

# **BUILDING LEGISLATION AFTER 'BREXIT' AND 'HACKITT'**

28<sup>th</sup> February 2018 Dr Hywel Davies Technical Director Chartered Institution of Building Services Engineers



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#### To summarise this talk in one sentence:

I am going to explore the potential implications of leaving the EU and of the Independent Review of Building Regulations and Fire Safety for energy & building related legislation



## My direction of travel this evening

the Climate Change Act commits us to an 80% cut in carbon emissions relative to 1990 levels by 2050;

Dame Judith Hackitt is leading the most far reaching review of legislation covering how we build and how we manage safety and operation of buildings in a working lifetime;

we are committed to leaving the EU.



## And my destination this evening

This is a time of unprecedented change for building related legislation.

Whilst "Brexit" and "Hackitt" attract attention and headlines, the progressive tightening of the Climate Change Act and the targets set out in the five yearly carbon budgets will constrain any changes to legislation relating to energy use in buildings.



## **Energy Policy and Building Legislation**

With the UK committed to the process of leaving the EU in April 2019, what are the potential implications for policy and legislation relating to energy and buildings?

What are the likely outcomes of the 'EU Withdrawal Bill' and its impact on the Energy Performance of Buildings Regulations, various Energy Efficiency Directive measures, Renewables policy and the Construction Products Regulation?

Where do the Climate Change Act and the Building Regulations and the Energy Performance of Buildings Regulations fit into the picture?

And what about Dame Judith Hackitt's Independent Review of the Building Regulations and Fire Safety Regulations?



#### **Presentation outline**

- Energy related policy meets Building related legislation
- Climate Change Act & Carbon Budgets 4 & 5
- UK government's Clean Growth Strategy
- Climate Change Committee & the Clean Growth Strategy
- Independent Review of Building Regulations & Fire Safety
- Life after Brexit...?
- European Union (Withdrawal) Bill 2017-19
- Building Regulations
- Minimum Energy Efficiency Standards (MEES)
- ESOS & Metering and Billing
- Energy Performance of Buildings Directive



## The End of the Beginning







"There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don't know. But there are also unknown unknowns. There are things we don't know we don't know."

