Anticipating the Paris Climate negotiations

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BIEE Parker Seminar 4
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Structure of Presentation

1. Global emissions – scale of gap
2. Process to Paris
3. UK Government position
4. EU position
5. What's new? Reasons for optimism?
    - Evidence base
    - US / China positions
    - UN Climate Summit

6. CCC – preparing for 5th carbon budget recommendations

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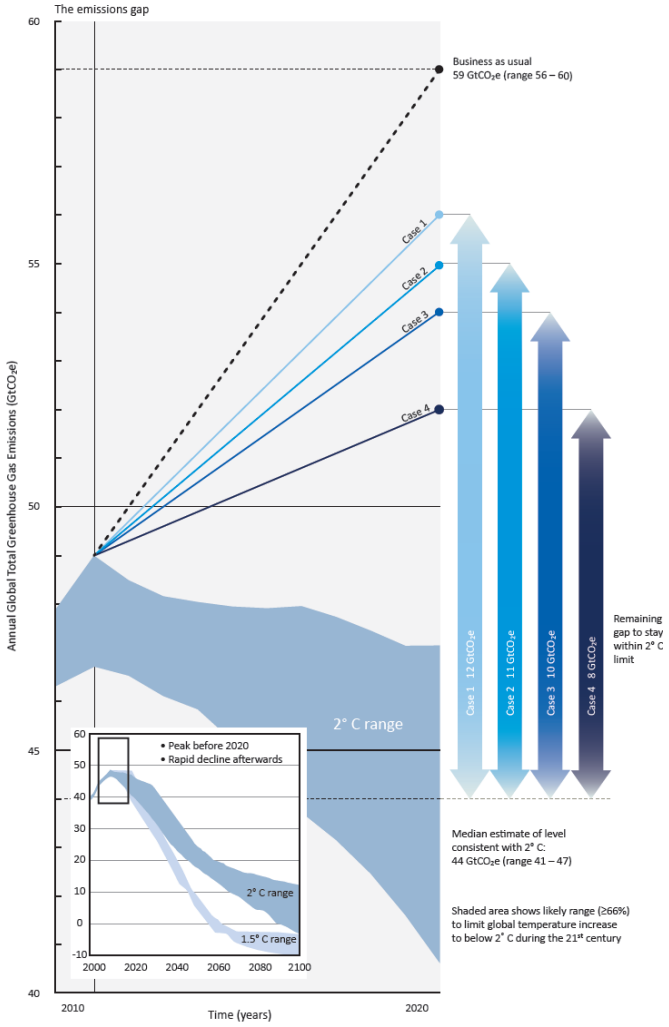
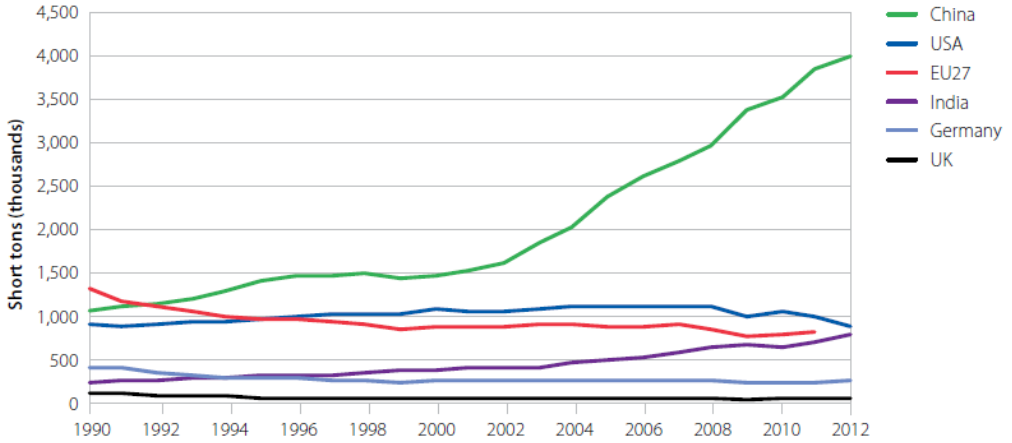
The emissions gap – difference between current 2020 pledges and cost-effective path (Source: UNEP Emissions Gap report)



Meeting the climate objective – emerging themes from the CCC's 4th Carbon Budget Review (November 2013)

- Current plans for coal generation pose a severe risk to the objective
- Important role for CCS
- Transitional role for gas, but needs to peak in 2020s then decline
- Needs acceleration of investment in low-carbon technologies

Figure 2.11: Coal consumption in selected regions (1990-2012)



Source: US Energy Information Administration Statistics.

