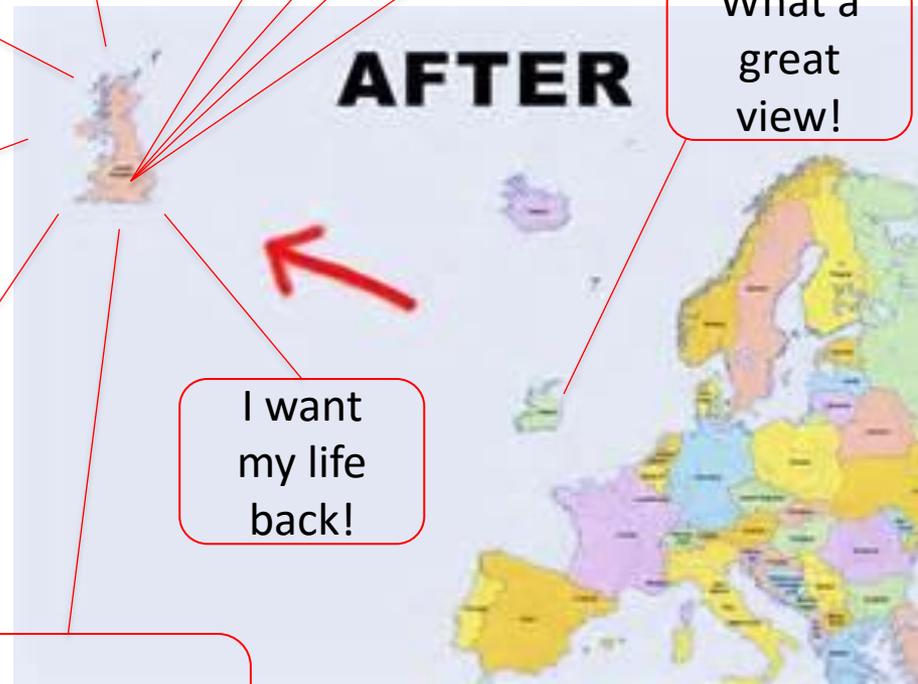


BREXIT anyone?



I'm leaving you!

Does the Climate Change Act still apply out here?!

I resign!
I resign!
I resign!
I resign!

Well, what we *actually* meant was...

What a great view!

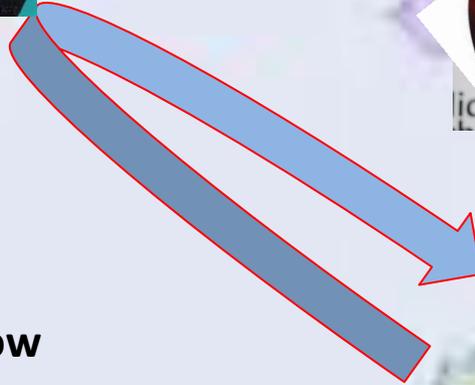
Go back 'ome!

I want my life back!

I'm Labour!
No, I'm Labour!

1. do you think leaving the EU is now inevitable e.g. new Tory PM will trigger A50 in the Autumn?
EU exit not **absolutely** inevitable, if the eventual package is seen by Parliament – and then another referendum (?) – as too damaging to the UK and EU
2. if so will this be done without a vote in Parliament?
Questions on this are now being asked
3. Is a GE likely in the Autumn?
General Election? T May demanded that G Brown seek new electoral mandate when he took over from T Blair...
4. either way - do u agree it is likely that any Gov will seek to remain in the free trade area and therefore have to accept some EU law stays in place for UK (else the gov has to rewrite 40yrs of law asap w too few staff/experts)
Who knows? Access to single market (Thatcher's major economic achievement!) may depend on free movement of labour.
5. is it likely that EU law (inc, the Directives in place) will in principle have to be adhered to for at least 2 years in full - or can gov pick and choose which ones it will jettison/ignore from now onwards?
EU law likely to be still operational for some time, since most is incorporated into UK law
6. if gov. are free to do this - should we assume as a working hypothesis that environmental and labour laws will be ditched. Obviously our members are particularly concerned about environmental and energy efficiency/low carbon aspects.
Environmental/energy regulation eventually up for grabs, UNLESS UK Government and Parliament decide that they are **essential for level playing field EU market access**
7. lastly - I am interested to see Labour, Greens, Plaid, LibDems starting to look at collaborating at the next GE. Can you tell me anything about this?
Some areas of common objectives (e.g. 6 above) may offer opportunity for cross-party cooperation

AFTER



NEW:
**Everything you need to know
about Theresa May's Brexit
nightmare in five minutes**

<http://www.politics.co.uk/blogs/2016/07/14/everything-you-need-to-know-about-theresa-may-s-brexit>

One step removed?

