

UK policy and approach towards zero energy buildings

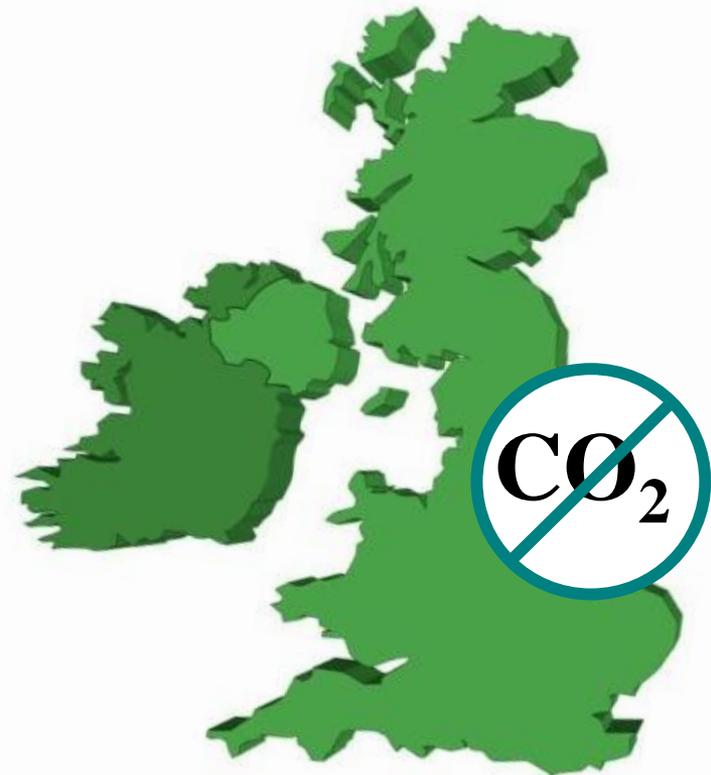
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REHVA