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Process to Paris

- The UNFCCC has formally adopted the objective of limiting temperature rise to 2°c and has agreed to work towards a global deal to be agreed in Paris in 2015
- By the end of March all major economies should have put forward proposals on national emissions targets for beyond the end of the decade

At the UN Climate Change Conference in Warsaw, governments took further essential decisions to stay on track towards securing a universal climate change agreement in 2015. The objective of the 2015 agreement is twofold

- First, to bind nations together into an effective global effort to reduce emissions rapidly enough to chart humanity's longer-term path out of the danger zone of climate change, while building adaptation capacity.
- Second, to stimulate faster and broader action now.

To these ends, governments agreed to communicate their respective contributions towards the universal agreement well in advance of the meeting in Paris in 2015.

Key issues to be resolved at Paris

- Whether future emissions should be divided up according to a "carbon budget" approach – the amount of emissions that can be released into the atmosphere and keep within the 2°c ambition
- How far major developing counties should take emissions cuts; how "common but differentiated responsibility" applies.

"China is a developing country. We have 18m people living in poverty. China has paid equal attention to growth, mitigation and adaptation. We are similar to developing countries and the least developed countries, we are on the same page as these countries."

Chinese Foreign Minister, Xie Zhinhua

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UK Vision for a Global Deal "Paris 2015: Securing Our Prosperity through a Global Climate Change Agreement"

- UK vision published early September: Acting now can help prevent worst effects of climate change and bring significant benefits to all countries
- Vision for agreement:
  - Delivering fair and ambitious commitments to reduce emissions from all countries
  - Tracking progress, building trust and facilitating increased ambition in future
  - Support to those who need it, particularly the poorest and most vulnerable, to develop climate resilience

Reflects post-Copenhagen move away from top-down approaches towards a bottom-up system where countries make pledges and these are reviewed. As such, a focus on making sure commitments are measurable, transparent and comparable. Recognises advanced countries will need to take tighter cuts by 2030, with other large countries – e.g. China – peaking in 2020s

This vision has substantial amount in common with paper published by Green Alliance, Christian Aid, Greenpeace, RSPB and WWF, "Paris 2015: getting a global agreement" - Ambitious actions; strong legal framework / clear rules; equity; one-way ratchet; scaled up financing

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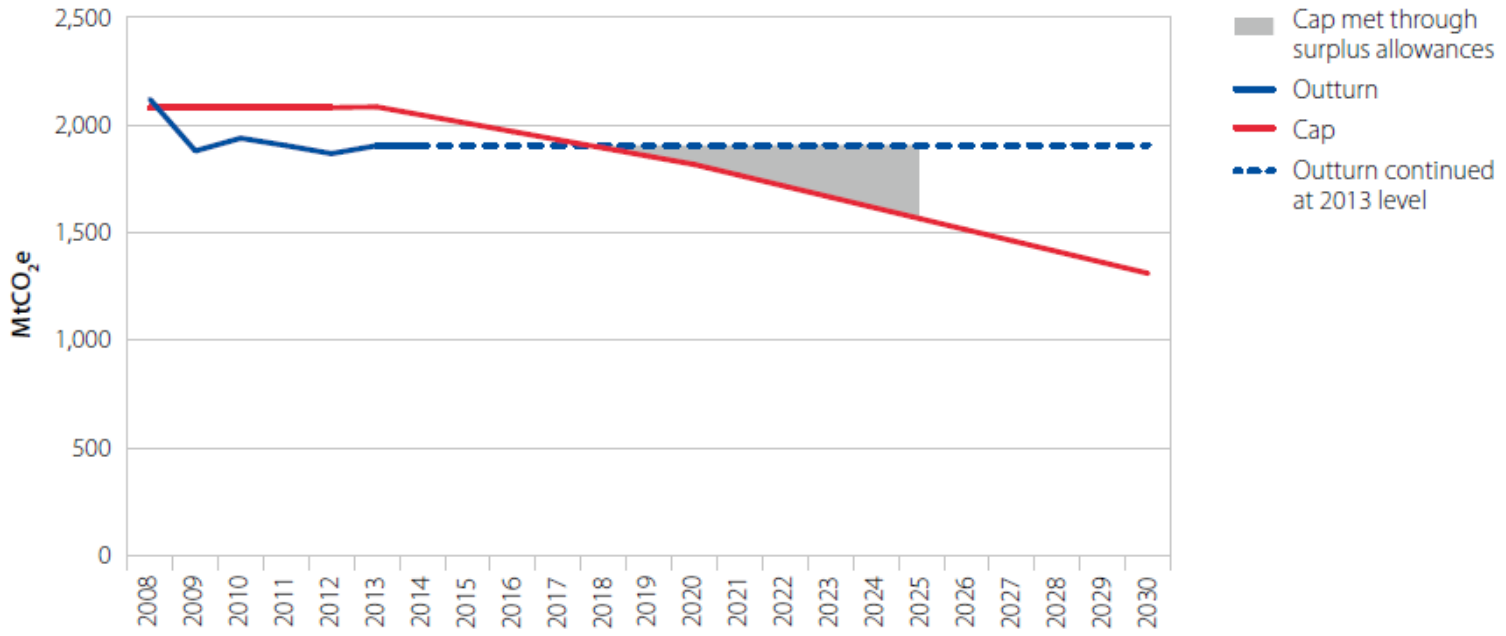
EU – Commission proposal

