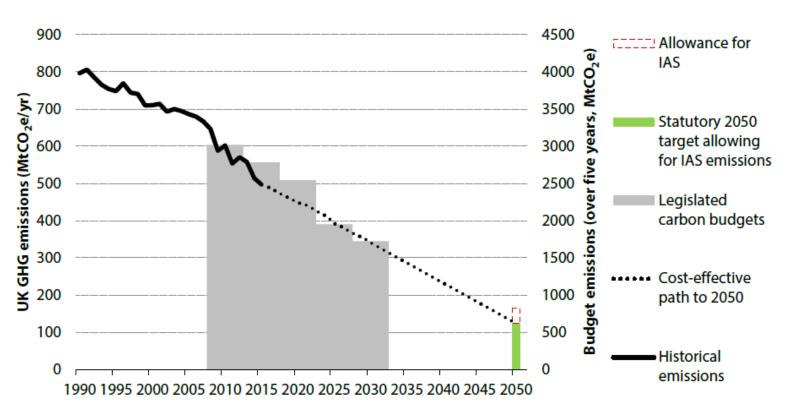


Budget impacts



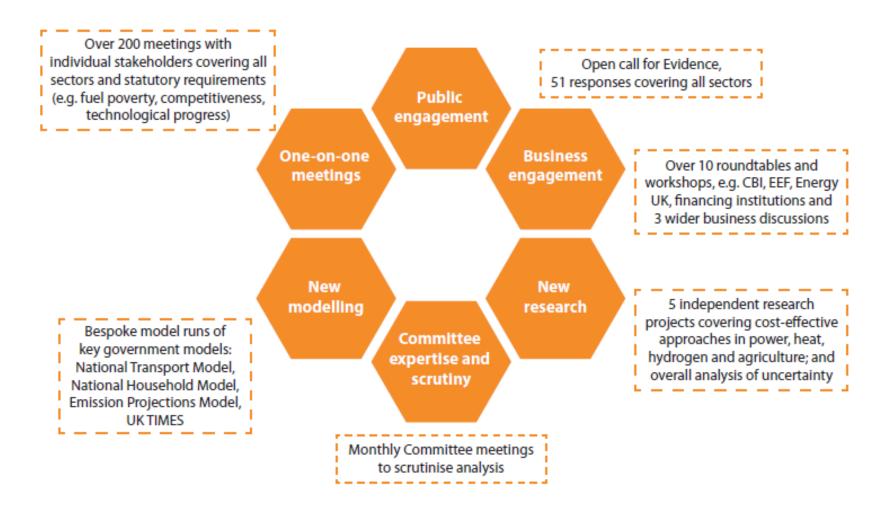
UK has 5 legislated carbon budgets that are stepping stones to 2050 80% target