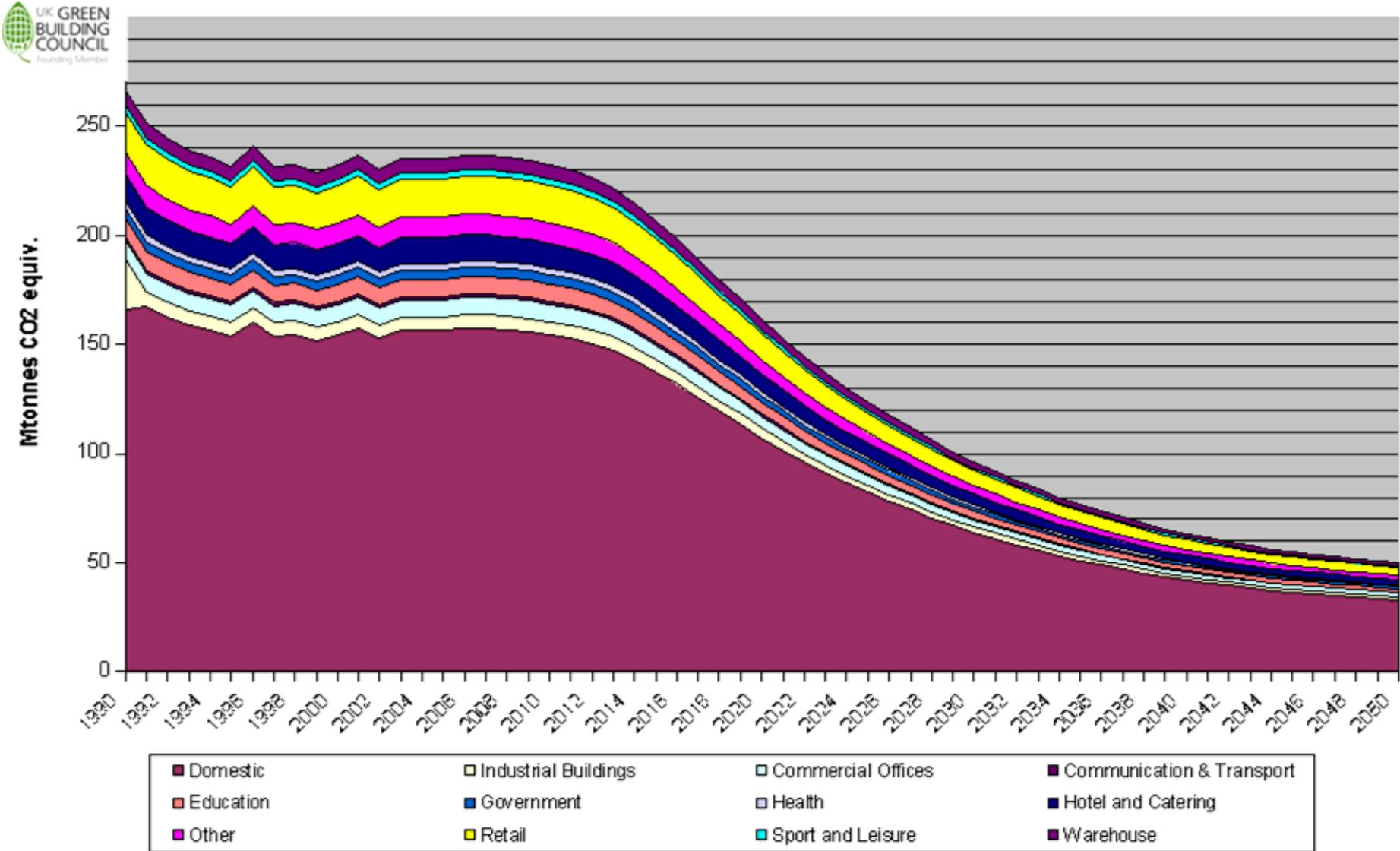


UK Policy on energy and carbon emissions is moving very rapidly at present

- Current initiatives
- Reasons – the context
- What we can do



The Low Carbon Energy Pathway



UK commitments to zero carbon

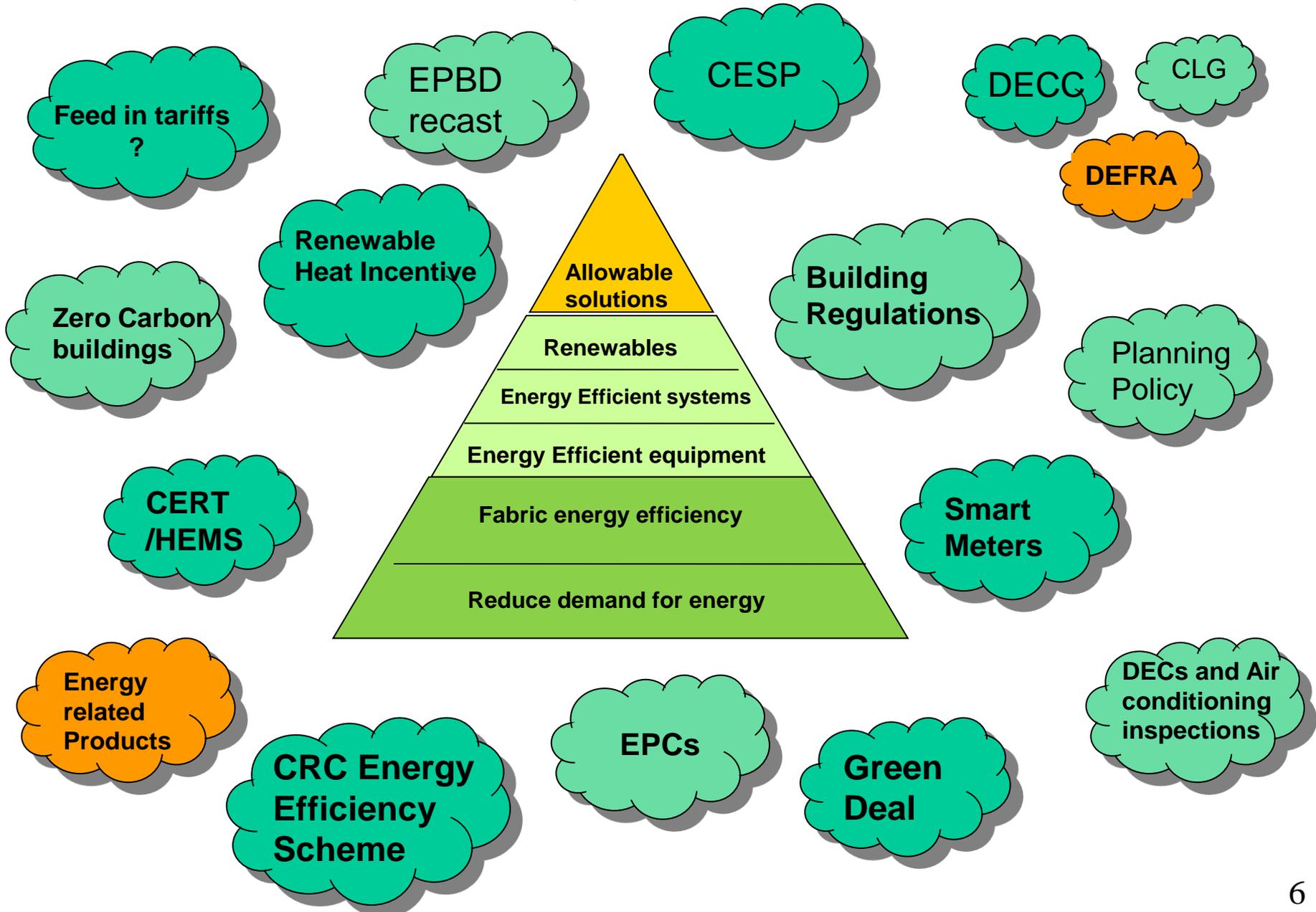
- UK committed to zero carbon homes from 2016
- Non domestic schools and hospitals from 2018
- And all other buildings to be zero carbon from 2019
- Changes to the EU Energy Performance of Buildings Directive, agreed in 2010, set a final deadline for “nearly zero energy” buildings by 2020