- 2030 GHG target – 40% below 1990 levels, met through domestic measures
- EU wide renewable energy target of at least 27% in 2030, but no binding national level commitments
- EU ETS reform – legislative proposal for “market stability reserve”, with aim of limiting any build-up of surplus allowances post 2021 and allowing adjustment in supply in response to economic shocks

Now aiming for agreement at Council meeting late October. Proposals include fund to finance innovation and emissions cuts from utilities and industry, and fund to help low-income member states modernise energy systems. Funding from percentage of ETS allowances.

Can the ETS deliver? At the current level of emissions in the EU ETS, the cumulative surplus within the cap could persist until 2024



Source: European Commission (2014) *Verified emissions data*; European Commission (22 October 2010) *Commission Decision 2010/364/EU.*
Notes: Excludes international aviation.

The UK should push for a combination of ETS reform and emissions targets for 2020 and 2030 that will put the EU on the cost-effective path to meeting its target for 2050 and deliver a strong ETS price. Likely to be necessary for the surplus currently building up to be removed permanently.

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Evidence base – There is increased emphasis on the economic case for action

- The New Climate Economy report
  - The flagship project of the Global Commission on the Economy and Climate
  - Set up by 7 countries, including UK.
  - Chaired by Felipe Calderon, former President of Mexico
- Deep decarbonisation project
  - Convened by Sustainable Development Solutions Network (SDSN) and Institute for sustainable development and International Relations (IDDRI)
  - Led by Jeffrey Sachs
  - Interim report, July, pathways for 15 major economies to decarbonise by 2050
- In the UK, recent Cambridge Econometrics report for WWF

Recent rhetoric from No.10 in line with this:

"We've got further to go in terms of explaining how tackling climate change isn't simply a green policy, it's a growth policy".

The New Climate Economy report

- Countries at all levels of income now have opportunity to build lasting economic growth at the same time as reducing risks of climate change; next 15 years critical
- $89 trillion new infrastructure investment needed over next 15 years, before we take abatement for climate change into account
- The extra infrastructure needed from low carbon transition around $4.1 trillion net, or 5% higher than “business as usual”.
  - plus should reduce need for adaptation investment
  - and before other benefits, such as improved air quality
- Well-designed policies around 3 areas of raising resource efficiency; investment in infrastructure; stimulating innovation, can make growth and climate objectives mutually reinforcing

US / China positions

US

- Now on track to meet Copenhagen Accord commitment (reduce emissions 17% in 2020 on 2005)
- New federal rules to limit greenhouse gases
- President Obama has promised U.S. lead on global effort to forge international agreement

Global warming issue will "define the contours of this century more dramatically than any other"

Barack Obama at UN Climate Summit

China

- Chinese emissions now outstrip those of US and EU combined, and on a per capita basis exceed those in Europe
- Committed to reduce carbon intensity by 40-45% from 2005 to 2020, with policies part of 5-year plan.

