Existing Non-Domestic

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Existing Non-Domestic
- *Consequential Improvements*

Introduced in ADL2B 2006 following implementation of EPBD

Applied to ***all*** buildings >1000m^2 where works increase the carbon footprint, e.g.:

- an extension;
- the initial provision of any fixed building service; or
- an increase to the installed capacity of any fixed building service

Subject to being technically, functionally or economically feasible

For an extension – measures amounting to 10% of the value of the principal works, with not more than 15 years payback

For an initial provision or an increase in its capacity – *fabric* improvements to the *areas served* by the fixed building service **plus** further improvements (to 10%)

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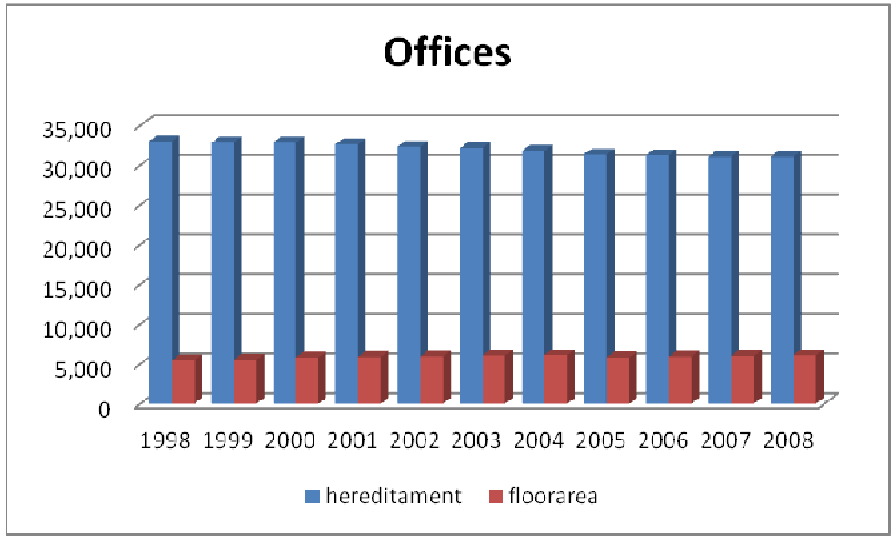
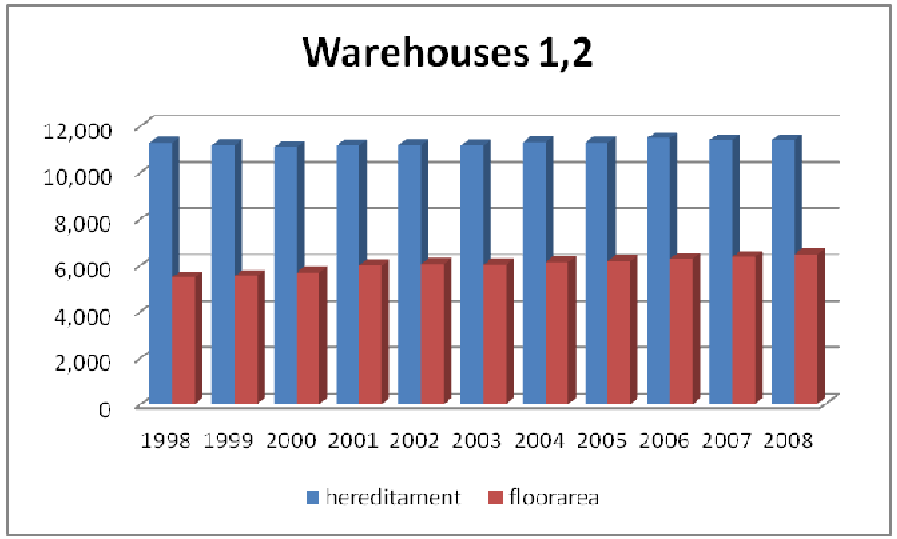
- *Consequential Improvements*

Little change to the requirement in ADL2B 2010

Although most focus tends to be on new build, one great opportunity for reducing national CO2 emissions from the built environment, is to improve the existing stock.

Wales maintains approx 50million square metres of non-domestic stock with a build rate of ~1.2% per annum





Existing Non-Domestic
- *Consequential Improvements*

Plus the links to Green Deal policy, designed with a finance mechanism to promote reduced emissions and increase retrofit activity in existing buildings.

Options to extend Consequential Improvements for Part L2B 2013 for Wales ??

Existing Non-Domestic
- *Consequential Improvements*

i) Increased Carbon footprint

Reduce or remove the floor area threshold?

Buildings less than 1000m^2 are typically occupied by SME's

Such business owners are less likely to have access to the advice of experts

There could be a number of approaches available to identify suitable measures:

- Select from a prescribed universal list
- Recommendations from a report linked to an EPC
- Recommendations by an accredited Green Deal Assessor

Existing Non-Domestic
- *Consequential Improvements*

Proposal: a possibility, subject to analysis of cost and benefit

Options with reduced or no threshold

Note as well, many of these buildings are likely to be domestic style, e.g. converted Victorian buildings now used for professional businesses

Upto 80% of buildings less than 1000m^2 are below 250m^2.

