

# The German Energy Transition – a non-German view

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New Thinking For Energy



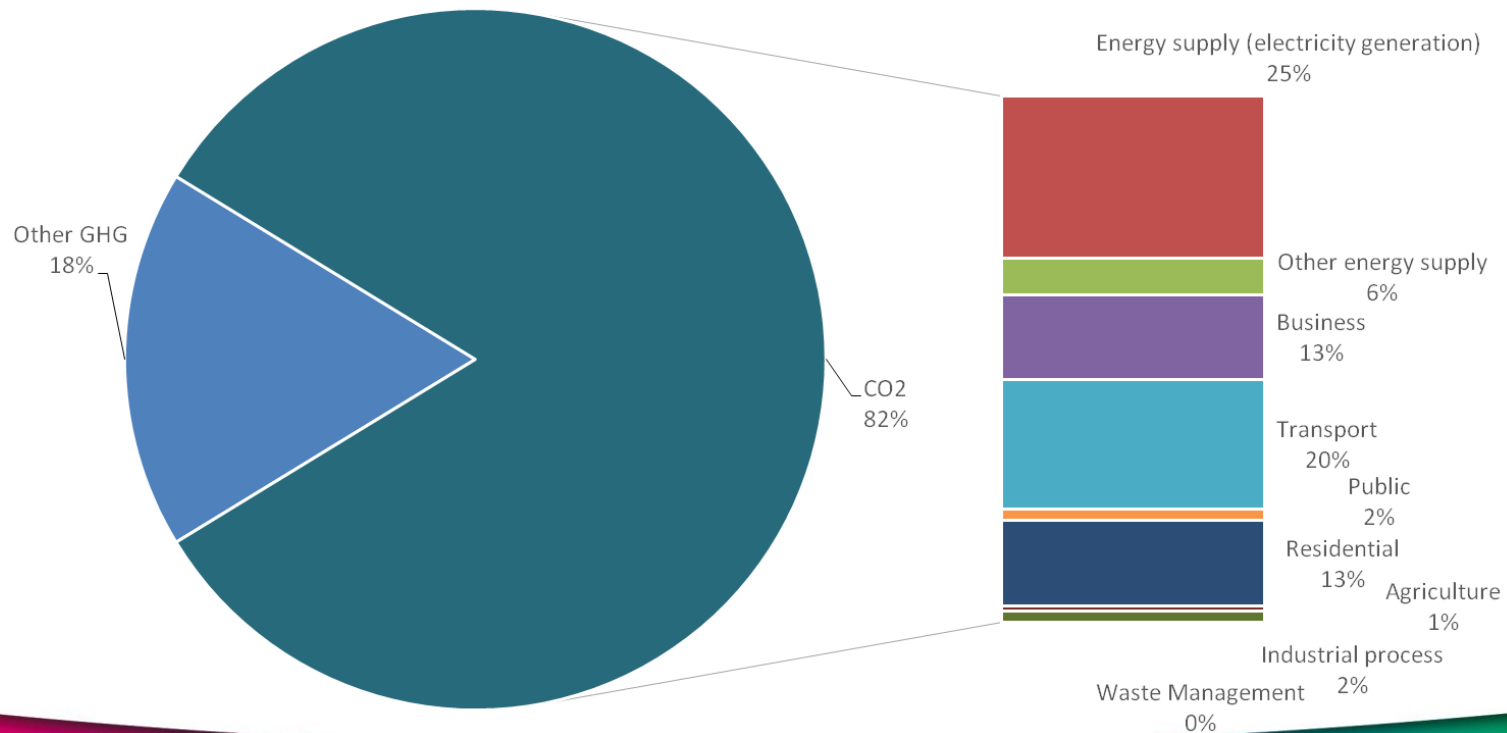
# Overview

- Brief overview of British situation
  - We are in need of lessons in best practice
- Thoughts on the energiewende

# Energy use is biggest source of CO2 in UK so energy policy is important to GB

(Bridget Wooden Year 2 slides)