U.S, China and EU around 57% of global CO2 emissions

The UN Climate Summit – building momentum?

- 120 heads of state meeting in New York, 23 September 2014, though neither Chinese president or Indian prime minister attended
- Series of announcements by heads and by finance [company] leaders, pledging actions and finance
- Difficult to be clear how much this amounted to and how much was new
- Bilaterals behind the scenes possibly more important than the set piece announcements

"We will announce post-2020 actions on climate change as soon as we can, which will bring about …. peaking of total CO2 emissions as early as possible".

China's vice premier, Zhang Gaoli

"We have delivered"

Ban Ki-Moon

"I have the impression that there is a huge mismatch between the magnitude of the challenge and the response which we heard here today"

Graca Machel

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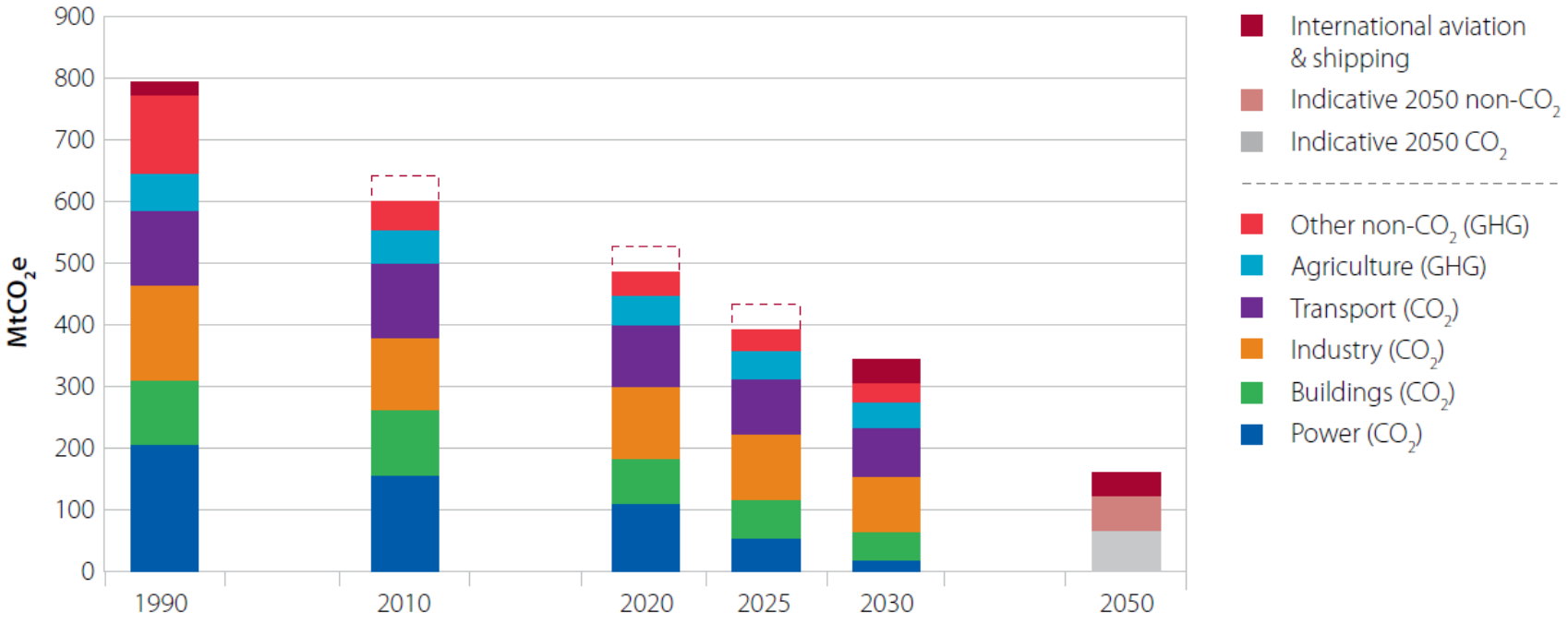
The UK fifth carbon budget