IPPR's 6 possible futures for the UK's economic relationship with the EU

MIGRATION v. SINGLE MARKET

“It seems likely that the government will soon seek to strike a deal with the EU that no longer allows free movement of people. In return, the EU is likely to require that the UK has less access to the single market.”

= negotiation with trade-offs between migration and market access.

SINGLE MARKET ACCESS v. EU Laws

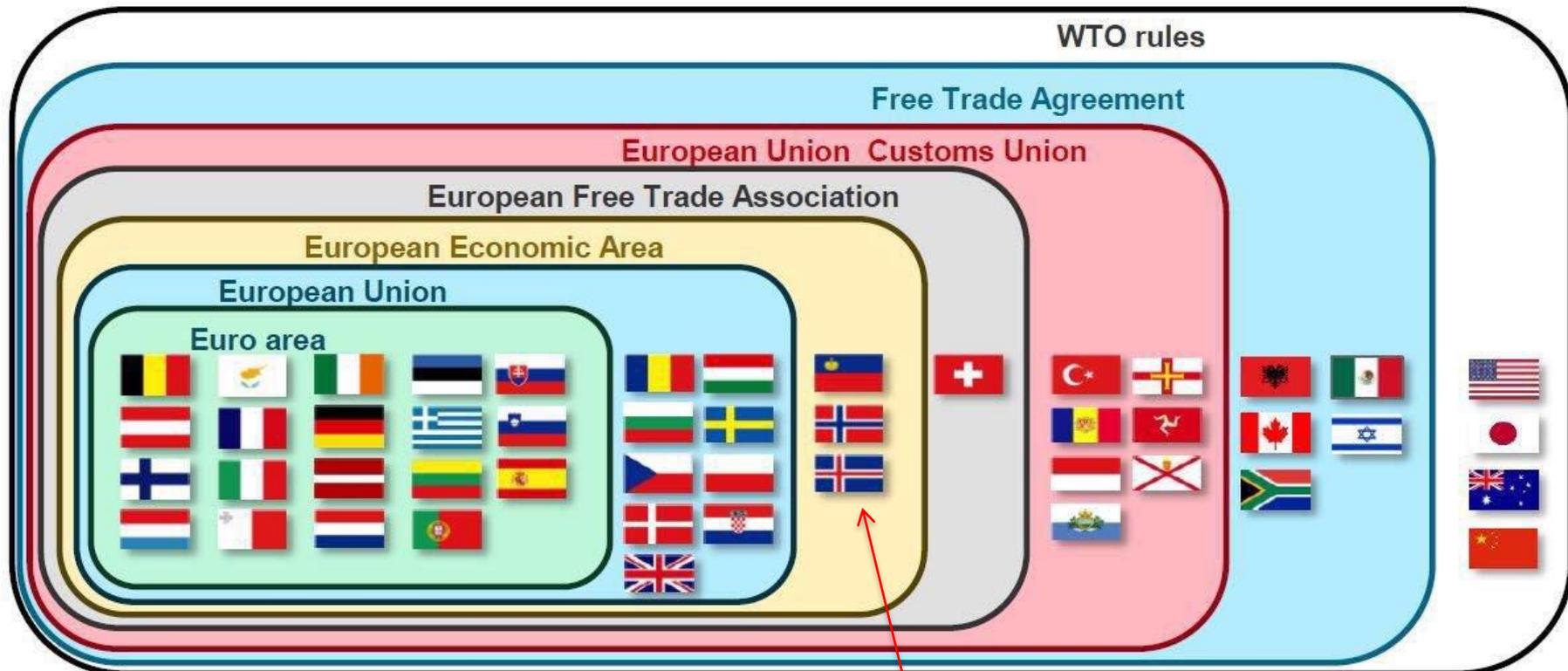
Accessing the single market whilst ensuring that the UK ends up with a greater degree of self-determination?

