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**CLG**

# Part L & F 2010 Government Overview

All proposals subject to ministerial approval.

**Paul DeCort – 20 May 2009**

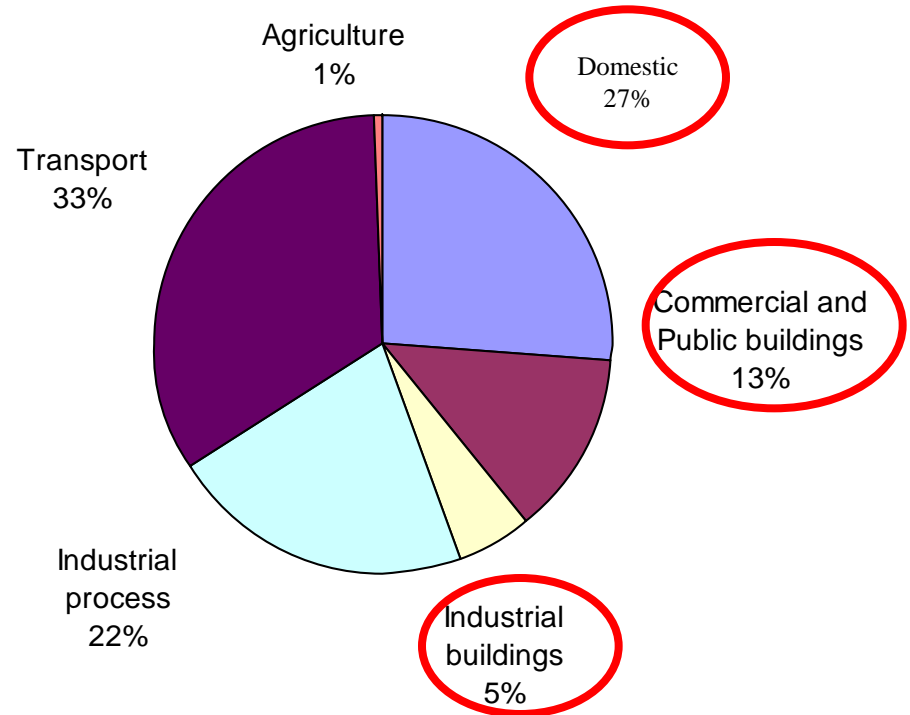
# Today's presentation

- Part L & F 2010
  - Policy drivers
  - Scope of Review
  - Proposed new standards
  - Improving Compliance and Performance
  - Correlation between Part L & F
  - Timetable
- Proposals subject to final ministerial agreements