Donald Rumsfeld, February 2002



#### **Known Knowns**

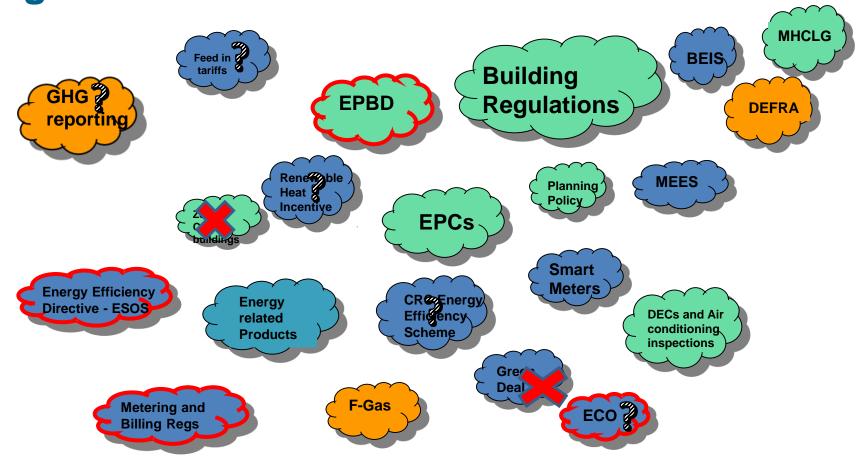


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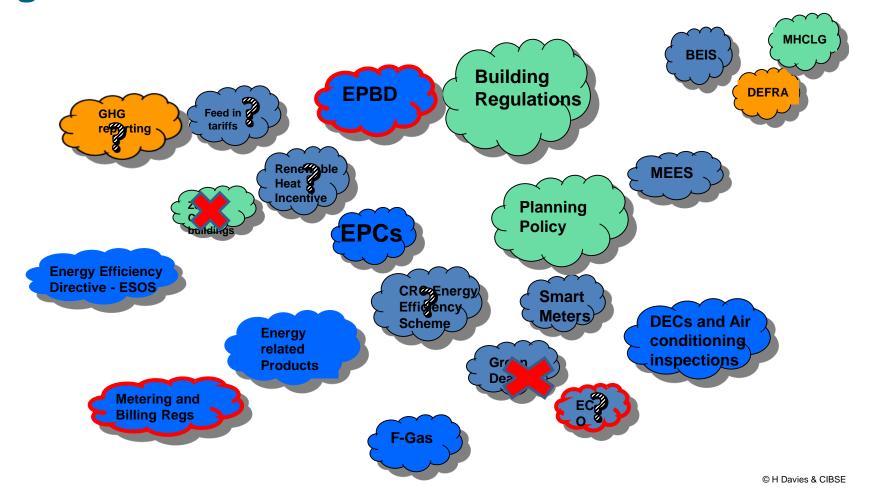
Energy related policy meets Building related legislation



## **Building, Energy and Emissions Legislation**



## **Building, Energy and Emissions Legislation**



- 1. CRC Energy Efficiency Scheme (CRC) (until 2019)
- 2. Climate Change Agreements (CCAs) & Climate Change Levy (CCL)
- 3. Energy Performance Certificates (EPCs), Display Energy Certificates (DECs) & Air conditioning inspections
- 4. Building Regulations (Part L, ADL2A, ADL2B)
- 5. Minimum Energy Efficiency Standards (for rented buildings)
- 6. F-Gas Regulation & related requirements
- 7. Smart Meters
- 8. Metering and Billing Regulations
- 9. Enhanced Capital Allowances (ECAs)
- 10.EU minimum energy performance standards and labelling (ErP)
- 11. Mandatory Greenhouse Gas (GHG) reporting
- 12. Energy Savings Opportunity Scheme (ESOS)

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- Climate Change Act & Carbon Budgets 4 & 5



## **Climate Change Act**



## **Climate Change Act 2008**

- UK Domestic Legislation
- Commits UK to significant emissions reductions to 2050 – 80% relative to 1990 emissions levels
- Not directly linked to EU legislation
- But EU led measures contribute to emissions reductions...
- So how might Brexit and Climate Change Act interact?



## **Climate Change Act 2008**

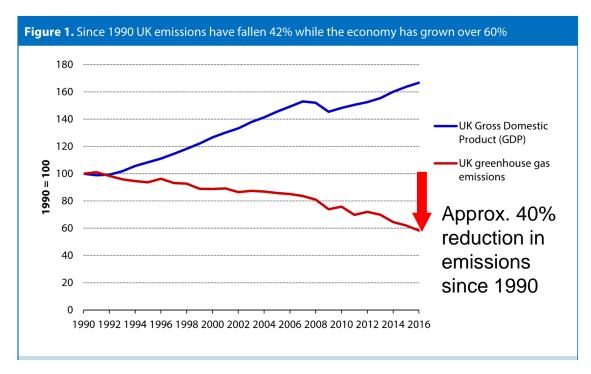
It is the duty of the Secretary of State to ensure that greenhouse gas emissions are reduced by 80% by the year 2050, relative to 1990 levels

Carbon Budget 5 aims to reduce emissions by 57% by 2030, relative to 1990 emissions

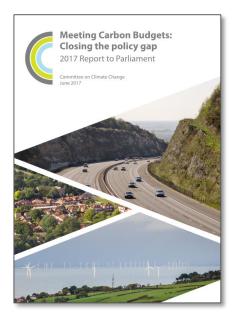




#### Good news...



But...