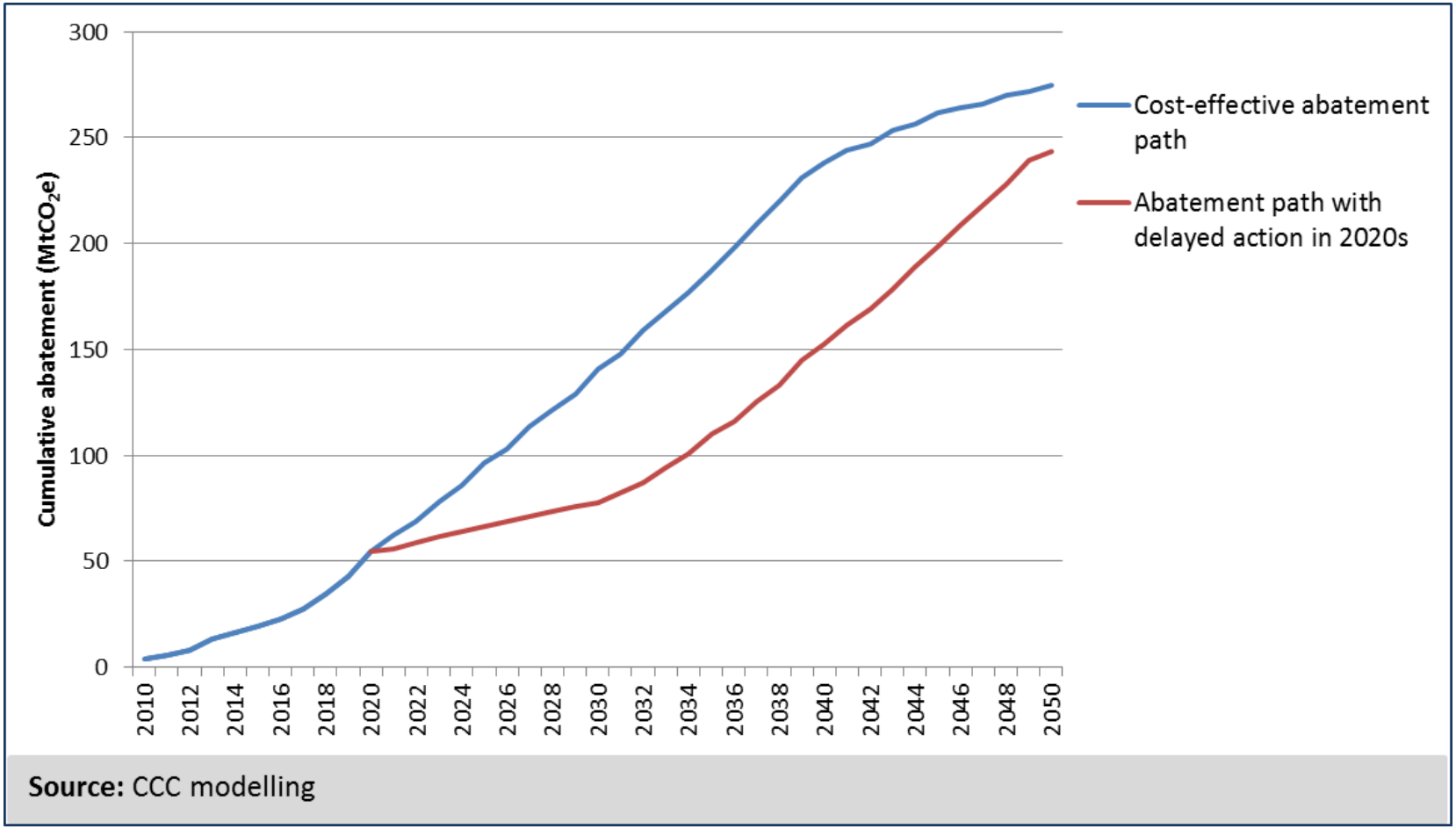
- The Committee on Climate Change has to make a recommendation to the Government on the level of the fifth carbon budget by the end of 2015
- The Government has also taken a power in the Energy Act to set a 2030 decarbonisation target for the power sector. It has said it will come back to this alongside a decision on the fifth budget (2016)

In 2010 we developed a feasible and cost-effective recommendation for the 4th carbon budget on track to the 2050 target



Source: NAEI (2010); CCC modelling.
Notes: Emissions from international aviation and shipping are not currently included in carbon budget accounting, but Government have confirmed that they are included in the 80% emissions reduction target for 2050.