# Policy Drivers

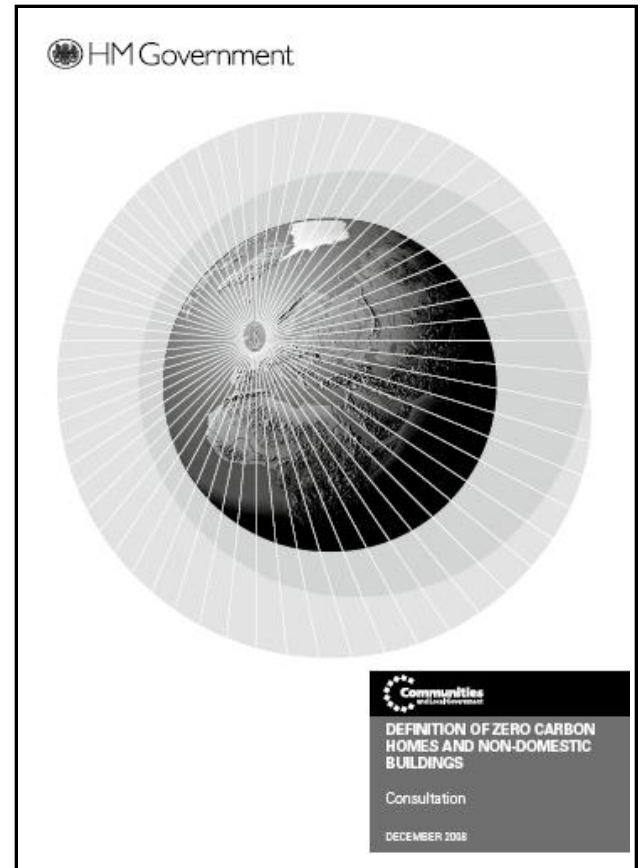
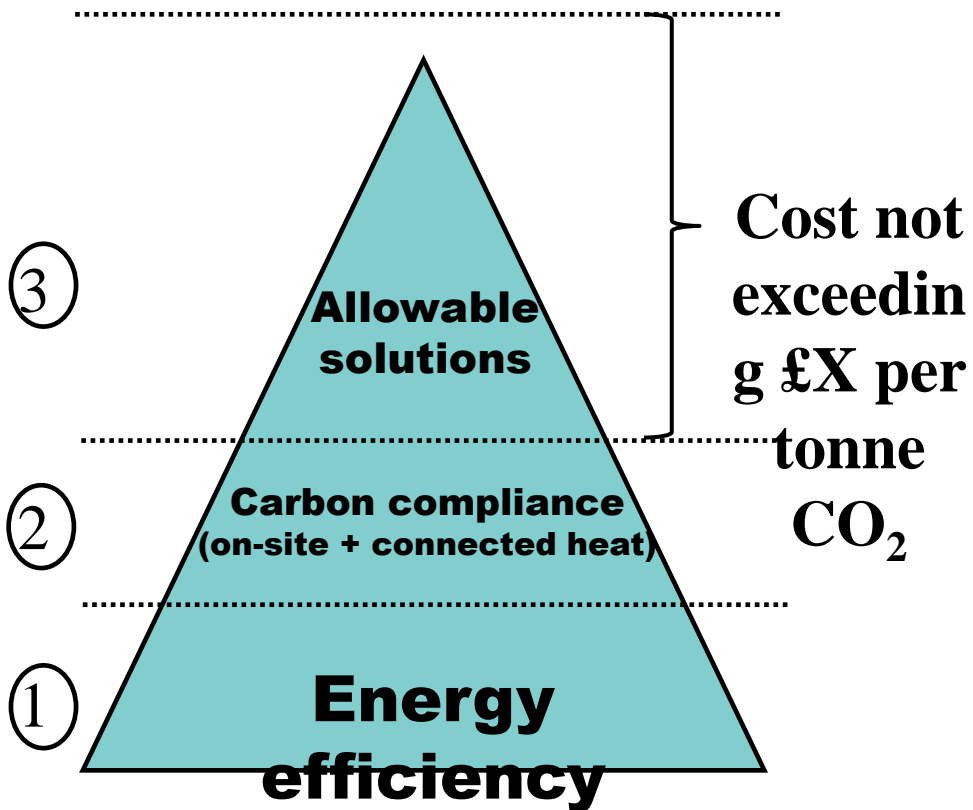
- Buildings account for 45% of UK carbon emissions
- Energy White Paper 2007 sets out energy strategy
- Raising energy efficiency standards via Building Regulations is key
- Ensure health standards not compromised

**In 2005, the UK emitted 550m tonnes of CO<sub>2</sub><sup>(1)</sup>**



- Climate Change Act: legal obligation on Government to reduce emissions by 80% by 2050
- Building a Greener Future Policy Statement 2007: new homes to be Net Zero Carbon from 2016
- Heat and Energy Saving Strategy
- EC initiatives: Energy Using Products Directive, proposals to strengthen EPBD
- Response to Future of Building Control consultation
- Consultation on Zero Carbon Definition / new non-domestic buildings

# Zero Carbon Definition



- Performance targets for new build
- Limits on design flexibility
- Strategy for work in existing buildings
- Development of calculation tools
- Measures for further improving compliance
- Correlation with Part F (ventilation)

## Part L 2010 Review Working Groups

What can we practically and cost-effectively do to achieve energy performance targets (new and existing build)?

