

## Section 12: Response Form for Consultees' use

*Response form*

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|----------------|
| <i>BR Ref:</i> |
|----------------|

Response form for the consultation on:

**Proposals for amending Part L of the Building Regulations and Implementing the Energy Performance of Buildings Directive**

|  |   |
|--|---|
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|--|---|

*Please use a ✓ or X in answering the following questions*

|  |                          |  |                          |
|--|--------------------------|--|--------------------------|
| <b>Organisation type</b> (tick ✓ or X one box only)  |                          |  |                          |
| Approved Inspector                                   | <input type="checkbox"/> | Manufacturer                                     | <input type="checkbox"/> |
| Architects   | <input type="checkbox"/> | Other non-governmental organisation              | <input type="checkbox"/> |
| Civil/Structural Engineer                            | <input type="checkbox"/> | Private individual (unaffiliated)                | <input type="checkbox"/> |
| Commercial Developers                                | <input type="checkbox"/> | Professional body or institution                 | <input type="checkbox"/> |
| Consultancy  | <input type="checkbox"/> | Property funder                                  | <input type="checkbox"/> |
| Fire Authority                                       | <input type="checkbox"/> | Property Management (Facility Manager)           | <input type="checkbox"/> |
| House or property developer                          | <input type="checkbox"/> | Property Manager (Energy Manager)                | <input type="checkbox"/> |
| Housing association<br>(Registered Social Landlords) | <input type="checkbox"/> | Research/academic organisation                   | <input type="checkbox"/> |
| Individual in practice, trade or Profession          | <input type="checkbox"/> | Specific interest or lobby group                 | <input type="checkbox"/> |
| Journal/media  | <input type="checkbox"/> | Telecommunications company /<br>service provider | <input type="checkbox"/> |

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|  |                          |  |                                     |
|--|--------------------------|--|-------------------------------------|
| Local authority - Building Control       | <input type="checkbox"/> | Trade body or association                              | <input type="checkbox"/>            |
| Local authority - Environmental Health   | <input type="checkbox"/> | Other  | <input checked="" type="checkbox"/> |
| Local authority - other (please specify) | <input type="checkbox"/> | <u>Network of environmental building professionals</u> |                                     |

|                                      |                               |                              |
|--------------------------------------|-------------------------------|------------------------------|
| <b>Is your response confidential</b> | Yes: <input type="checkbox"/> | No: <input type="checkbox"/> |
|--------------------------------------|-------------------------------|------------------------------|

*Please note that provision is made throughout this questionnaire for you to provide additional comments. If however you wish to provide detailed comments on any aspect of the consultation then please append additional sheets to this document as necessary.*

The aim of this form is to help consultees in marshalling their thoughts and to facilitate collation and analysis of the hundreds of responses that are expected. It is rather long, but that is a reflection on the scale of this consultation exercise and the numbers of issues that need to be addressed. To help matters it is divided into sections to match the proposals in the consultation document, and it contains open questions to enable consultees to respond in strategic terms or in depth, as they choose.

No attempt has been made to develop an exhaustive list of questions, and there is no intention to discourage consultees from expressing views "outside the box". In answer to each question consultees can choose to tick boxes and/or to provide suggestions and observations in more detail. It is not essential to form a view against every question -respond only where you wish. The last question is completely open to enable consultees to make suggestions or observations that do not fit into the preceding format.

Consultees can copy these pages if they wish to respond in manuscript. For those who prefer to use a word processor and the Internet an editable version can be downloaded from the "Part L Consultation Package" page at [www.odpm.gov.uk](http://www.odpm.gov.uk).

At the same web site there is a paper on the issues that officials and contractors have identified as needing resolution before the Government can decide on the amendment legislation next year. The aim in publishing the list is to inform consultees about the Government's advisors' thinking, and to provide a seed bed of ideas for those who would like help in focussing their own thoughts. Paper copies of this paper will be made available on request to those who do not have internet access.