Significant cost savings from early action compared to delay scenario – low regrets with significant upside



Source: CCC modelling

Context for providing advice on levels of UK carbon budgets

- The initial **4th carbon budget** advice was given ahead of post-2020 EU proposals, so there was no meaningful EU framework against which to consider or set allowed emissions
- We therefore developed a central abatement scenario, considering as the cost-effective path:
  - Measures that cost less than the projected carbon price
  - Measures required to meet the 2050 target (developing options and cost reduction)
- This was the basis for the recommended 4th carbon budget at 1950 $MtCO_2e$ (2023-27)

- For the **5th carbon budget** advice, we have a legislated 4th budget which is 50% below 1990 levels, and a 2050 target of at least an 80% reduction
- We expect to have an agreed EU 2030 target (probably 40%) announced this month (October), from which the UK will get a "burden share"
- There is potential for the agreed reductions to change after the Paris meeting
- Revised rules for burden sharing of the EU ETS cap are unlikely to be entirely clear before we recommend the budget

Approach to providing advice for the UK fifth carbon budget

- Probably, we will continue the approach taken in the 4th carbon budget and 4th carbon budget review:
  - Extend our assessment of the cost-effective path to 2032
  - Develop scenarios to demonstrate the recommended budget is achievable and cost-effective, and drawing out the “critical path” options
  - Examine implications of uncertain outcomes (e.g. technology costs, GDP growth) for meeting the budget
- Whilst maintaining flexibility around the precise nature of the recommendation depending on pre-Paris announcements, and prospects for agreement

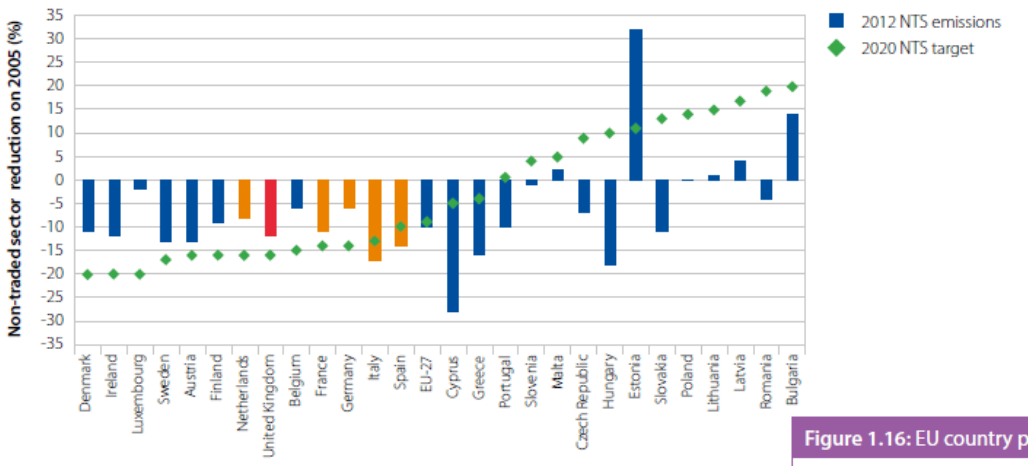
Competitiveness implications

"If there is no binding commitment from countries such as India, Russia, Brazil, the US, China, Japan and South Korea, whose governments are responsible for some 70% of global emissions, I think it is not really smart to have a -40% target."

Gunther Oettinger, outgoing EU energy commissioner

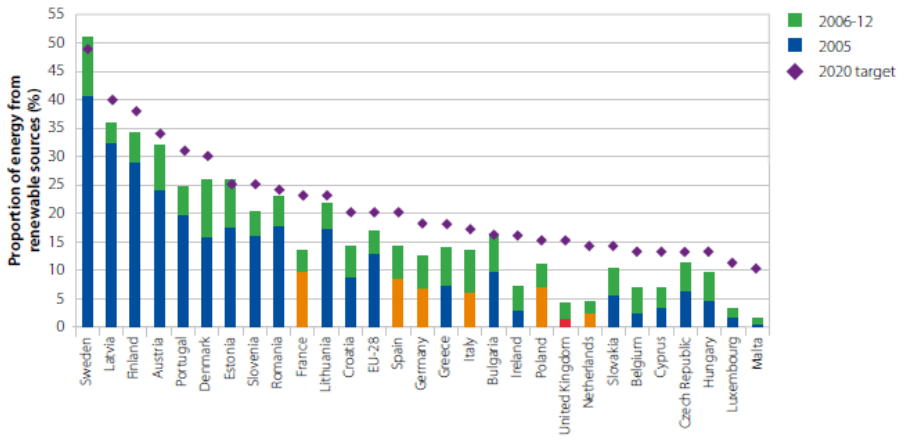
UK has made progress towards EU 2020 targets but not obviously doing more than others