WG1: Envelopes

WG2: Dom Building Services (inc LZCs)

WG3 Non-Dom Building Services (inc LZCs)

WG6: Compliance  
& feedback

WG4: Domestic NCM

WG5: Non-Domestic NCM

Is compliance actually achieved and how can it be improved? Are energy targets achieved?

How do we calculate whether building complies with targets?



## Part L 2010 Review New Build Standards

### Timetable for new homes:

- |                           |                    |
|---------------------------|--------------------|
| • 25% improvement in 2010 | CSH energy level 3 |
| • 44% improvement in 2013 | CSH energy level 4 |
| • Zero carbon from 2016   | CSH energy level 6 |

### Non-Domestic:

- Budget 2008: ambition for all new non domestic buildings to be zero carbon from 2019
- Ambition for new schools and public buildings is 2016 and 2018 respectively
- Important to take progressive steps towards this to decrease carbon and to stimulate innovation and new technologies
- ***Current thinking*** is to adopt similar phased reductions for non-domestic buildings i.e. 25% in 2010

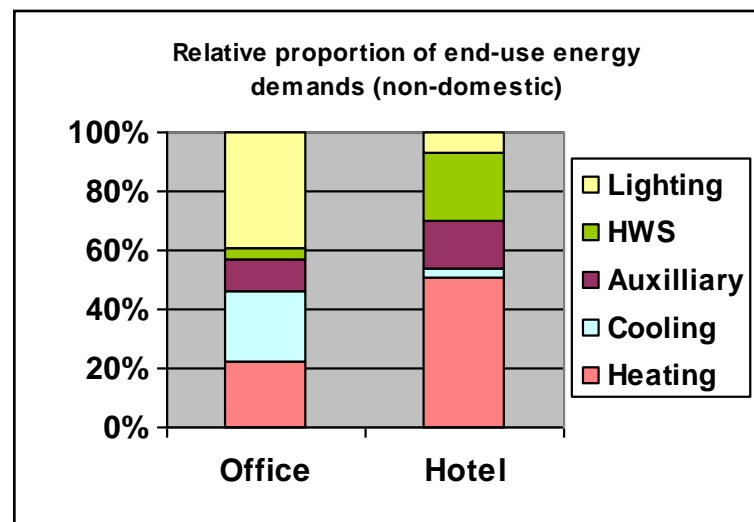
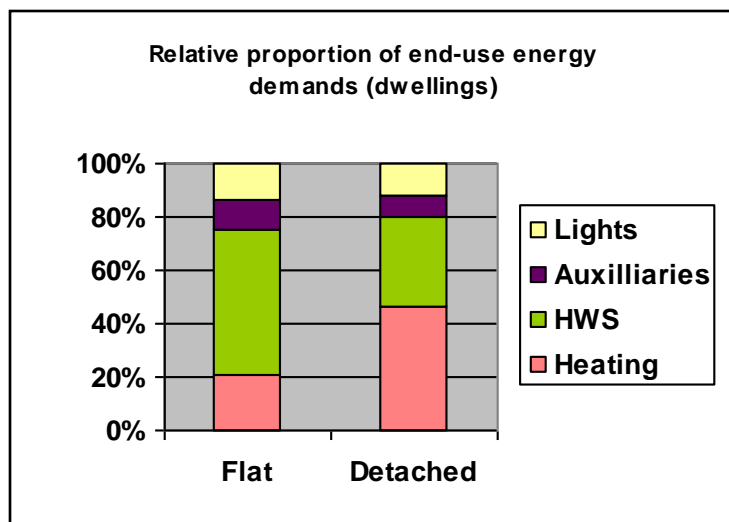
## Part L 2010 Review: Compliance steps