So could it be sensible that we reference the guidance for existing dwellings as being more appropriate?

Existing Non-Domestic
- *Consequential Improvements*

ii) Replacement of a fixed building service or fitting

Volume of work dramatically exceeds other types of building work

So, with additional improvements being levered the impact on reducing national emissions could be huge!

But,

Replacement already likely to be an improvement on the carbon footprint

Forcing Green Deal on consumers? (Should be attractive in its own right)

Existing Non-Domestic
- *Consequential Improvements*

iii) Material change of use:

- conversion from one class of building to another

Current guidance already sets fairly demanding standards

- reasonable provision is to upgrade thermal elements, doors, windows, etc., if the existing is less than a defined threshold
- new thermal elements, controlled services & fittings also to meet defined minimum standards

i.e. potential for reasonable, additional consequential improvements is limited

Proposal: not to use as a trigger

Existing Non-Domestic
- *Consequential Improvements*

iv) Change of energy status:

- e.g. where a previously unheated building (or part of a building) is to become heated

Considered to be as relevant as the capturing an increase in energy use from a building extension creating a similar occupied space if the area threshold were removed.

Proposal: important trigger to capture buildings less than 1000m^2.

Existing Non-Domestic
- *Consequential Improvements*

v) Renovation of a thermal element

ADL2B recommends energy efficiency improvement where a new layer is added or an existing layer replaced

Cost of compliance should be relatively small in such situations

Such renovations are key to improving the 'hard-to-treat' properties

But anecdotal evidence is that the level of compliance is poorer than in any other aspect of Part L and imposing additional requirements will increase the occurrences of non-compliance or avoidance of renovation

Proposal: not to use as a trigger for Consequential Improvements

Existing Non-Domestic
- *Existing Energy Efficiency Standards*

Improved Energy Efficiency

Are the standards presently required by Part L appropriate?

Can we improve the levels of compliance?

Are there other mechanisms by which Building Regs can bring more work in?

These factors are linked though:

Set the standards too high and the level of work and/or compliance diminishes, so a perceived improvement may actually deliver a reduced actual national result

Existing Non-Domestic
- *Existing Energy Efficiency Standards*

i) Replacement of Controlled Fittings and Services

As noted earlier, replacements are generally more efficient

Reasonable to expect similar standards for existing as new.

ii) Construction of an Extension

ADL2B already describes reasonable provisions for energy efficiency of thermal elements, fittings and fixed building services

Imposes few constraints on design/spec and therefore essentially as L1B

(but be expressed as elemental rather than whole building targets?)

Add link to Consequential Improvements? Ideal opportunity for renewables

Existing Non-Domestic
- *Existing Energy Efficiency Standards*

iii) Renovation of a Thermal Element

ADL1B recommends improvement where:

- Area to be renovated is >50% of the individual element being renovated, or
- >25% of the total building envelope

Leaving the standards unchanged has benefits:

- Considered by many to be a good standard, without being too high
- A level of stability for achieving compliance (against a small-scale difficult to reach market sector)

On the reverse, it can be argued that when the opportunity arises, it should be maximised

WG wishes to explore the option for improving the standards for renovation work

Existing Non-Domestic
- *Existing Energy Efficiency Standards*

iv) Retained Thermal Element

Part L applies where the element is subject to a material change of use

And its U-value is worse than the prescribed threshold level

Arguments are as those for Renovation of a Thermal Element and include recommendations for improved targeted guidance – standard solutions

WG wishes to explore the option for improving the standards for retained thermal elements

Existing Non-Domestic
- *Existing Energy Efficiency Standards*

v) Material Change of Use or Energy Status

The standards specified for other types of building works apply, i.e. Thermal elements have to be renovated, windows replaced if standards are poor, new controlled services must meet Part L, etc.

Existing Non-Domestic
- *Introducing New Requirements*

Traditional approach – start relatively gently.

But any delay in ratcheting up the improvement to the existing building stock makes the attainment of the national climate change goals that much harder to achieve.

A ‘big bang’ or a phased approach could be adopted, depending on the scale of the changes to be implemented by WG. If phased it would be helpful to industry if the likely programme and outcomes were signalled from the start.

However, DECC also has Green Deal coming into force in October 2012, potentially adding to pressures to introduce new consequential improvement requirements sooner rather than later.

Existing Non-Domestic
- *Introducing New Requirements*

Key factors to defining the timing, scale and phasing include:

- The volume of work represented by each potential trigger
- The carbon savings of the consequential improvements in relation to that achieved by the primary works.
- The robustness of the process by which the measures constituting the consequential improvement are selected for adoption.
- The building owners' acceptability of the consequential work.
- The availability of sufficient accredited assessors and installers to service the demand across the country.
- Overall cost effectiveness