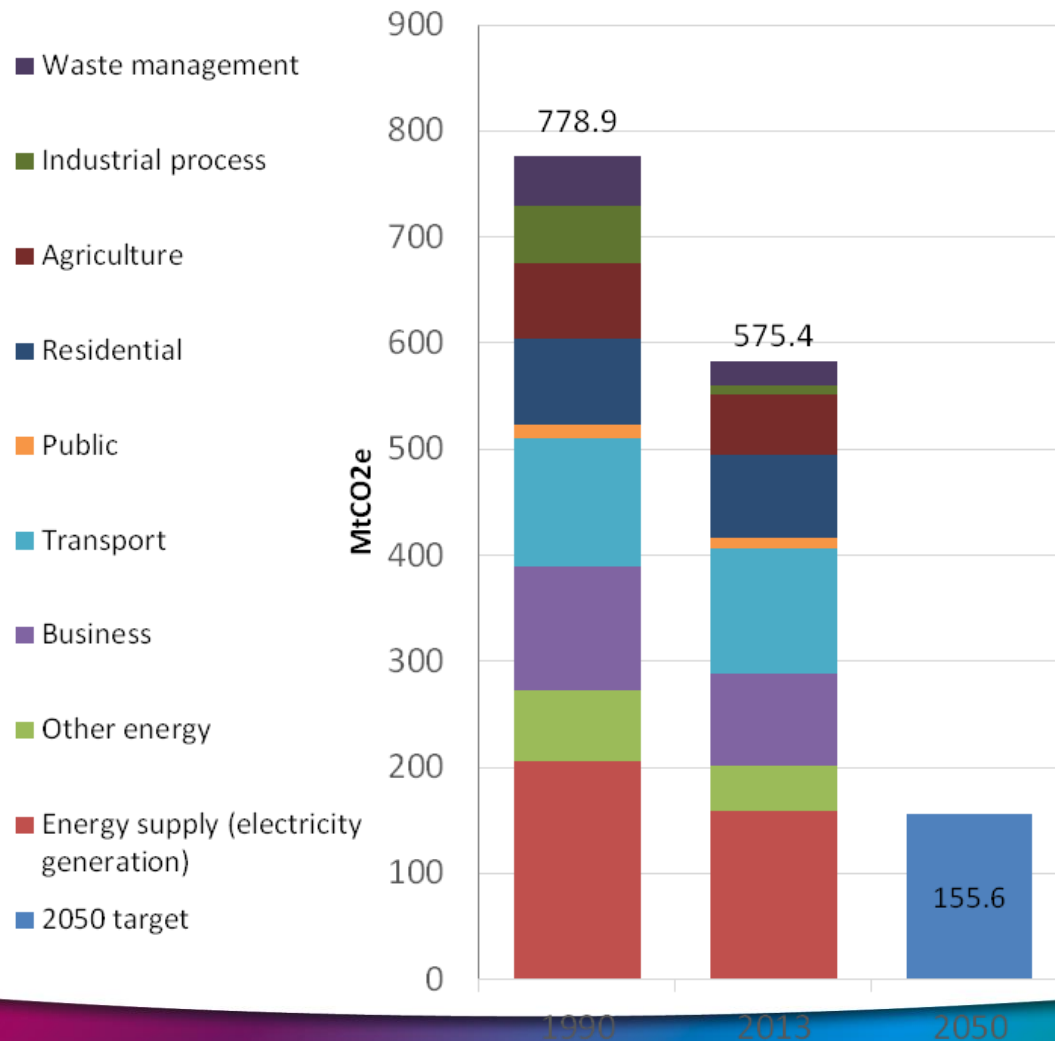
UK GHG emissions 2013



# GB is not on track to meet 2050 targets of an 80% cut from 1990

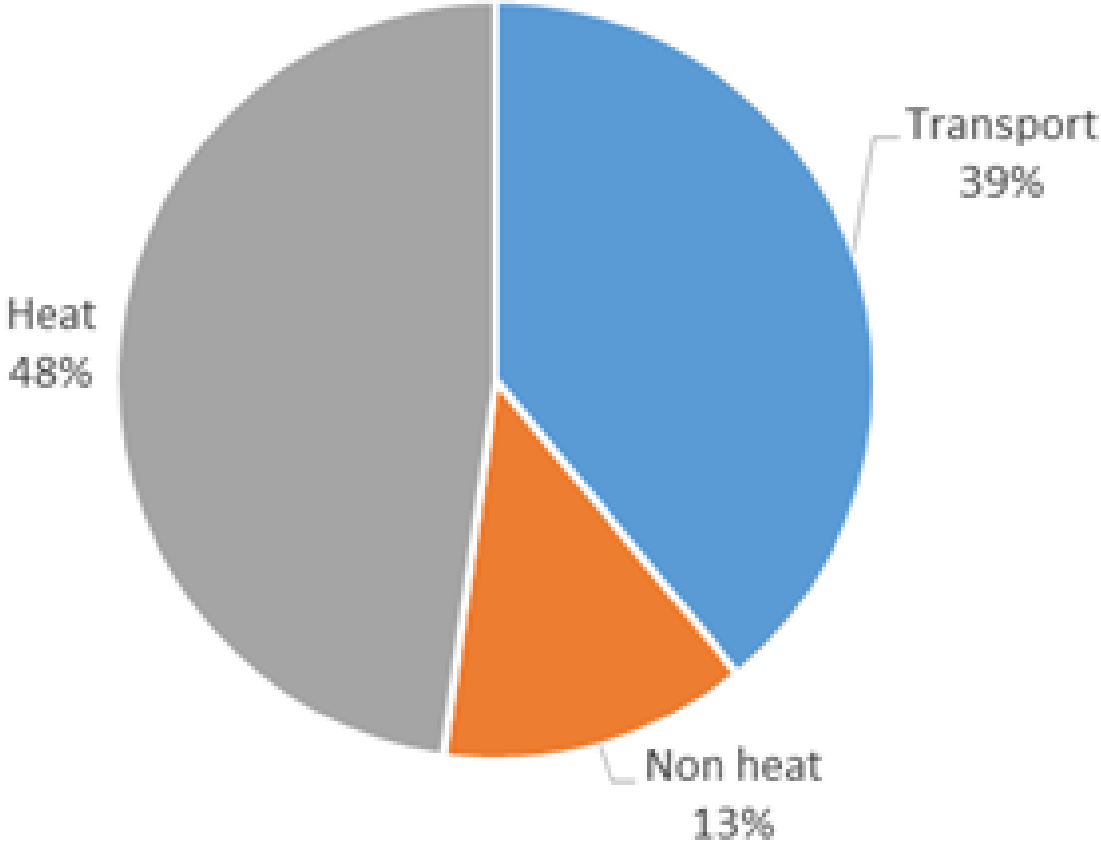
Thanks to Bridget Woodman for Slide; see also Meeting Carbon Budgets – 2016 Progress Report, CCC, <https://www.theccc.org.uk/wp-content/uploads/2016/06/2016-CCC-Progress-Report.pdf>