- Same Regulatory Framework (BER $\leq$ TER)
- Limits on design flexibility
- Limiting the effects of solar gains in summer
- Quality of construction & commissioning
- Providing information / O&M instructions

**No change proposed**

## Part L 2010 Review: New Build Targets

- Key issue is the mechanism for target setting
- Option to retain a 2002 notional building plus further improvement factor i.e. a flat 25% improvement for each building
- Has familiarity but takes no account of difficulties or opportunities for improving performance in different types of building



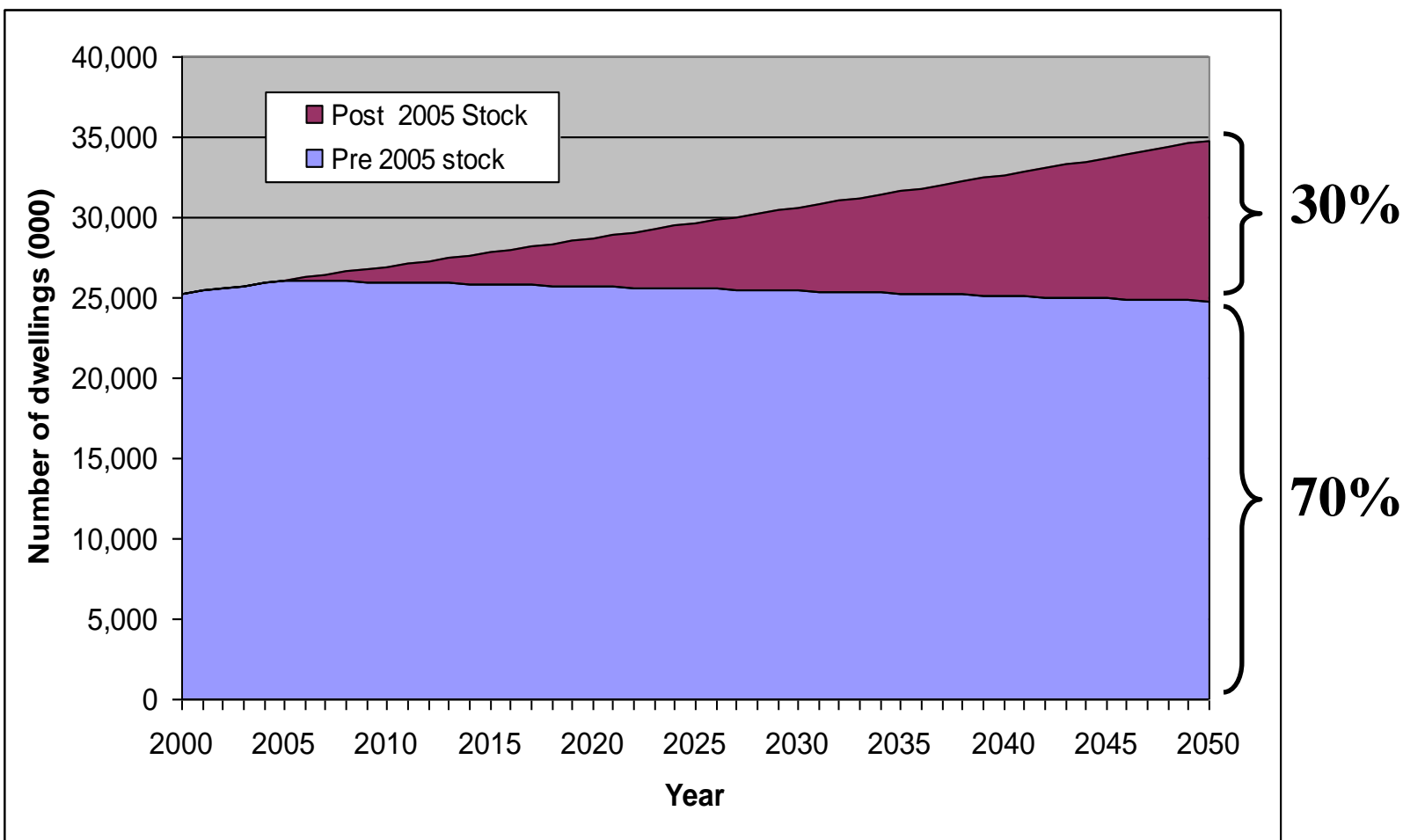
## Part L 2010 Review: New Build Targets