**Overall Strategy**

|   |   |
|---|---|
| 1 | <p><i>It is proposed to implement the Energy Performance of Buildings Directive and to revise Part L of the Building Regulations at the same time:</i></p> <ul style="list-style-type: none"> <li>■ <i>The technical provisions in Articles 3 to 6 of the Directive incorporated into the Building Regulations.</i></li> <li>■ <i>Article 7 (building certification), Article 8 (Boiler inspections or information) in other legislation.</i></li> <li>■ <i>Article 9 (air conditioning system inspection) might be incorporated into Building Regulations or it could be implemented separately along with Article 7.</i></li> </ul> <p><i>Are you content with this approach?</i></p> <p>Yes: <input checked="" type="checkbox"/>                      No: <input type="checkbox"/>                      No view <input type="checkbox"/></p> <p><b>Commentary:</b></p> |
|---|---|

2 *The Energy White Paper and Energy Performance of Buildings Directive (EPBD) effectively call for Part L to be reviewed at 5-yearly intervals. Do you consider this is a reasonable and effective way to meet our climate change policy objectives?*

Yes:

No:

No view

**Commentary:** However this is only part of the solution to meeting the UK's climate change policy objectives. The UK needs a coherent carbon efficiency programme that combines increased step change regulation (not met by the latest proposals) with encouragement for higher building standards. This encouragement can be met in a variety of ways, e.g. grants, public sector research, training in sustainable building techniques etc.

It is also important to evaluate actual performance of buildings as opposed to calculated theoretical performance.

3 *The Draft Approved Documents for Part L comprise 4 separate documents, reflecting splits between new and existing buildings on the one hand and domestic and non-domestic buildings on the other. Do you like this separation?*

Yes:

No:

No view

**Commentary:** However we would like to see consideration given the fact that certain domestic buildings e.g. blocks of high rise flats have to use the non domestic approach.

4 *The Draft ADs adopt a more strategic approach to the guidance than previously, relying on other approved references for much of the technical detail. Do you like this approach?*

Yes:  and

No:

No view

**Commentary:** We feel that Part L would be too unwieldy if all necessary technical detail were included and for that reason welcome the more strategic approach. It also allows for improvements to the regulations to be continuous as the approved references can be updated more quickly and easily. However we are concerned that if too much technical detail to meet the regulations is only available in highly priced documents then it will not be affordable to many small businesses. We feel that all technical guides should be freely downloadable from Government websites as happens now with the Building regulations

5 *The Draft ADs include a commentary column that could be used to give background to the guidance. Do you like this?*

Yes:

No:

No view

**Commentary:** It allows a greater understanding as to why certain changes are being proposed.

### Section 1 - Regulatory Impact Assessment (RIA)

6 *Do you consider the proposal for a reduction in carbon emissions of around 25% for new dwellings and around 27% for other buildings are an appropriate and practical target for improvement for 2005?*

Yes:

No:

No view

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**Commentary:** These reductions are an easily achievable practical target. The AECB is concerned that this 25% theoretical reduction will not occur in actuality due to poor construction detail, (both design and site practice). It is imperative that verification by actual post completion testing is implemented as soon as possible, and certainly before the 2010 amendments.

7 *Are the cost and benefit data and methods of analysis given in the RIA reasonable? Please use the comment box to suggest how the estimates and methods of analysis could be improved.*

Agree: only partly agree  Disagree:  No view

**Commentary:** We are concerned that the cost-effectiveness calculations assume unrealistically low internal temperatures. Mean heating season air temperatures inside UK buildings have been rising since the 1970's and is likely to continue to rise until it matches the Scandinavian whole dwelling temperatures of 21-22C, not the UK's more modest 18-19C. Today's calculations must allow for this or we shall continue to build under-insulated houses. If we use these higher air temperatures in calculations, the optimum insulation level of most new buildings is 20% greater. This is a serious flaw in the RIA.

The RIA used relatively high prices in £/m<sup>3</sup> for some insulants. We suspect that prices will decline if the industry invests further in new capacity, now that it is convinced that standards and demand for its product will rise steadily. Prices are lower on the continent for most insulants except for the lowest-density mineral fibres used in roofs and some walls. Falls in the prices of some insulants will affect the optimum level of insulation; it could rise by 15-25%.

The RIA fuel prices for mains gas and oil of 1.4 and 1.6 p/kWh respectively are too low. This has been overtaken by events as oil now costs over 2 p/kWh; gas mostly over 1.5 p/kWh. This also raises optimal insulation levels.

The above three factors could well change optimum insulation levels by a factor of 1.3.

