

Energy performance certificates On construction, sale or rent

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- § EPBD came into effect 04 Jan 03. Requires implementation by 04 Jan 06
- § Comprises
 - § technical measures for setting performance standards – Articles 3 to 6
 - § Procedural measures making performance info available – Articles 7 to 10
- § Articles 3 to 6 already implemented in the Part L amendment.
- § Articles 7 to 10 to be implemented – Article 15 gives us up to 04 Jan 2009.
- § Article 7 – energy performance certification of buildings
 - § First implementation wef 01 June 07 – HIPs and new dwellings
 - § Roll out the rest over the CCDs: 1/10/07, 6/4/08, 1/10/08

- § Govt statements to date – the national and international political context.
 - § 13 Sep 05
 - § 14 Jun 06
 - § One expected shortly
- § Note Government's position most recently published 13 Dec 06
 - § New Climate Change programme
 - § Consultation on achieving zero net annual carbon emissions for new dwellings by 2016
 - § Consultation on Climate Change PPS

- § 7(1): EPCs when buildings are constructed sold or rented out
 - § The Asset Rating based on calculation of energy performance
 - § Reflects intrinsic energy performance potential
 - § the quality of the asset
- § 7(2): Reference values & recommendations for cost effective improvement
- § 7(3): EPCs for public display
 - § The Operational Rating based on measured energy consumption
 - § Reflects the operating performance
 - § The quality of the asset and the efficiency with which it is operated

- § Stakeholder engagement
 - § Expose current thinking
 - § Receive feedback and constructive criticism
 - § Identify typical scenarios to test approach and supporting guidance
 - § Develop “case book” on how to apply the requirements
- § Technical/procedural audit (January)
- § Ideas to be presented are NOT official policy
 - § To be finalised based on stakeholder feedback and audit
 - § Your opportunity to influence the outcome

- § EPCs on new construction – identification of issues
 - § Flows from procedures developed for EPBD Articles 3-6 implemented in E&W via Part L.
 - § Considers implications for existing buildings
 - § Attempts to develop recommendations for implementing Article 7(1) in a consistent and meaningful way across all sectors
- § Assumed that delegates have read & inwardly digested the detail
 - § Highlight key points
 - § Allow maximum opportunity for feedback
 - § Contributions to workshop
 - § Written contributions by 15/12/06

- § Dwellings
 - § Separate certificate for each individual dwelling
 - § Might be based on common calculation
- § Non-domestic
 - § Separate certificate for each functional part
 - § An office that is split into tenancies would be rated on the whole office, not separate EPCs for each potential tenancy
 - § “Function” defined by planning use classes
 - § Exception:
 - § Where part is designed for separate use (independent access and services)

- § Part L exemptions NOT carried through to EPCs
 - § Historic buildings
 - § ? Temporary buildings with a planned use < 2 years ?



- § EPC calculations should not require any data over and above that needed for Part L compliance
 - § Minimises marginal cost of production
- § Procedure for calculating rating and banding grade automated
 - § Use of accredited software tools (SAP, SBEM, DSMs)
 - § Minimises cost to property industry
 - § Maximises consistency of appearance and rating
- § Calculations to be done “in an independent manner by qualified and/or accredited experts”
 - § Separate workstream on qualifications and accreditation schemes

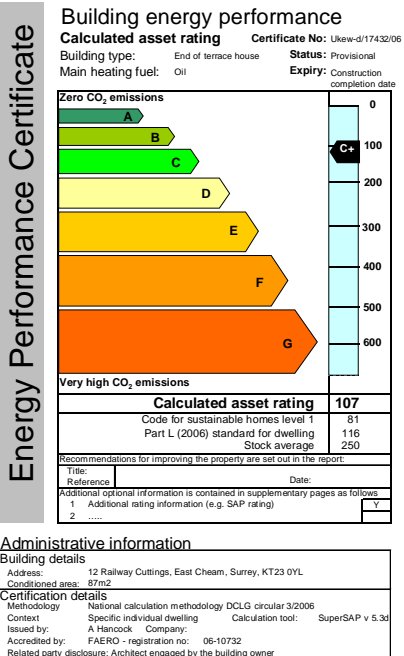
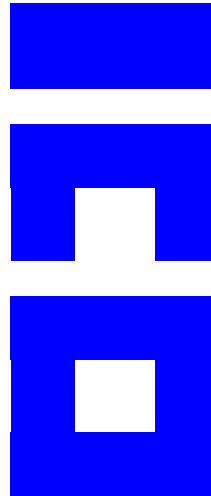
- § Key principle is to inform potential purchaser/tenant
- § Problem on construction
 - § Dwellings sold off-plan
 - § Non-domestic offered for pre-let
 - § Can't rate what doesn't exist
 - § Legal requirement: to produce EPC once building is completed (and final Part L compliance calculation is done)
 - § Strong guidance: design based rating be determined and made available
 - § Conservative default value
 - § Specific calculation