- So have developed alternative option to provide 25% on aggregate overall rather than per building
- 2010 notional (TER) with no improvement factor based on relative cost effectiveness of making energy efficiency improvements for typical building components
- Some buildings deliver more than 25%, some less, but optimised to deliver national target of 25% when applied across build mix
- Separate aggregates for domestic and non domestic buildings
- Maximises CO<sub>2</sub> reduction per unit investment, more pronounced for non domestic, seek feedback on the options in consultation

## Part L 2010 Review: Calculation Tools

- BRE developing SAP and SBEM drafts to support Part L consultation package
- Impact of Part G (water efficiency) and associated reduction of hot water energy demand for new homes
- Propose SAP software core plus interface for consultation and considering options for implementation
- SAP moving to monthly rather than annual calculation with factors to address thermal mass
- SBEM focus is on convergence of results with Dynamic Simulation Models (DSMs)
- SBEM building typology linked to planning classes with simplified activity types below this

# Importance of Existing Stock



Source: Housing Statistics – ODPM 2004

## Part L 2010 Review: Existing Buildings

- Review consequentials for buildings  $<1000\text{m}^2$  - links to EPBD2 and EPC list of measures
- Extensions: use elemental approach or SAP/SBEM for greater flexibility but issues of trade-off and consequentials
- Seeking views on potential removal of exemption of conservatories  $<30\text{m}^2$  from Part L
- General raising of standards and seek to capture more work e.g. swimming pool basins within buildings
- To revise the definition of renovation and provide more focussed guidance on thermal elements

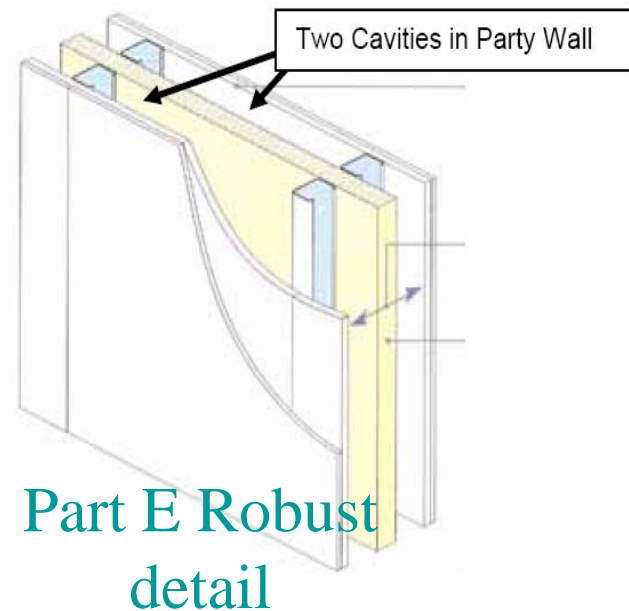
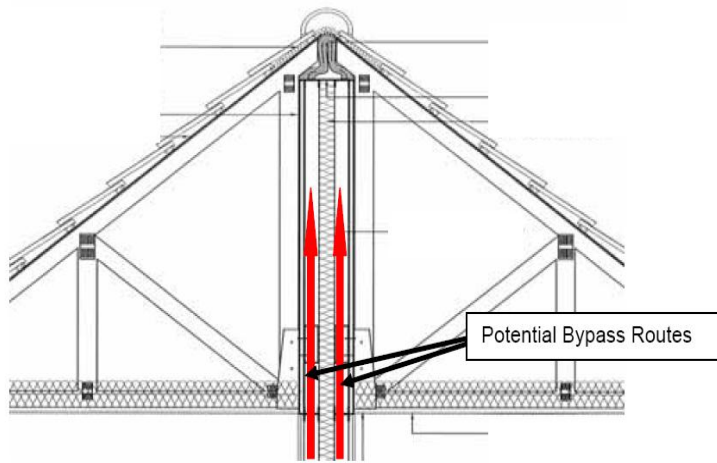
## Part L 2010 Review: Improving Compliance