(Source: Committee on Climate Change, 2017)

We have decoupled GDP from energy and emissions

## **Carbon Budgets 1 to 5**

Budget	Carbon budget level	levels
1st carbon budget (2008 to 2012)	3,018 MtCO2e	25%
2nd carbon budget (2013 to 2017)	2,782 MtCO2e	31%
3rd carbon budget (2018 to 2022)	2,544 MtCO2e	37% by 2020
4th carbon budget (2023 to 2027)	1,950 MtCO2e	51% by 2025
5th carbon budget (2028 to 2032)	1,725 MtCO2e	57% by 2030

Source: Committee for Climate Change



## Climate Change and EU Exit

We have already ratified the Paris Agreement: in the EU or outside the EU we are committed to those actions and carbon reductions.

An EU exit does not directly undermine any targets set by the Climate Change Act

An EU exit <u>may</u> have an impact on policies and measures which contribute towards achieving the targets set by the Climate Change Act



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- UK government's Clean Growth Strategy





Published by UK Government in October 2017

"In order to meet the fourth and fifth carbon budgets (covering the periods 2023-2027 and 2028-2032) we will need to drive a significant acceleration in the pace of decarbonisation and in this Strategy we have set out stretching domestic policies that keep us on track to meet our carbon budgets."

Clean Growth Strategy, pg9





#### The Strategy then continues:

"But hitting our carbon budgets and expanding the low carbon economy will not be easy. We have achieved significant results in the power and waste sectors and now need to replicate this success across the economy, particularly in the transport, business and industrial sectors.

We also need to reduce the emissions created by heating our homes and businesses, which account for almost a third of UK emissions.

If done in the right way, cutting emissions in these areas can benefit us all through reduced energy bills, which will help improve the UK's productivity, and improved air quality, while the innovation and investment required to drive these emissions down can create more jobs and more export opportunities."



- 102 policies and measures overall
- 51 relate to buildings and industry
- 17 to industry and commercial buildings
- 17 relating to improving our homes

Significant potential opportunity – <u>if</u> followed through



#### **Presentation outline**

- Energy related policy meets Building related legislation
- Climate Change Act & Carbon Budgets 4 & 5
- UK government's Clean Growth Strategy
- Climate Change Committee & the Clean Growth Strategy



## **Committee for Climate Change**



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



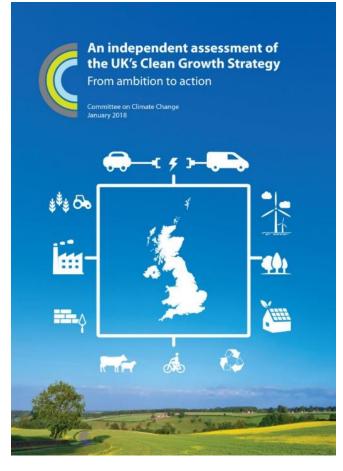
## **Committee for Climate Change**

- Created by 2008 Act to provide independent advice to government and Devolved Administrations on emissions targets and report to Parliament on progress in reducing greenhouse gas emissions and preparing for climate change. (So far this has been done annually).
- Chaired by Lord Deben (John Gummer); served under Mrs Thatcher and was Environment Secretary under John Major
- Focus is to:
  - Provide independent advice on setting and meeting carbon budgets and preparing for climate change
  - Monitor progress in reducing emissions and achieving carbon budgets and targets
  - Conduct independent analysis into climate change science, economics and policy
  - Engage with a wide range of organisations and individuals to share evidence and analysis