TENSION

“Retaining as much access to the single market as possible < > requires us to sign up to EU laws which we would have had no role in designing.”

Precedent & Options?

1. 'EU minus'
2. 'The Norway option'
3. 'Norway minus'
4. 'The Switzerland option'
5. 'The Turkey option'
6. 'The Brazil option'



Apologies for lack of a credit for this diagram, lost tweet it was from.

Apparently Phil Hammond (Chancellor) mentioned EEA status is needed for financial services

BREXIT OPTIONS: UK IN THE SINGLE MARKET

Model of relationship	Free trade in goods	Free trade in services	'Passporting' rights for financial & insurance services	Customs union	Contribution to EU budget	Participation in CAP* & CFP†	Participation in other EU-funded programmes (e.g. research)	Adherence to EU legislation
Status quo: EU membership	Retained	Retained	Retained	Retained	Retained	Retained	Retained	Retained
Option 1: 'EU minus'	Retained	Retained	Retained	Retained	Retained	Partially retained	Retained	Retained
Option 2: 'Norway'	Retained	Retained	Retained	Partially retained	Retained	Partially retained	Retained	Retained
Option 3: 'Norway minus'	Retained	Retained	Partially retained	Partially retained	Retained	Partially retained	Retained	Partially retained
Option 4: 'Switzerland'	Partially retained	Partially retained	Partially retained	Partially retained	Retained	Partially retained	Retained	Partially retained
Option 5: 'Turkey'	Partially retained	Partially retained	Partially retained	Partially retained	Partially retained	Partially retained	Retained	Partially retained
Option 6: 'Brazil'	Partially retained	Partially retained	Partially retained	Partially retained	Partially retained	Partially retained	Partially retained	Partially retained

Note: *Common Agricultural Policy
†Common Fisheries Policy

Key	
Retained	
Partially retained	

AECB focus: 'partial retention scenarios'

IPPR

Read our new briefing *One step removed? Six possible futures for the UK's economic relationship with the EU* IPPR.org/publications/a-progressive-brexit/

Leaving the EU: implications for UK energy policy

House of Commons Select Committee inquiry launched

- To what extent have the Government's energy policies been driven by the EU? Are any policy areas currently at risk?
- What should be the Government's priorities on energy when negotiating the UK's exit from the EU? What would a successful negotiation outcome look like?
- **What aspects of existing EU energy policies and directives are beneficial to the UK? What should be the Government's priorities in deciding which EU-led energy policies and legislation to retain?**

AECB will be submitting a response

- with the help of Jeff Colley & David Olivier
- Members please email AECB, bearing in mind the scope and questions:
- see <http://www.parliament.uk/business/committees/committees-a-z/commons-select/energy-and-climate-change-committee/news-parliament-2015/eu-energy-launch-16-17/>

Leaving the EU: implications for UK energy policy inquiry launched



07 July 2016

The Energy and Climate Change Committee launches an inquiry exploring the implications for UK energy policy of leaving the European Union.

- Inquiry: Leaving the EU: implications for UK energy policy
- Energy and Climate Change Committee

EU Law

EU Common Frameworks & 2020 Targets

The **European Union** has established **common frameworks** for **reducing energy consumption** and **increasing renewable energy** use.

- The **targets** are in line with the overall **20-20-20 goal** of:
 - reducing greenhouse gas emissions by 20% compared to 1990
 - improving energy efficiency by 20%
 - increasing the share of EU energy produced from renewable resources by 20%
- The **directives** set **binding targets** that have to be:
 - **transposed into national law**
 - **implemented via national regulations at defined dates**

Since 2005, the **Three Concerted Actions** (**EPBD, RES and EED**) have been the meeting place for **national representatives** working on the **implementation of the directives into national measures and policies**.



What are the EPBD, RES & EED?