Carbon budgets and the cost-effective path to the 2050 target



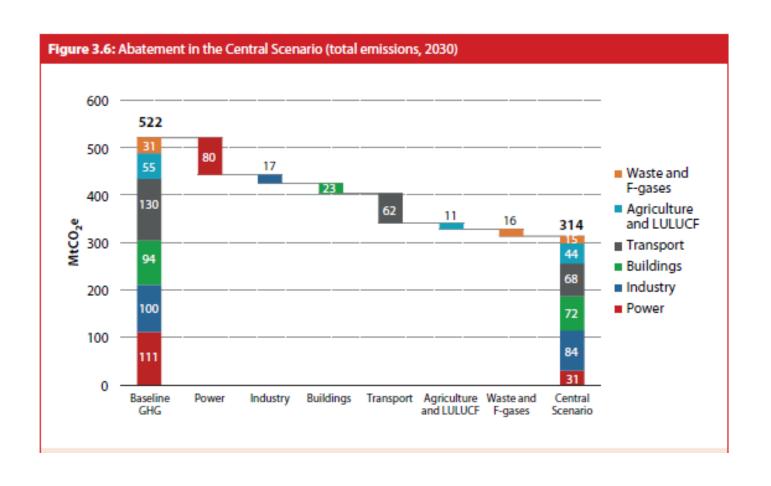


Example – The 5th carbon budget advice





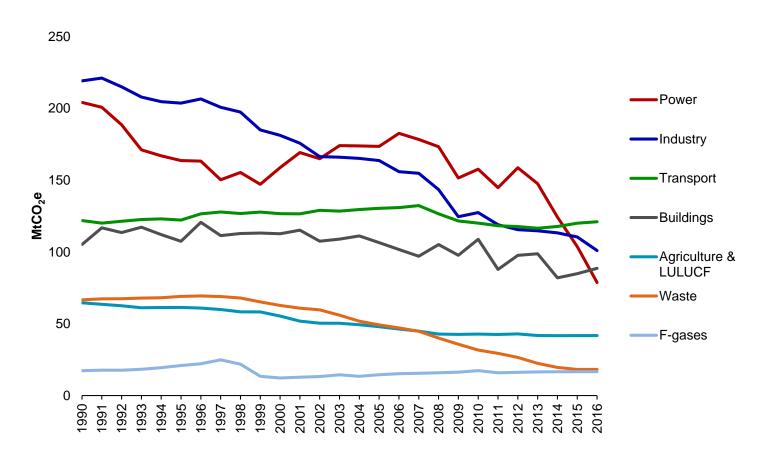
Our scenarios to 2030 contain two categories of measures: (1) cost-effective deployment, and (2) 'path to 2050'





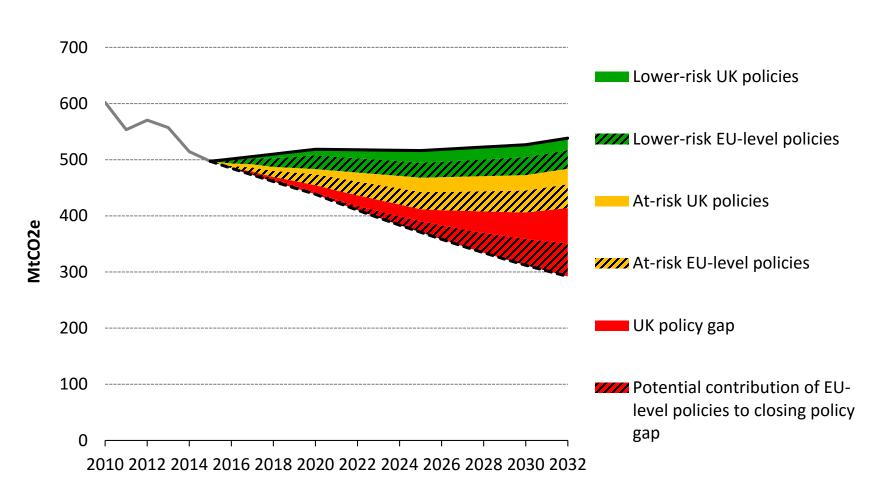
Recent progress reducing emissions

UK GHG emissions by sector (1990-2016)





The policy gap to 4th & 5th carbon budgets must be closed, whatever the outcome of Brexit negotiations





Key areas where more progress is needed are electricity, transport and buildings

Electricity generation

- Further 100 TWh low-carbon generation by 2030
- Strategy for deploying carbon capture and storage

Transport

- Stretching gCO₂/km target for 2030
- 60% of new car sales to be electric vehicles

Buildings

- Strategy for low-carbon heating in the 2020s
- Improve energy efficiency of new & existing homes



Examples of CCC and ASC publications







Reports provide also a vision



heat networks, heat pumps, etc

Insulation, efficiency & behaviour change

By 2030s: 1 in 7 homes, half of public and commercial use, low-carbon heat



Further conventional fuel efficiency improvement

By 2030 around 60% new cars & vans electric (hybrid or full)

Travel behaviour change: mobility choices, driving styles



Options: wind, nuclear, CCS, interconnection, gas, storage

Compared to the property of the property of

By 2030s: <100 g/kWh, smart demand



 Adjusting industrial processes, energy efficiency, heat recovery

Development of CCS

Through 2020s: apprx. 1%/yr fall emissions from measures



efficient fertiliser use, animal diets, breeding, fuel efficiency

Through 2020s: apprx. 1%/yr decrease emissions



All main biodegradable waste diverted from landfill, alternatives to F-gases

By 2030s: apprx. 50% decrease emissions from today 13



Move to a low-carbon economy presents opportunities for business

Low-carbon economy

- UK low-carbon economy is 2-3% of GDP, comparable to energy-intensive manufacturing.
- It has been growing faster than the rest of the economy.

Growing market

Following the Paris Agreement, global demand for low-carbon goods and services is set to expand

Opportunities

The UK well-placed to take advantage of growing global markets for low emission vehicles; low-carbon finance, insurance and consulting; low-carbon electricity; smart grids and energy efficient products.



Thank you!