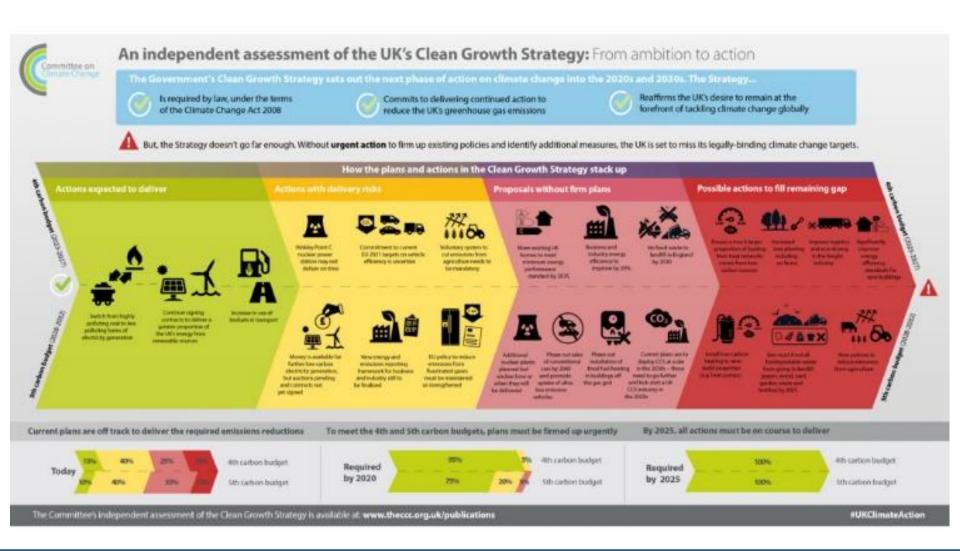
## An independent assessment of the Clean Growth Strategy

This report provides the Committee on Climate Change's response to the UK Government's Clean Growth Strategy.





## Key findings of the assessment



## The report finds that

- The Government has made a strong commitment to achieving the UK's climate change targets.
- Policies and proposals set out in the Clean Growth Strategy will need to be firmed up.
- Gaps to meeting the fourth and fifth carbon budgets remain.
   These gaps must be closed.
- Risks of under-delivery must be addressed and carbon budgets met on time.



# Significance of the Committee for Climate Change

- On issues relating to Climate Change the government is currently called to account on a regular basis by a genuinely independent and properly resourced body who are not subject to political constraints.
- Scrapping swathes of energy and emissions related legislation just because it had a blue flag with gold stars on it once is going to be very difficult.
- The Committee is currently an important check on unrestrained deregulation post Brexit.

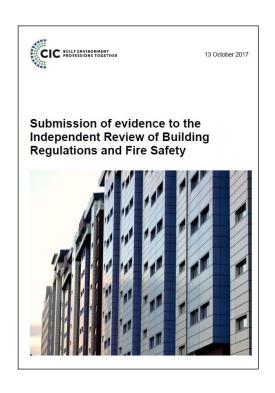


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## Building Regulations – Independent Review







**(** 



# Building a Safer Future Independent Review of Building Regulations and Fire Safety: Interim Report

Presented to Parliament
by the Secretary of State for Communities and Local Government
by Command of Her Majesty

#### Interim report key findings

The work of the review to date has found that **the** current regulatory system for ensuring fire safety in high-rise and complex buildings is not fit for purpose. This applies throughout the life cycle of a building, both during construction and occupation, and is a problem connected both to the culture of the construction industry and the effectiveness of the regulators.

#### **Dame Judith Hackitt**

"I have been shocked by some of the practices I have heard about and I am convinced of the need for a new intelligent system of regulation and enforcement for high-rise and complex buildings which will encourage everyone to do the right thing and will hold to account those who try to cut corners.

"Changes to the regulatory regime will help, but on their own will not be sufficient unless we can change the culture away from one of doing the minimum required for compliance, to one of taking ownership and responsibility for delivering a safe system throughout the life cycle of a building."

#### The key reasons for this are:

- Current regulations and guidance are too complex and unclear. This can lead to confusion and misinterpretation in their application to high-rise and complex buildings.
- Clarity of roles and responsibilities is poor. Even where there are requirements for key activities to take place across design, construction and maintenance, it is not always clear who has responsibility for making it happen.
- Despite many who demonstrate good practice, the means of assessing and ensuring the competency of key people throughout the system is inadequate. There is often no differentiation in competency requirements for those working on high-rise and complex buildings.

#### **Key reasons - continued**

- Compliance, enforcement and sanctions processes are too weak. What is being designed is not what is being built and there is a lack of robust change control. The lack of meaningful sanctions does not drive the right behaviours.
- The route for residents to escalate concerns is unclear and inadequate.
- The system of product testing, marketing and quality assurance is not clear.