The 2012 Energy Efficiency Directive (EED)

- All EU countries are required to **use energy more efficiently at all stages of the energy chain** from its production to its final consumption
- EU countries were required to transpose the Directive's provisions into their **national laws by 5 June 2014**
- To reach the EU's 20% energy efficiency target by 2020, individual EU **countries have set their own indicative national energy efficiency targets**. Depending on country preferences, these targets can be based on primary or final energy consumption, primary or final energy savings, or energy intensity.
- EU Member States declare their absolute level of energy consumption targets for 2020 in **Mtoe**

Note:

- Germany has over 80 million inhabitants. France, Italy, UK have just over 60 million.
- Germany still has lots of manufacturing industry, including (ultra-high quality) steel making.
- UK has outsourced 30-35% of its CO2 emissions; i.e., if the UK still made as many manufactured goods as it did in say 1950-60, its energy consumption and emissions would be about 50% higher.

The 2012 Energy Efficiency Directive (EED) - Buildings

The [Energy Efficiency Directive](#) places energy savings requirements on EU countries' buildings. This includes making central government buildings more energy efficient and requiring EU countries to establish national plans for renovating overall building stock.

National building renovation strategies

EU countries have drawn up strategies to show how they plan to foster investment into the renovation of residential and commercial buildings. These strategies are part of their [National Energy Efficiency Action Plans](#). They:

- provide an overview of the country's national building stock
- identify key policies that the country intends to use to stimulate renovations
- provide an estimate of the expected energy savings that will result from renovations

The Energy Performance of Buildings Directive (Directive 2002/91/EC)

- First published **2002**
- required all Member States to
 - **improve building regulations**
 - **introduce energy certification schemes for buildings**
 - **introduce schemes for inspection of boilers and air-conditioners**
- In **2010** the EPBD was 'recast' (Directive 2010/31/EU) key issues tackled are:
 - the move towards **new and retrofitted nearly-zero energy buildings by 2021 (2019 in the case of public buildings)**
 - the application of a **cost-optimal methodology for setting minimum requirements** for both the building envelope and the technical systems

It is the 'recast EPBD 2010 that the UK has been expected to implement through its Green Deal and Zero Carbon Homes policies – currently cancelled. The current position is that the **existing Building Regulations are sufficient to deliver to this for new buildings (!)** – not sure of the position relating to retrofit policy.

Key themes are :

- Certification schemes
- Inspection of heating and air-conditioning
- Training of experts and inspectors
- Energy performance requirements using the cost-optimum methodology
- ***Towards 2020 – Nearly zero-energy buildings**
- Compliance and control of energy performance requirements and certification system
- Effectiveness of support initiatives

Model of relationship	Free trade in goods	Free trade in services	'Passporting' rights for financial & insurance services	Customs union	Contribution to EU budget	Participation in CAP* & CFP†	Participation in other EU-funded programmes (e.g. research)	Adherence to EU legislation
Option 2: 'Norway'	Orange	Light Blue	Light Grey	White	Dark Purple	White	Dark Teal	Light Grey

Example of Norway

Norway implemented the original EPBD, but has not implemented the 2010 recast.

This is because the recast Directive has not been formally included in the Agreement on the European Economic Area (EEA), and is thus not implemented in Norway.

The content of this directive is, however, actively pursued in the planning of future regulations. See: <http://www.buildup.eu/sites/default/files/content/ca3-2016-national-norway-web.pdf>

Conversation with Jeff Colley, PH+

Renewable Energy Sources Directive, 2009 (Directive 2009/28/EC).

The directive establishes a **common framework for the use of renewable energy** within the European Union.

Each Member State has a target for the share of energy from renewable sources in its gross final energy consumption for the year 2020

- Support schemes for electricity
- Cooperation mechanisms
- **Renewable heat**
- **Electricity Networks**
- Guarantees of origin and disclosure
- **Biomass mobilisation and sustainability**
- Renewables in transport

Problems arising from Directive and UK interpretation of, e.g. Nuclear, Biomass/RHI – see AECB Library!

UK Law

National Legislation: UK Climate Change Act 2008

The Climate Change Act includes the following:

2050 Target. The act commits the UK to reducing emissions by **at least 80% in 2050 from 1990 levels**. This target was based on advice from the CCC report: Building a Low-carbon Economy. The 80% target includes GHG emissions from the devolved administrations, which currently accounts for around 20% of the UK's total emissions.