- Improving connection between NCM calculation inputs and information on construction
- Option of adopting Accredited Construction Details (ACDs) with enhanced quality control to claim higher performance
- Wider use of Competent Persons Schemes
- More focussed guidance for renovation work
- Substantial training and dissemination campaign



## Part L 2010 Review: Theory – v – Practice

- Plan to adjust performance where appropriate
- Apply revised efficiency values (e.g. potential down rating of SEDBUK values in SAP based on field trial evidence)
- Apply default value unless effective solution can be verified for Party Wall and other thermal bypasses



## Part L 2010 Review: Building Services Compliance Guides

- New Domestic and Non-Domestic Building Services Compliance Guides
- Guides provide limits of design flexibility for new build and standards of energy efficiency for replacements
- Include improved standards for the services included in the previous guides and updating in line with BS ENs
- New sections to cover energy standards for ventilation, lighting, air conditioning, pumps and LZCs.
- Will, as far as possible, be generic so that they can be adapted for use in all regions of the UK.


- Part L is main bulk of the review but need to ensure Part F ventilation standards are not undermined
- Key task for the revision of ADF is how dwellings should be ventilated in the future
- ADF (2006) guidance has been designed to work at assumed permeability of  $3 \text{ m}^3/\text{h}/\text{m}^2$  at 50 Pa
- Part L changes encourage airtightness so more homes will tend towards  $3 \text{ m}^3/\text{h}/\text{m}^2$  : adequate purpose provided ventilation is needed to maintain healthy IAQ
- NV (with local intermittent fans) is main form of domestic ventilation but is likely to become more challenging with a trend to continuous MV systems

## Part F 2010 Review

- Propose guidance for more airtight homes with different provisions for homes with high and low permeability
- Propose guidance for installation and commissioning of fixed ventilation systems with provision of advice on operation and maintenance
- Clarify requirements for ventilation when windows are replaced in existing homes
- Continue with research into ventilation and IAQ in airtight homes, mould growth, trickle vents, experience of other countries

- Consultation, draft technical guidance and calculation tools to focus on 2010 with best understanding for 2013
- Impractical to develop detail for 2013 right now given ongoing zero carbon discussions and Europe
- Part L 2010 will major on energy efficiency improvements and on-site LZC systems in a performance based way that does not stifle innovation or future allowable solutions
- Start reporting energy demand and unregulated energy uses etc.
- Aim to consult soon and introduce changes in April 2010
- Recognise this is challenging and will keep under review with potential rescheduling to Oct 2010 – plan to ask for views on timing in consultation

# Timeline – Building Regulations and Code for Sustainable Homes



Year	2008	2009	2010	2011	2012	2013	2014	2015	2016
Review	Parts L&F & J, A&C Code*			Parts L&F Code*			Parts L&F Code*		
Consult	Part G <i>Zero carbon definition</i>	Parts A&C J L&F Code*			Parts L&F Code*			Parts L&F Code*	
Change		Part G	Parts A&C L&F, J Code*			Parts L&F, Code*			Parts L&F Code*

*In 2010 will confirm what will be reviewed for 2013; give indication of 2016 changes*

\*Code for Sustainable Homes

## More Information

[www.communities.gov.uk](http://www.communities.gov.uk)

- Policy, consultations and legislation

[www.planningportal.gov.uk](http://www.planningportal.gov.uk)

- Approved Documents and other guidance



# Thank you for listening

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