#### **Review Phase 2 workstreams**

- Design, construction and refurbishment establishing what industry and regulators need to do to fully embed building safety during the design and construction phase.
- Occupation and maintenance identifying what building owners, landlords and regulators need to do differently to ensure that building safety is prioritised when a building is occupied and throughout its life cycle.
- Products determining how the product testing and marketing regime can be improved.
- Competency establishing how competency requirements for key individuals involved in building and managing complex, high-risk buildings should change.
- Residents' voice determining the best way for residents to be given a clear, quick and effective statutory route for raising concerns on fire safety.
- Regulation and guidance resolving whether central Government ownership of technical guidance is the most appropriate model for complex and high-risk buildings.
- Procurement looking at the influence of procurement on our buildings

#### **Independent Review**

- Possible impact on next round of revisions to Part L and F
- Implications for Approved Documents & Compliance Guides
- May lead to changes in the structure of the guidance
- May trigger changes to the way in which guidance is delivered
- Building Act dates from 1984
- 1984 BC
- Before Computers
- We are now in 2018 AD
- Anno Digitalis

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- Life after Brexit...?



#### **Known Unknowns**



#### What might Brexit mean for current legislation?





#### **BRIEFING PAPER**

Number 07213, 26 August 2016

# Brexit: impact across policy areas



Edited by Vaughne Miller

#### Inside:

- 1. Background
- 2. Trade relations
- 3. Other economic impacts
- 4. Employment
- 5. Agriculture
- 6. Fisheries policy
- 7. Environment
- 8. Energy and Climate Change
- 9. Transport
- 10. Immigration
- 11. Justice and Home Affairs
- 12. Human rights
- 13. Social security
- 14. Health policy and medicines regulation
- 15. Higher education
- 16. Culture, communication, copyright, broadcasting, sport
- 17. Consumer policy
- 18. Foreign policy
- 19. International development
- 20. Defence and the armed forces
- 21. The devolved legislatures

- Covers 20 policy areas
- Most relevant to us are Energy and Climate Change and Environme nt

#### Life After "Brexit"

- What can we expect to happen to legislation around energy and emissions related to buildings?
- Climate Change Act commits us to further emissions reductions,
- Clean Growth Strategy confirms those commitments and sets out a range of policies, some previously announced, to deliver lower emissions, in particular low carbon heat,
- Committee for Climate Change emphasises that we need to do MORE, and we need to start doing it SOON!
- (Carbon Budget four starts in 4 years....)



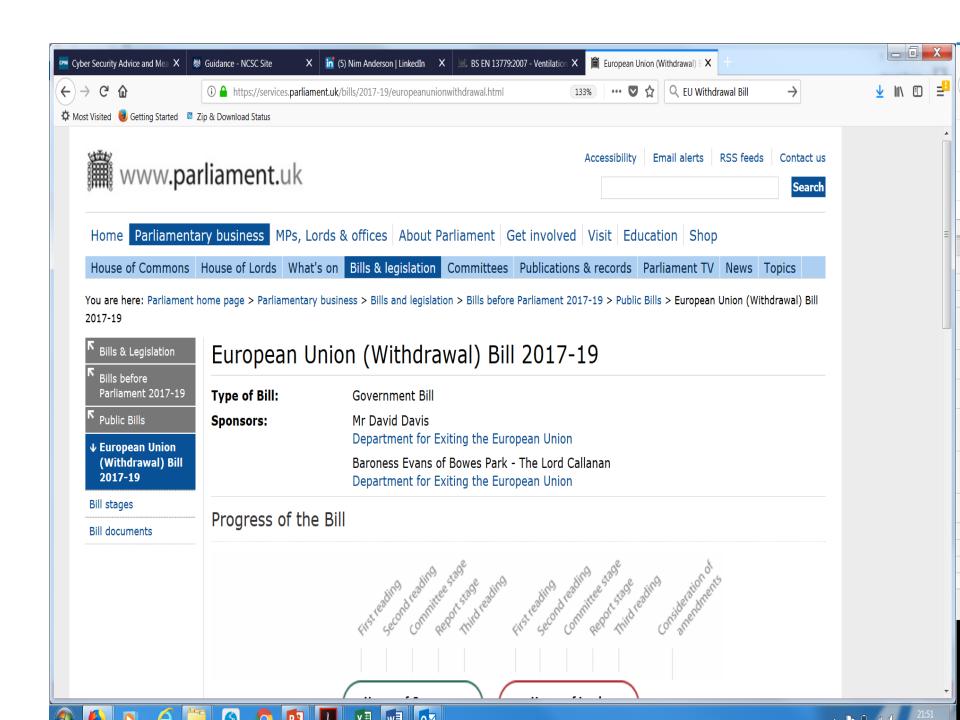
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### **European Union (Withdrawal) Bill**