Biggest current issues:

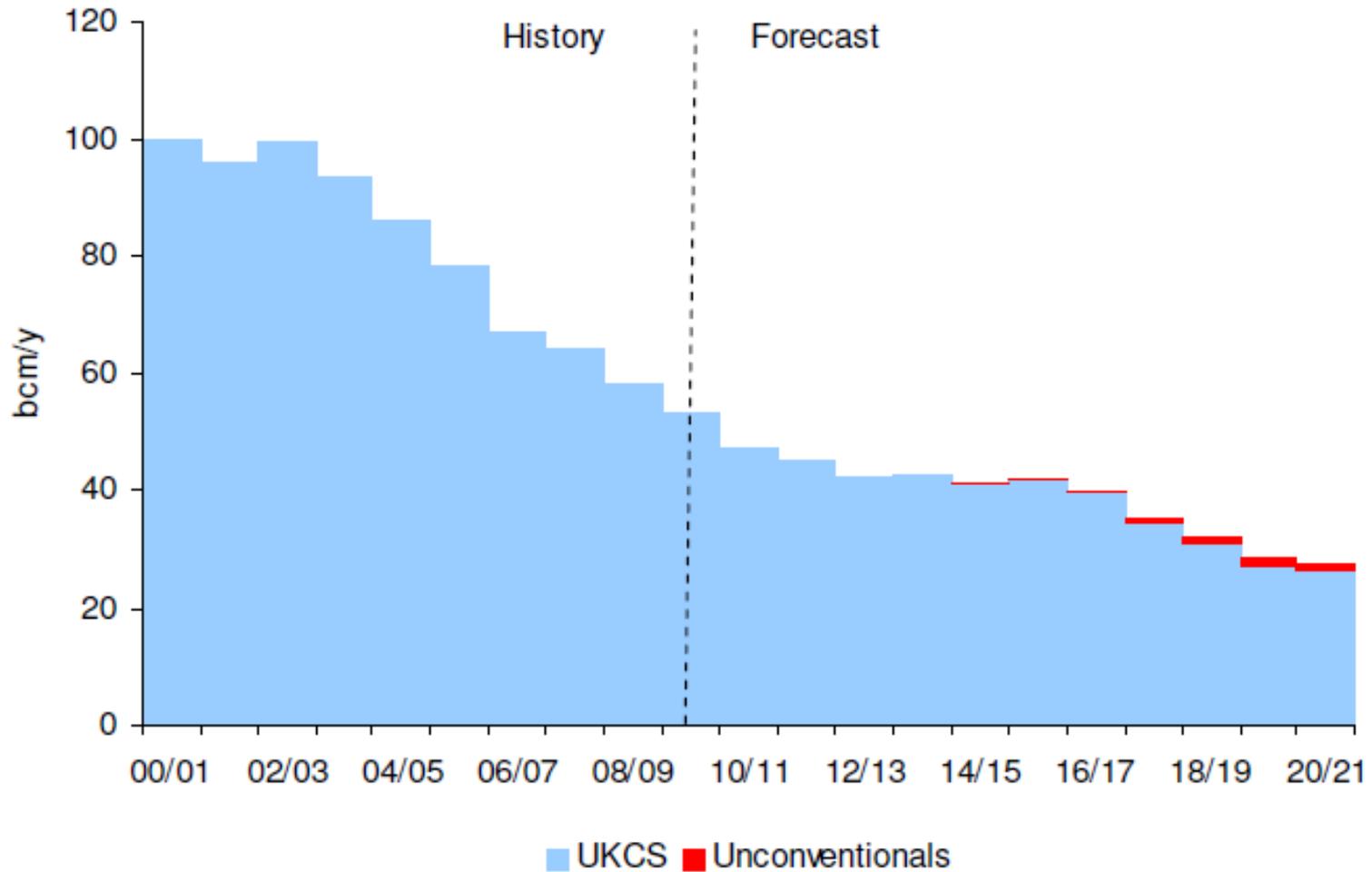
- Carbon Reduction Commitment (CRC)
- Green Deal
- Zero carbon buildings target
- Changes to the EPBD
- Trying to achieve reasonable compliance with the current EPB Regulations
- 2013 changes to UK Building Regulations
- Wider roll out of Display Energy Certificates