## UK GHG emissions: the scale of the challenge

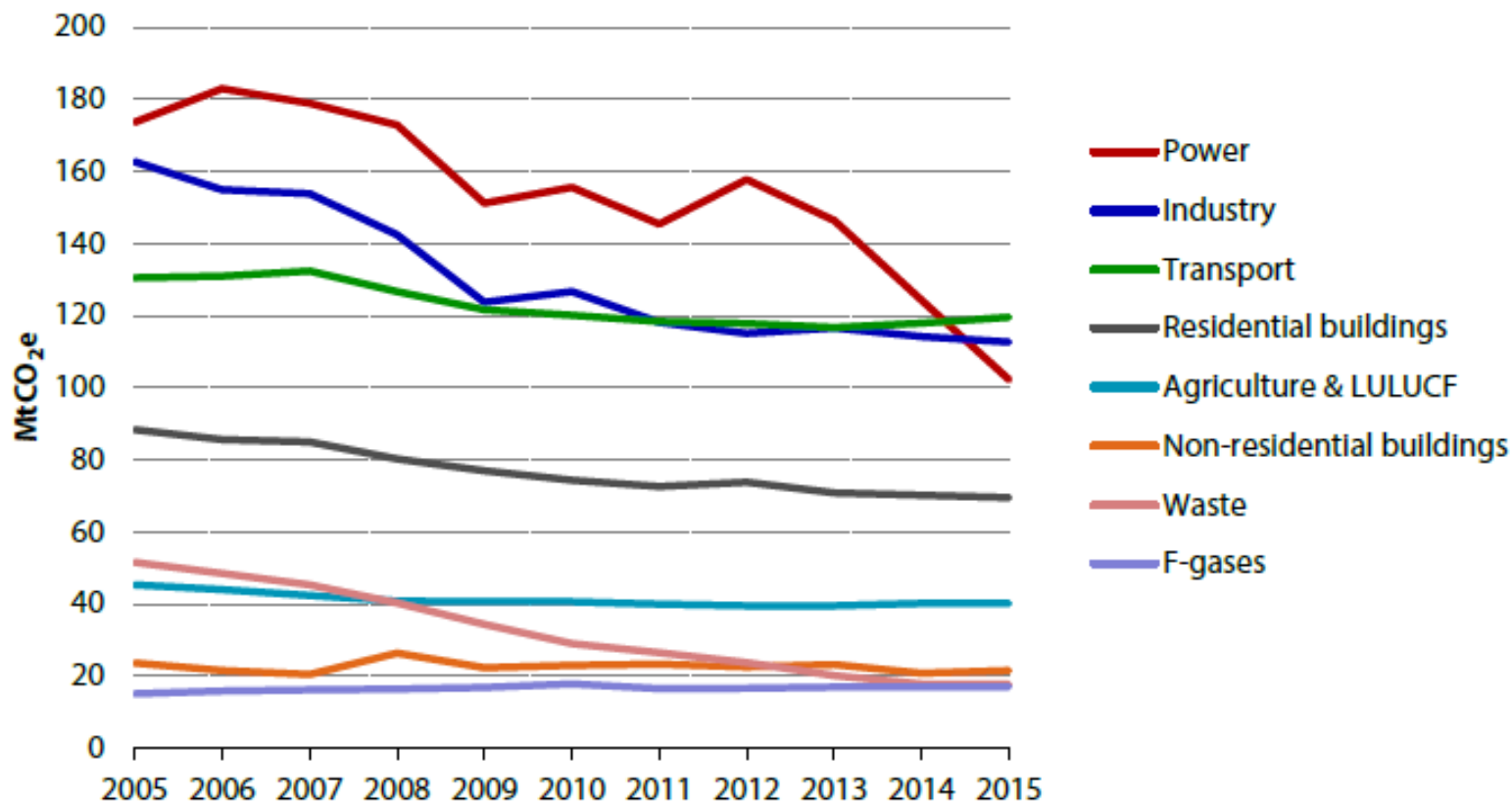


(Source: Dec 2014 Energy Trends, thanks to BW for slide)

# Energy use in the UK 2013



**Figure 1. Progress reducing emissions since 2012 has been almost entirely due to the power sector**



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