#### **EU Withdrawal Bill**

- Currently at committee stage in the House of Lords
- Stated objective is to incorporate <u>ALL</u> currently applicable EU law into UK law, including EU Directives <u>and</u> Regulations
- Scope for review after 1 April 2019



#### **EU Withdrawal Bill**

- Whilst the stated objective is to incorporate <u>ALL</u> currently applicable EU law into UK law, including EU Directives <u>and</u> Regulations:
- This does not cover the overall or underlying principles set out in:
- The Treaties
- The Recitals to the Directives and Regulations all the numbered paragraphs at the start before the Articles, that begin "Wheras"...



#### So What?

- Important principles such as "Polluter Pays" may not be directly transposed into UK law
- Specific statements in recitals may not apply, eg:
- (9) The energy performance of buildings should be calculated on the basis of a methodology, which may be differentiated at national and regional level. That includes, in addition to thermal characteristics, other factors that play an increasingly important role such as heating and air-conditioning installations, application of energy from renewable sources, passive heating and cooling elements, shading, indoor air-quality, adequate natural light and design of the building. The methodology for calculating energy performance should be based not only on the season in which heating is required, but should cover the annual energy performance of a building. That methodology should take into account existing European standards.

EPBD Recast (2010) Recital (9)



#### Brexit and key energy policies for buildings

- Building Regulations Part L
  - carbon emissions targets for new build
  - reducing emissions from existing buildings
  - building services compliance guides
  - "nearly zero energy" buildings new and refurb!
- Minimum Energy Efficiency Standards
  - require F or G rated rented buildings to be improved
- Energy Efficiency Directive & ESOS
  - Identifying cost effective energy efficiency measures in existing buildings
- Metering and Billing Regulations
- Energy Performance of Buildings Directive

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#### **Building Regulations**

they are not just about Part L: also

Part F (Ventilation)

Part J (Combustion Appliances)

Part P (Electrical Safety – Domestic)

In total 23 Approved Documents and Compliance Guides



#### **Building Regulations Review**

 Clean Growth Strategy gives commitment to review Building Regulations:

"Following the outcome of the independent review of Building Regulations and Fire Safety, and subject to its conclusions, we intend to consult on

- improving the energy efficiency of new and existing commercial buildings
- strengthening energy performance standards for new and existing homes under Building Regulations, including futureproofing new homes for low carbon heating systems"

So we are "Waiting for Hackitt" (with apologies to Samuel Beckett)

We are also awaiting the EPBD required five yearly review

And we have EPBD waiting just around the corner....