What's in the current policy mix?

Who leads on what?

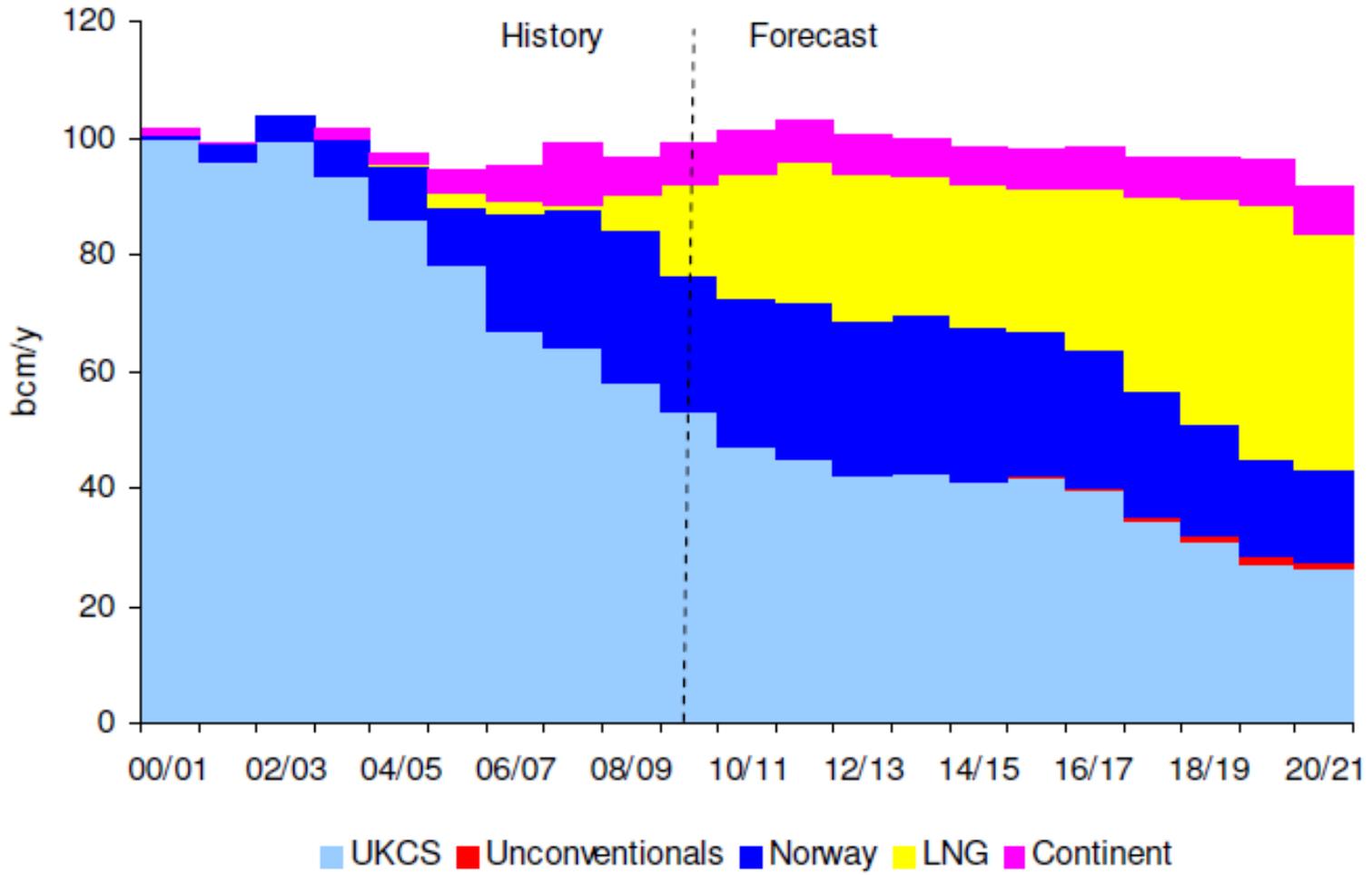


The Real Energy Pressure - Supply View to 2020



Source: Professor David Fisk

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Liquid Natural Gas (LNG)

– *so that's alright then...*



The “Mozah”, the largest boat to pass through the Suez Canal, with 135,400 cubic metres of LNG, bound for the UK in 2011.

Source: Professor David Fisk

Draft Carbon Plan

– *released in March, 2011*



“A vision of a
changed Britain”

Draft Carbon Plan – *main chapter headings*

Chapter 1: The challenge of climate change – Our approach

Chapter 2: Secure, sustainable low carbon energy

Chapter 3: Saving energy in homes and communities

Chapter 4: Reducing emissions from business and industry

Chapter 5: Towards low carbon transport

Chapter 6: Cutting emissions from waste

Chapter 7: Managing land sustainably

Chapter 8: Reducing emissions in the public sector

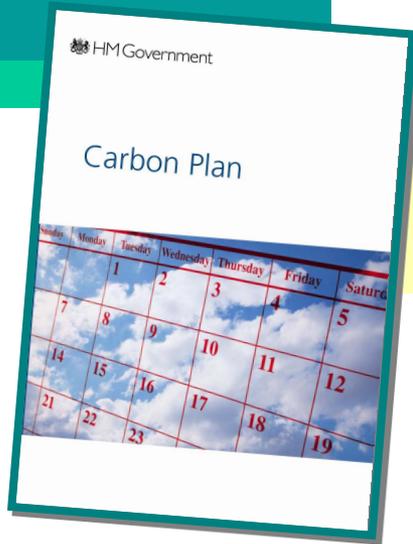
Chapter 9: Developing leadership within the European Union

Chapter 10: Building the case for global ambition with key countries and international institutions

Chapter 11: Supporting the development of low carbon, climate resilient economies

Chapter 12: Ensuring progress within international climate negotiations

Chapter 13: Action in Northern Ireland, Scotland and Wales



Draft Carbon Plan – chapter 3

CHAPTER 3: SAVING ENERGY IN HOMES AND COMMUNITIES



Draft Carbon Plan – chapter 3

Actions

Start date	End date	Description	Department responsible
Started	Mar 2011	Examine the operation of the energy performance of buildings regime to ensure it is capable of supporting Green Deal delivery	DECC/DCLG
Started	Apr 2011	Analyse consultation responses and develop plan for subsequent phases of the [Smart Meters]* programme	DECC
Started	Jun 2011	Work with potential providers to facilitate early precursor offers to the Green Deal	DECC
Started	Sep 2011	Develop accreditation process to ensure public confidence in Green Deal measures	DECC
Started	Jan 2012	As part of broader sustainability information available under the Green Deal, develop advice on water efficiency	Defra

Draft Carbon Plan – chapter 3

Started	Apr 2012	Improve the Content, format and quality of Energy Performance Certificates (EPCs) to support the Green Deal, and ensure requirements are complied with	DCLG/DECC
Started	Jul 2012	Subject to consultation, work with industry to confirm technical specifications and begin roll out of smart meters across Britain	DECC
Started	Oct 2012	Develop policies to increase demand for the Green Deal, alongside core finance offer	DECC
Started	Oct 2012	Enable the Green Deal by developing proposals for reviewing take-up and possible regulation of the private rented sector, providing access to Energy Performance Certificate data and linking the EPC to Green Deal legislation	DCLG/DECC
Started	Oct 2012	Encourage local authorities to become involved in delivering energy efficiency in their areas and social landlords to take action to improve the energy performance of their stock, using the Carbon Emissions Reduction Targets and the Green Deal to augment Decent Homes funding where appropriate, to stimulate the Green Deal and provide greater certainty to suppliers	DCLG/DECC