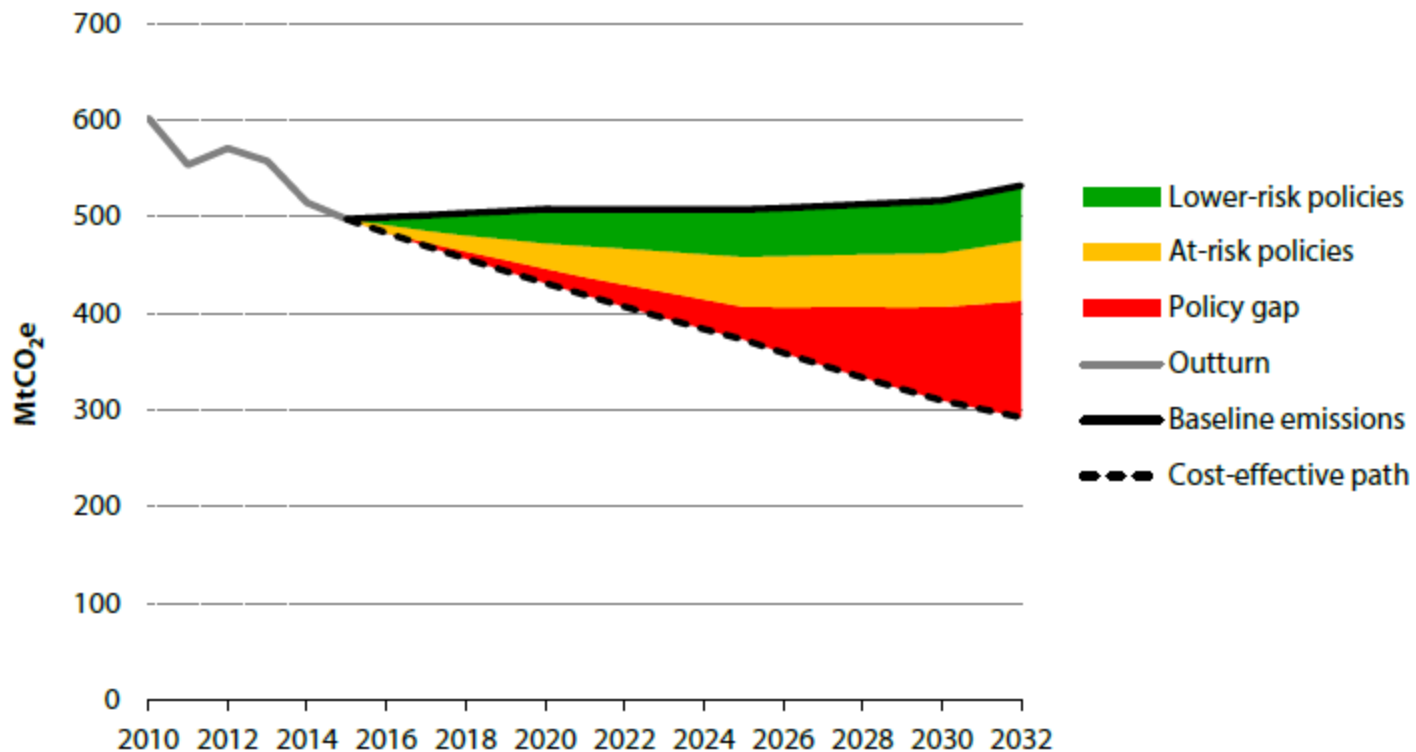
**Notes:** Chart shows temperature-adjusted emissions in power, residential and non-residential buildings. This smooths out the large changes in heating emissions between years with mild and cold winters to give a clearer impression of genuine progress.