#### ONLINE VERSION



The Building Regulations 2010

Conservation of fuel and power

L<sub>2</sub>A

**APPROVED DOCUMENT** 

L2A Conservation of fuel and power in new buildings other than dwellings

2013 edition – for use in England\*
ONLINE VERSION

#### **Building Regulations are now devolved**



#### ONLINE VERSION



The Building Regulations 2010

Conservation of fuel and power

LI2A

**APPROVED DOCUMENT** 

L2A Conservation of fuel and power in new buildings other than dwellings



The Building Regulations 2010

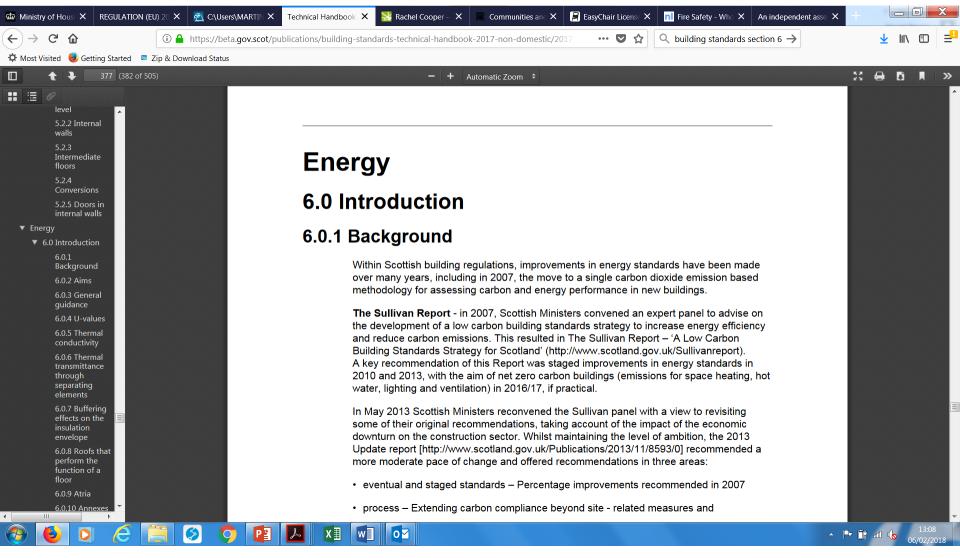
Conservation of fuel and power

# Approved Document 2A

New buildings other than dwellings

In effect from July 2014

## Scottish Building Standards – Section 6



#### **Building Regulations**

- Most recently updated in 2013, except for domestic boilers
- New efficiency requirements announced October 2017, coming into force in April 2018
- Amendments to the Domestic Building Services Compliance Guide published October 2017, to support the new requirements



#### **Cost Optimal Review**

- The EPBD requires Member States to review their minimum energy efficiency standards using a methodology set out in a Commission Regulation.
- First review was due in 2012 but was delayed to 2013 by the late arrival of the Regulation. Next review due in 2017.
- Part L was broadly cost optimal in the first report to EU.
- With the reduced prices of some energy efficiency measures, learning rates and innovation we might expect a shortfall in 2017, although energy prices will also have an impact.
- No industry engagement in this review.



# Review of 'minimum energy efficiency standards'

- This must be done at least every five years, so next review is due to be complete in 2018;
- Applies to England and the devolved administrations
- Must be informed by the cost optimal analysis;
- Will need to adopt those measures deemed to be cost optimal;
- Does NOT need to go beyond "cost optimal"!



#### Part L timetable

England will review Part L once the Independent Review is complete Scotland is already reviewing the Technical Standards

Scotland has specific targets set out in the Sullivan Review for reducing emissions from the built environment. These were scaled back in the wake of the financial crisis, but may be reconsidered as part of the overall review of Section 6

Wales is considering how to move forward; in 2010 there was a proposal to adopt more ambitious standards which was not adopted then, but could also re-emerge

Northern Ireland has it own requirements



### **Nearly Zero Energy Buildings**



#### Nearly zero energy' buildings & regulations

Nearly zero energy' buildings 'are already in the Building Regulations

Nearly zero-energy requirements for new buildings

**25B.** Where a building is erected, it must be a nearly zero-energy building.

The Building Regulations &c. (Amendment) Regulations 2012, SI 2012 No.3119

This is because they are a requirement of the 2010 EPBD Recast



#### Requirements for nearly zero energy buildings

- Given the timetable for nzeb 2021 for all and 2019 in some public buildings – the next version of Part L is the version that will apply for "nzeb"
- So from an energy efficiency perspective, anything that is needed to deliver nzeb probably needs to be cost optimal and to be adopted in 2018
- The forthcoming review of Part L is therefore going to be quite significant