Carbon Budgets. The Act requires the Government to set **legally binding 'carbon budgets'**. A carbon budget is a cap on the amount of greenhouse gases emitted in the UK over a five-year period. The Committee provides advice on the appropriate level of each carbon budget which are designed to reflect cost effective path to achieving the long terms objectives. The first four carbon budgets have been put into legislation and run up to 2027.

The Committee on Climate Change was set up to advise the Government on emissions targets, and **report to Parliament on progress made in reducing greenhouse gas emissions**. It includes the Adaptation Sub-Committee (ASC) which scrutinises and advises on the Government's programme for adapting to climate change.

A National Adaptation Plan requires the Government **to assess the UK's risks from climate change, prepare a strategy to address them, and encourage critical organisations to do the same.**



Leo Hickman
@LeoHickman



Following

Here's what Theresa May, the UK's next prime minister, said about climate change in 2008

Theresa said, "I am thrilled to see that after years of Conservative pressure, we have finally passed a necessary and ambitious piece of legislation on Climate Change. Britain is the first country in the world to formally bind itself to cut greenhouse emissions and I strongly believe this will improve our national and economic security."

"To stay reliant on fossil fuels would mean tying ourselves to increasingly unstable supplies which could endanger our energy security and the Climate Change and Energy Bills mark an important step for both the health of our economy and the health of our nation. It is now vital that we stick to these targets. I will continue to put pressure on the Government over the third runway at Heathrow as an extra 222,000 flights a year would undermine our national targets and seriously damage the health of the local community."

Government departments provide input into climate change policies:

Department for Energy and Climate Change (DECC) leads [did lead] on the UK's policy to **reduce emissions**. It is responsible for delivering secure energy and driving ambitious action on climate change at home and abroad.
Budget mainly allocated to nuclear waste and decommissioning

Department for Environment and Rural Affairs (Defra) leads on the UK's domestic **adaptation** policy. It is responsible for developing a National Adaptation Programme to address the risks set out in the first Climate Change Risk Assessment. Government is working with business, Local Government, civil society and public sector organisations to develop this programme. See [Defra](#) website for more information.

Devolved Administrations

In addition to being covered by the UK Climate Change Act, the DAs are taking forward their own climate change policies;

The Climate Change (Scotland) Act was passed in 2009, committing Scotland to a 42% reduction in emissions by 2020 and annual reductions between 2010 and 2050.

Following advice from the Committee, Northern Ireland's Environment Minister is developing **plans for a Northern Ireland Climate Change Act**

The Committee recently provided advice to the **Welsh Government on potential options for climate change legislation**.

See the CCC's latest progress reports -- [publication section](#) for CCC views on current government policies designed to reduce climate change.

Progress as reported by CCC, 2016 <https://www.theccc.org.uk/wp-content/uploads/2016/06/2016-CCC-Progress-Report.pdf>

In accordance with the Climate Change Act, CCC track progress on UK domestic emissions of six main greenhouse gases (GHGs): carbon dioxide, methane, nitrous oxide and three fluorinated gases (F-gases)

report on emissions:

in the devolved administrations

international aviation and shipping (currently not formally included in carbon budgets but are an important part of the 2050 target)

Provisional:

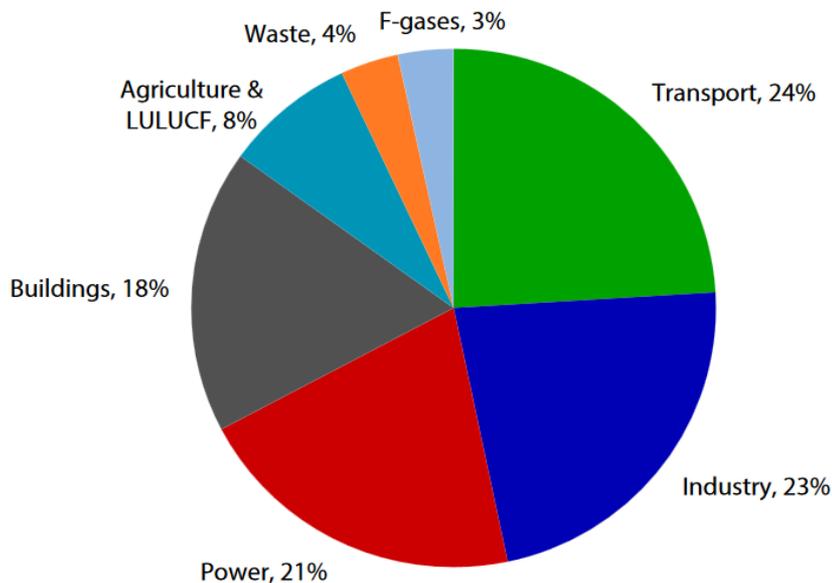
UK domestic GHG emissions were 497 MtCO₂e in 2015, a fall of 3% compared to 2014 (4% after adjusting for differences in temperature between years) or 38% below 1990 levels.