Figure 1.15: EU country progress in 2012 towards 2020 emission targets (non-traded sector)



Source: European Environment Agency (2013), *Trends and projections in Europe 2013.*
Notes: Orange bars represent largest six countries labelled in Figure 1.13.

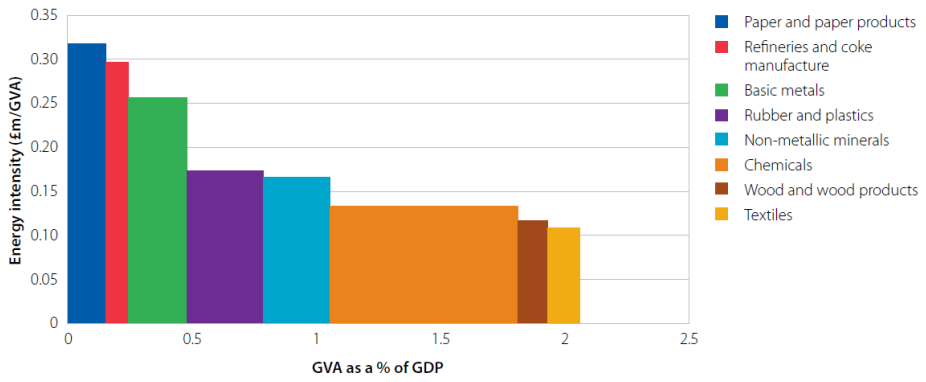
Figure 1.16: EU country progress in 2011 towards 2020 renewable energy targets



Source: European Environment Agency (2013), *Trends and projections in Europe 2013*, EC (2013), *Renewable energy progress report.*
Notes: Orange bars represent largest six countries labelled in Figure 1.13.

Competitiveness impacts in UK – assessment in CCC's 4th Carbon Budget Review

Figure 4.2: Energy intensive industries energy costs and GVA (2011)

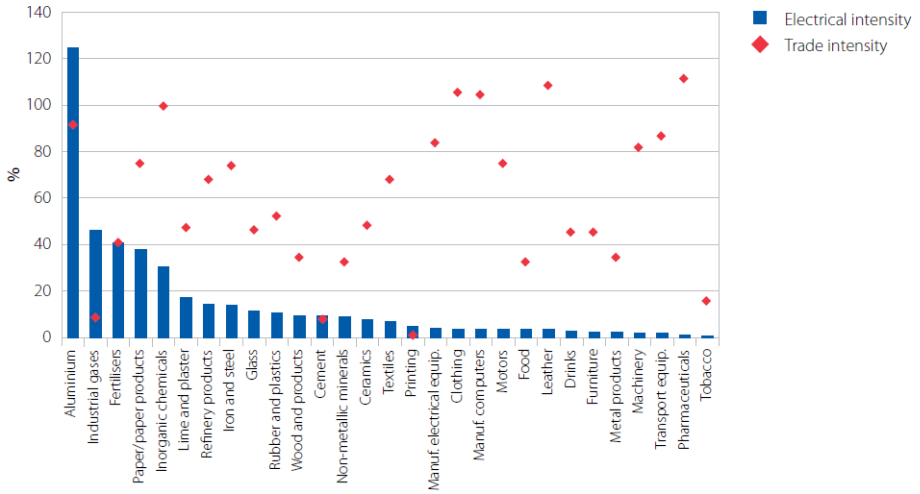


Source: CCC calculations based on ONS and DECC data.