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- Minimum Energy Efficiency Standards (MEES)



# Minimum Energy Efficiency Standards



### Minimum Energy Efficiency Standards (MEES)

- Domestic UK initiated legislation enacted in the Energy Act 2011
- Depends on EPC Regulations which are implemented within the current Building Regulations – so an EU measure enacted in domestic legislation
- EPCs originate from the EU EPBD
- Commitment to MEES restated in the Clean Growth Strategy, October 2017
- Delivery of MEES is assumed in the CCC response



### Minimum Energy Efficiency Standards (MEES)

MEES is perhaps the best example of the interdependence of UK domestic policy and EU initiated policy relating to buildings and energy

The clearly stated direction of travel since October 2017 means that we can be pretty confident that EPCs and MEES are a permanent part of the policy landscape

Now that MEES is upon us, there are further policy measures proposed in the Clean Growth Strategy calling for a target of making all homes C rated or better by 2030

All the language suggests that EPCs and the associated measures are now locked in to current policy development



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# **Energy Savings Opportunity Scheme**



# **Energy Savings Opportunity Scheme**

Published in November 2012, came into force in stages over 3 years Introduced four yearly energy audits for "large enterprises", with a "lead energy assessor" to oversee audits:

implementing Regulations and guidance published late June 2014 may also use Display Energy Certificates, Green Deal assessments should identify realistic cost effective improvements to energy use in the business (but there is no compulsion to implement) CIBSE now manages the largest register of ESOS Lead Assessors First cycle of audits completed by 5<sup>th</sup> December 2015

Second cycle of audits due by December 2019

Firms certified to ISO 50001 (was BS EN 16001) do not need to undertake ESOS



#### **ESOS**

- Further commitment to ESOS Round 2 included in the Clean Growth Strategy.
  - So ESOS looks set to stay through to 2019 at least
- ESOS may also provide the reporting base for "streamlined energy and carbon reporting" —
  which is expected to replace the reporting
  element of the Carbon Reduction Commitment,
  or CRC, when it ends in 2019

So may be here to stay for longer!



# **Metering & Billing Regulations**



## What are they?

- Implemented under the Energy Efficiency Directive
- Regulations which require all communal heating systems to be separately metered (unless it is not cost effective to do so).
- Communal heating means a central boiler in a multi tenanted building
- A case study in unintended impact and consequence
- But now that most of those affected have got to grips, please leave well alone....



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### **EPBD III**



#### **EPBD** – the next frontier....

- The European Council and Commission have signed off on the final text
- Goes to European Parliament in April for final approval stage
- Expected to coming into force in December 2019
- If so, then in theory it should be implemented under the "transitional arrangements"
- In theory, theory and practice are the same, but in practice...
- This is clearly a known unknown.



#### **EPBD** – the next frontier....

- Smart, simpler, supportive of building renovation
- New Art 2a on long term building renovation strategy
- Stronger links between renovation and availability of finance
- Updated provisions for air conditioning and boiler inspections
- Updated definition of "technical building systems" to include building automation and control and EV charging capability
- Requirements to provide EV charging infrastructure
- Introduction of a new "smart readiness indicator"



#### **EPBD** – the next frontier....

- The national renovation strategy moves to EPBD from EED
- High Efficiency Systems continue to have to be "considered" for new build and major refurbishment
- Considered, not necessarily used....
- EV charging infrastructure for charging points for 1 in 5 parking spaces in new build and major refurbishment of non domestic
- Ducting only for all residential parking spaces
- This is in line with other commitments in Clean Growth Strategy and in R&D plans
- How will this be delivered? Is it one for Building Regulations?
- Answers on a postcard, please....



### **Unknown unknowns**





There are things we don't know we don't know

# And my destination this evening

This is a time of unprecedented change for building related legislation.

Whilst "Brexit" and "Hackitt" attract attention and headlines, the progressive tightening of the Climate Change Act and the targets set out in the five yearly carbon budgets will constrain any changes to legislation relating to energy use in buildings.



# Thank you for listening

Any Questions?

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