In order of largest emissions, by sector:

1. Transport 24%
2. Industry (23%)
3. power (21%)
4. buildings (18%)
5. agriculture and land use, land-use change and forestry (LULUCF) est. around 8%
6. waste (4%)
7. F-gases (3%)

..further substantial reductions in emissions will still be needed in order to meet the level of the fourth carbon budget, which requires a 51% reduction by 2025 relative to 1990, and the fifth carbon budget, to be legislated by the end of June 2016, for which the committee have recommended a 57% reduction by 2030. [5th budget now accepted]

Figure 1.3. UK domestic GHG emissions by sector in 2015



Source: DECC (2016) *Provisional GHG statistics for 2015*; DECC (2016) *Final GHG statistics for 1990-2014*; CCC analysis.

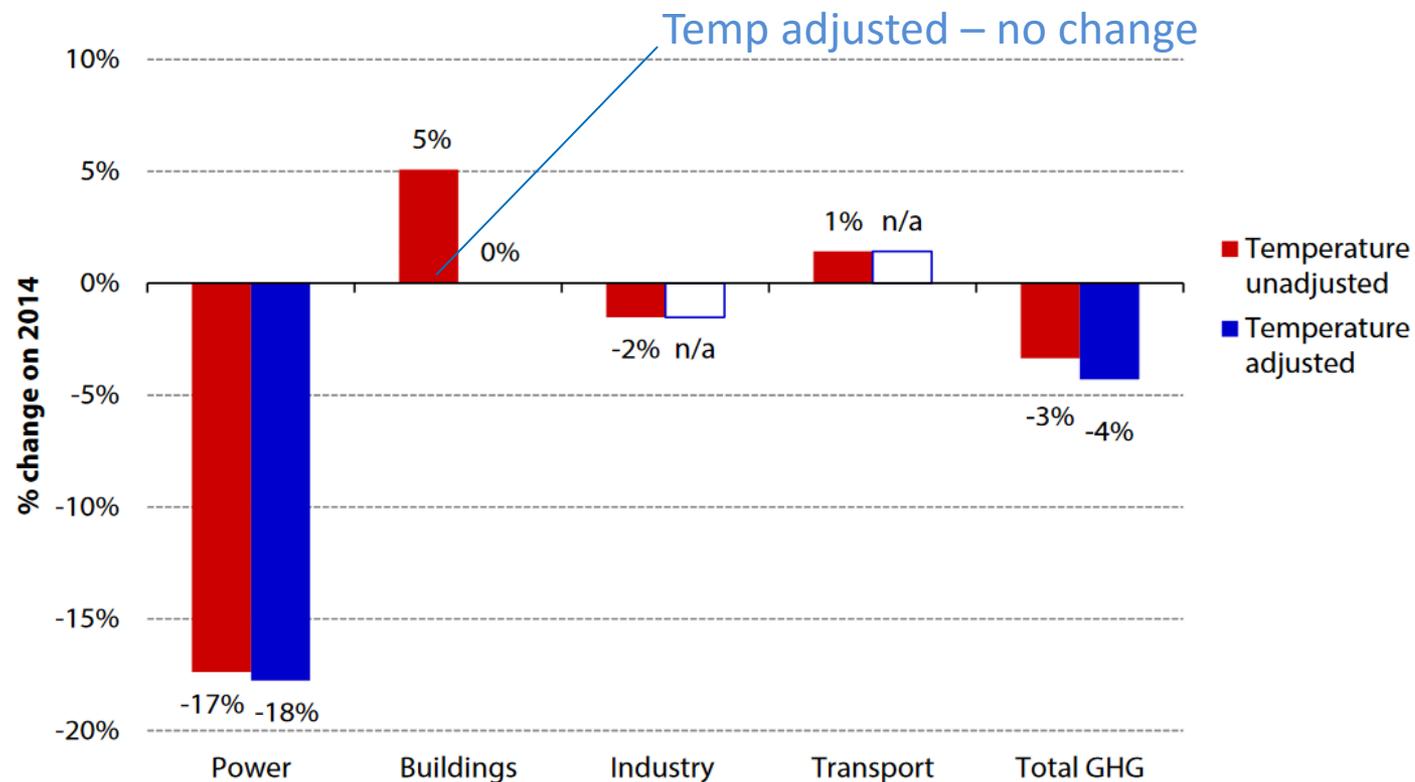
Notes: Estimates of non-CO₂ gases are based on an assumption that emissions in 2015 will be the same as in 2014 and are spread across the sectors as in 2014 final GHG statistics. Totals may not sum to 100 due to rounding.