- Direct emissions – 4CB measures are low cost; sectors at risk are allocated free allowances in EUETS
- May be a need for continued support to 2030 depending on progress towards global deal

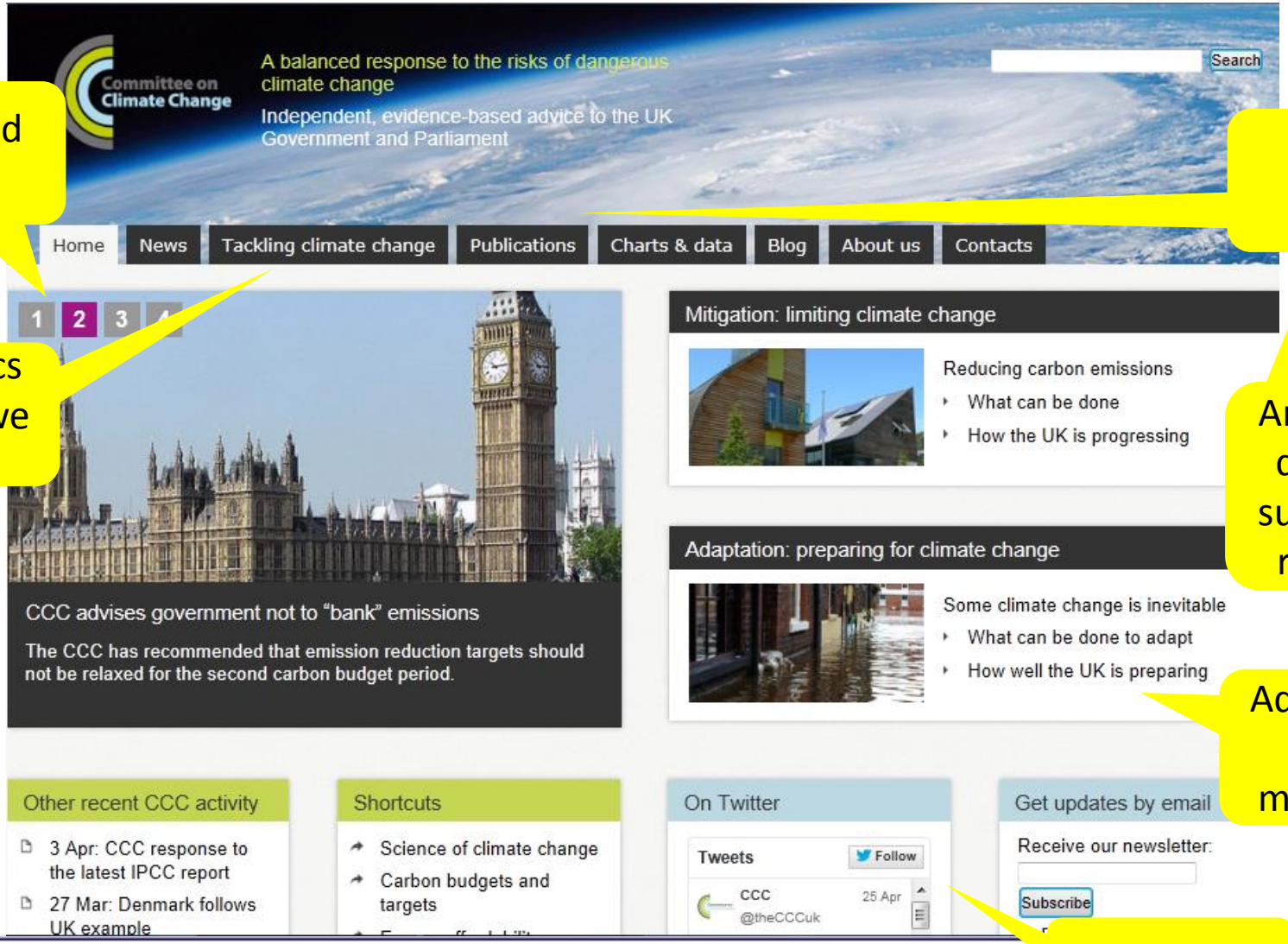
- Indirect emissions – risk to electricity-intensive sectors from electricity price increases
- Govt package of measures to support at-risk sectors broadly in line with amount appropriate to compensate to 2020
- Required support could fall through 2020s, as others adopt low-carbon measures. Important to keep this under review.

Figure 4.5: Electricity and Trade Intensity of UK manufacturing sectors



Source: CCC calculations, ONS and DECC data.
Notes: Electricity intensity is £electricity bill/GVA. Trade-intensity is (imports+exports)/(output+imports). Trade intensity can be over 100% due to different data sources used for trade and GDP data.

The end!
(But keep in touch via our website: www.theccc.org.uk)



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