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Apr 2011	Apr 2011	Subject to consultation, publish detailed implementation plan leading to full roll out [of Smart Meters],* beginning in summer 2012	DECC
Oct 2011	Jan 2012	Consult on secondary legislation to enable the Green Deal, including the new obligation on energy companies	DECC
Dec 2011	Mar 2012	Consult on revisions to Part L 2013 [conservation of fuel and power]* of the Building Regulations	DCLG
Jan 2012	Jan 2012	Lay secondary legislation [to enable Green Deal]* before Parliament	DECC
2016	Ongoing	Introduction of zero carbon build standard for new homes	DCLG

Key energy policies for homes

- **Building Regulations**
 - “zero carbon” new build
 - reducing emissions from existing homes
- **Green Deal**
 - installing energy efficiency measures in existing homes
- **Incentives to install renewables** through the Feed in Tariff (FIT) for electrical installations and the Renewable Heat Incentive (RHI) for heat supplies

Draft Carbon Plan – chapter 4

CHAPTER 4: REDUCING EMISSIONS FROM BUSINESS AND INDUSTRY



Draft Carbon Plan – chapter 4

Action

Start date	End date	Description	Department responsible
Started	Mar 2011	Consultation on and implementation of first stage of simplification of Carbon Reduction Commitment Energy Efficiency scheme. Informal dialogue on wider simplification continues	DECC
Started	Sep 2011	Develop accreditation process to ensure public confidence in non-domestic Green Deal measures	DECC
Started	Dec 2011	Put staff and back office systems in place [for the Green Investment Bank]*, in preparation for the launch of the incubation phase	BIS
Started	Jan 2012	Develop advice on water efficiency as part of broader sustainability information available under the Green Deal	Defra

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Started	Oct 2012	Extend Display Energy Certificates to commercial buildings	DCLG/DECC
Started	Oct 2012	Develop policies to enable application of Green Deal to the commercial sector, alongside household offer	DECC
Apr 2011	Apr 2011	Publish report outlining abatement potential, barriers and opportunities for key energy intensive sectors	BIS/DECC
Apr 2011	Apr 2011	Provide certainty and clarity for business and investors by launching a roadmap to a green economy with BIS and DECC, including by using insights from behavioural science	Defra
Apr 2011	May 2011	Publish a Natural Environment White Paper setting out measures to: protect wildlife, promote green spaces and wildlife corridors; value natural capital, complementing national accounts; and produce an analysis of the state of the UK's natural asset base (the National Ecosystems Assessment)	Defra
May 2011	May 2011	Design of Green Investment Bank complete and published	BIS

Draft Carbon Plan – chapter 4

May 2011	Dec 2011	Continue market testing for the role of the Green Investment Bank beyond the incubation phase	BIS
Oct 2011	Jan 2012	Consult on secondary legislation to enable the Green Deal, including the new obligation on energy companies	DECC
Dec 2011	Mar 2012	Consult on revisions to Part L 2013 [conservation of fuel and power]* of the Building Regulations	DCLG
Jan 2012	Jan 2012	Lay secondary legislation [to enable Green Deal]* before Parliament	DECC
Sep 2012	Sep 2012	Green Investment Bank operational	BIS
May 2013	May 2013	First annual data released on the funds in and size of investments made by the Green Investment Bank	BIS
2019	Ongoing	Enable all new non domestic buildings to be zero carbon	DCLG

Key energy policies for non-domestic buildings

- **Building Regulations**
 - “zero carbon” new build
 - reducing emissions at refurbishment
- **Green Deal**
 - installing energy efficiency measures in existing non-domestic buildings
- **Renewable Heat Incentive (RHI)** for heat supplies
- **Green Investment Bank** to fund low carbon activity

What we can do

- Public interest in environmental issues is declining
- Politicians can't press on too far ahead of public opinion
- We need to have an impact on public opinion

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- Public interest in environmental issues is declining
- Politicians can't press on too far ahead of public opinion
- We need to have an impact on public opinion
- We dare not let matters rest
 - we hold the earth in trust for future generations



UK Government's view of us as an industry – research is important – but:

- We've already got far more research results than the British Industry is putting into practice
- Far too fragmented – the various specialist sectors don't talk to each other nearly enough (including the HVAC)
- In consequence – the average is well short of the best

Charles Darwin (1809 – 1882):

“In the long history of humankind those who learned to collaborate effectively have prevailed”