Transport emissions increased by 1% - fast growing road travel demand outweighed improvements in the fuel efficiency of new vehicles.

Buildings emissions increased by 5%. This is likely to reflect the colder average temperatures in 2015 compared to 2014, leading to higher heating demands: **temperature-adjusted emissions show no change**, It follows an average annual decrease in building emissions of 3.3% over the period 2009-2014 driven mainly by boiler replacements, with more efficient condensing boilers and cavity wall and loft insulations in residential buildings. [\[next slide as graph\]](#)

Altogether, **progress has been very unbalanced across sectors.** The **drop in emissions is almost entirely due to falling power sector emissions.** This is part of the long-term reduction that is necessary in order to meet the 2050 target, but **progress across all sectors will be needed in future to be on track** to 2050 and to meet the fourth, and recommended fifth, carbon budgets.

Figure 1.4. Change in UK domestic GHG emissions between 2014 and 2015



Source: DECC (2016) *Provisional GHG statistics for 2015*; DECC (2016) *Final GHG statistics for 1990-2014*; CCC analysis.

Notes: Estimates of non-CO₂ gases are based on an assumption that emissions in 2015 will be the same as in 2014 and thus we do not report on 2014-15 change in the case of agriculture, waste and F-gases. Emissions for industry and transport are not temperature adjusted.

Meeting the fourth and recommended fifth carbon budgets and the 2050 target **require emissions to fall in buildings, transport and agriculture, rather than just in the power sector.**

Our approach to monitoring progress

Why CLR teaches economic appraisal

Carbon budgets have been set to reflect our estimate of the most 'cost-effective' path to the 2050 target. Our cost-effective path is designed to represent the lowest cost way of meeting the 2050 target, taking into account the full range of criteria set out in the Climate Change Act (including impacts on energy security, competitiveness, fuel poverty and the fiscal balance). It reflects a realistic take-up of relatively low-cost technologies (e.g. incremental improvements in energy efficiency of buildings and vehicles) as well as those required to prepare effectively for meeting the 2050 target (e.g. increasing uptake of heat pumps and electric vehicles, deployment of carbon capture and storage).

Currently 'cancelled'

On effective policy, David Olivier:

Danish heat networks has cut their heat sector's CO2 emissions by ~65-70% since 1990. By contrast the UK's only effective policy on heat has been mandatory condensing boilers since 2015. Its moves to higher insulation have yet to reduce metered heat (gas) consumption by more than a small amount.

Appalling gap between theory and practice.

We must avoid delaying action through false promises by not having addressed soon enough the genuine sustainability problem that is facing humanity as a whole.

Circular Economy Effects Only Work Under One Percent Growth!!!

Research by François Grosse

“Quasi-Circular Growth: A Pragmatic Approach to Sustainability for Non-Renewable Material Resources”, published in S.A.P.I.E.N.S., vol. 4, no. 2, 2011)

<https://blog.p2pfoundation.net/circular-economy-effects-work-one-percent-growth/2016/07/13>