# Summary Slide

[https://www.theccc.org.uk/wp-content/uploads/2016/06/2016-CCC-](https://www.theccc.org.uk/wp-content/uploads/2016/06/2016-CCC-Progress-Report.pdf)

Progress-Report.pdf

**Figure 2. Assessment of current policies against the cost-effective path to meet carbon budgets and the 2050 target**



**Source:** DECC (2015) *Updated energy and emissions projections*; CCC analysis.

**Notes:** 'Lower-risk policies' (green) are those that aim to address known barriers and have sufficient funding and ambition to deliver with reasonable confidence. 'At-risk policies' (amber) either lack sufficient funding, do not address known barriers or have important design elements still to be confirmed. No funded policies exist to close the 'policy gap' (red), even though the Committee's scenarios identify abatement options to do so that are on the lowest cost path to meet the carbon budgets and the 2050 target. 'Baseline emissions' is the likely path of emissions in the absence of policy effort.

# Three fundamental viewpoints on the Energiewende

- Great – it shows how a few good policies can really make a difference to even big, industrial countries
  - Those that (broadly) want a sustainable energy future (countries, States, companies, academics, NGOs etc)
- Oh no, we don't want that
  - Those companies which learned certain lessons of the Energiewende, and did not want that to happen to them or their markets
- It is too expensive and too interventionist
  - Liberal economists; countries which follow the rhetoric of a liberal economy; those that don't want a sustainable energy future; those that don't want change before their assets are fully used



# Thoughts on the Energiewende

- At the time in 1990, when 1<sup>st</sup> serious RE policies were being put in place, Germany had very limited RE activity industry
- The very early history (pioneers / policy) of RE development in Germany meant that Germany followed a very pragmatic (FIT, access to grid) transformational policy which promoted a spectrum of ownership, new entrants and new ways of doing things, which has also been a good industrial policy
- It offers hope that a country can do a lot with a few good policies and political leadership

# Thoughts on the Energiewende (2)

- (I think) it is very important for the Globe that Germany forges ahead successfully with its transition
  - I want Germany to be a success story
  - I don't want companies / countries to be able to say 'look, even Germany could not do it'
- So, a lot of attention is on German EP / Energiewende
  - this increases resistance to it (hence, its expensive and too interventionist type remarks)
  - It also sets the bar for countries / States which want to emulate it

# Thoughts on the Energiewende (3)

- In some ways, pressure on the Energiewende is easing
  - It is not just Germany and Denmark which is progressive (eg California and New York are trying to be as successful)
  - There is increasing evidence about the needs of a sustainable energy system, beyond German evidence
    - for example, as variable RE penetration increases, the value of flexibility and co ordination is becoming clearer Eg India, China
    - for example, as onsite generation increases, the issues around network charging has become clearer Eg S.Australia
  - This makes us realise that importance of governance arrangements
    - Not just policies, but also institutions, markets, networks etc

# Thoughts on the Energiewende (4)

- Germany anyway (naturally) has its own difficulties of transformation, exclusive of all the expectations on it:
  - Has to move beyond supply into system operation and co-ordination / integration issues
  - (yin and yang) eg 900 or so municipalities (generally a good thing) are making system coordination / appropriate institutional arrangements more complex

# Thoughts on the Energiewende (5)

- The Energiewende itself is very ambitious, and requires confidence as a Nation in its ideas
- The recent move from FITs to RE auction policy does not seem to carry on the pragmatic, broad spectrum of support mentality of the first 25 years
  - Just one false step, and nothing more than that?
  - Or is it a loss of confidence or resolve?
    - Is the confluence of events which came together as political resolve from the early 1990s to 2012/3 still there?
  - It makes me wonder:
    - Can a country (as with most other institutions) carry on being continuously creative with public policy? Particularly given the pressure?
    - Will it take a breather? Like Denmark, after the 2002 Conservative Government?
  - Will the German Federal / Lander system ensure its continuous development?

# Thankyou

For more information, please go  
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<http://projects.exeter.ac.uk/igov/>