- § Buildings completed after coming into force date but built to 2002 Part L
 - § No exemption from requirement to produce an EPC
 - § No relaxation of requirement

- § Energy flows associated with fixed building services
 - § Consistent with Part L
 - § Except in dwellings
 - § Actual proportion of low energy lights
 - § Energy demand for fixed air conditioning?
- § Energy flows converted to CO2 using factors published in ADL2A / SAP.
 - § These to be reviewed as separate exercise
- § Rating normalised by reference to a reference building
 - § i.e. compares energy efficiency, not other aspects of the design
- § Ideally, basis of rating should be same in E&W, Scotland & N Ireland (& RoI?)

The reference building

- § Similar concept to Part L notional building
 - § See later discussion
- § Reduces impact of errors in survey and/or data input
- § **May** allow simplification of inputs
 - § e.g. geometry simplifications using generic shapes + TFA + number of storeys.
 - § Trials underway

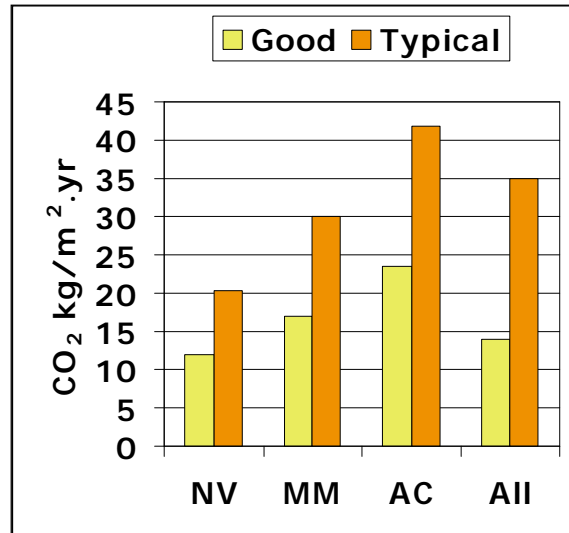


The design of the certificate

- § Single headline page to common format
- § Basic information on the property
- § Linear rating scale
 - § understand relative performance
 - § Top of scale = 0 emissions
 - § B/C boundary Part L(2006) gas heated
- § Variable band widths
 - § Improving the label by a band represents a similar level of difficulty irrespective of starting point
 - § Sub-bands to discriminate CSH standards?
- § Reference values – Part L & CSH standards
 - § Scale NOT revised as standards change, but additional reference points added
- § Recommendations for improvement
- § Administrative information

The reference building for normalisation

- § All (e.g.) offices on same scale
 - § Compare impact of servicing
 - § NatVent
 - § Mixed mode
 - § Full Air conditioning
 - § If not cooled, adjust energy demand for overheating above normal threshold (28C)
 - § Consistent ventilation rate (new Part F minimum)



Cost effective improvements

- § New construction
 - § Advice on effective management
 - § Opportunities for additional features (not replacements)
 - § Controls, metering, LZC,
 - § Opportunities available during subsequent alteration works
 - § e.g. at new fit out, fit more efficient lighting
- § Existing buildings
 - § Generic list of measures
 - § Tailored by surveyor/software?

- § Can the process be made
 - § Simpler/cheaper?
 - § More meaningful?
- § What real world issues have we overlooked?
 - § We need to develop the “case book”