The interest rates used are still a bit high. The Treasury *Green Book* recommends less than 3.5%/yr. for suitably long-lived infrastructure. The recommended rate drops to under 2%/yr. for assets lasting 100+ years. We think building floors and external masonry walls, if nothing else, are examples of this. The notional lifetime of a new house may be 60 years but very few are totally demolished at this age, although elements like roofs and windows may be replaced or rebuilt.

8 *Are there categories of risk that have not been identified in the RIA? If so, please use the comment box to identify them. Thoughts on how the costs of any other risks could be quantified would also be helpful.*

Yes:  No: x No view

**Commentary:**

9 *Do you consider any particular sector of the market or industry is likely to be disproportionately affected by the proposed changes? If so, please explain how.*

Yes:  No: x No view

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**Commentary:** It could be argued that speculative developers of detached houses will be affected or companies that supply poorly performing goods and services that will not meet the new regulations. However we feel that this is not a significant reason for non implementation of these proposals.

10 *Will the existing building control system be able to enforce the proposed changes? If not, please make suggestions and observations on what could be done to improve enforcement and/or relieve the regulatory burden.*

Yes:

No:

No view

**Commentary:** This is a serious problem for BCOs who have found it increasingly difficult to enforce the 2002 amendments. We feel that support for Building Control is vital. Either there needs to be Government support for Building Control departments or the UK should seriously consider the possibility of moving to the system used in some countries on the continent (e.g. Germany, Austria, and Switzerland) where a licensed architect or engineer certifies to the owner and to the local authority that acceptable construction standards have been met. Possibly a dual approach would be the preferred option at present.

**Section 2 - ADL1A for new dwellings**

11 *Are you content with the proposed new requirement in Regulation 13 regarding the submission of target carbon performance?*

Content:  mostly

Disagree:

No view

**Commentary:** We welcome the fact that all dwellings will be assessed on carbon performance.

However we have concerns about several aspects of the target carbon performance, not least how certain aspects of SAP are calculated. We would like to see thermal bridging subsumed into quoted U-values so that these are precise enough to be used for heat loss calculations, without adding further arbitrary "safety margins". The bre.co.uk/SAP2005 website indicates that there will be a further allowance in 2005 for non-repeating linear thermal bridges; e.g., floor joists in timber-frame housing; details between wall elements; floor-wall junctions in masonry buildings. We will have to add 0.07 W/m<sup>2</sup>K to the U-value calculated by the combined method. Existing buildings will have to add 0.11 W/m<sup>2</sup>K. Designers in Germany must make a bigger allowance of + 0.15 W/m<sup>2</sup>K in new buildings. We would like to see an equally realistic allowance. The unrealism of current procedures is clear from work by Bell et al who in 2001 measured an average fraction of 34% timber and 66% insulation by area in the walls of new speculative terraced and end-terraced houses. These were being built in Yorkshire and came from two different developers/manufacturers. Using the proportional area method the U-value of this wall is 0.57-0.62 W/m<sup>2</sup>K depending; e.g., on factors such as timber conductivity. ***A proportional area calculation underestimates the impact of thermal bridging so the actual figure will be worse than this.*** In this case, the discrepancy between claim and reality seems to be at least 0.15-0.20 W/m<sup>2</sup>K. ***The planned correction seems too low.***

We are also similarly concerned about the way SAP calculates hot water usage as the thermal performance of the building envelope improves. It seems to take no account of the reality that however much the building envelope is improved the actual change in how water use by the occupants will be very little. This is born out by hot water use in the summer months being broadly similar to that in the winter months and to the monitoring of water use in buildings. Section 9 p13 of the proposals shows the hot water use in an 80m<sup>2</sup> semi detached house to fall by over 30% between the 2002 and 2005 amendments. This is statistically nonsense and needs to be corrected.

We are glad that solar thermal will have a greater weighting under SAP

12 *Are you content with the new seven-step approach to determining compliance for new dwellings?*

Content: x mostly                      Disagree:                       No view

**Commentary:** We are glad that the ability for trade off between different building elements has been reduced. Our concerns re thermal bridging as detailed above are equally valid here. We welcome the fact that electric lighting use in the dwelling will be calculated. It should not be permissible to install non condensing boilers into new build dwellings. If gas boilers are installed they must be of the condensing type. We assume that the DCER will be calculated using m3 instead of m2 to take into account the effect of high ceilings. If not we think it should be. We approve of the fact that the possibility excessive solar gain will be calculated. All well designed buildings in the UK should have no need of a/c and this relates to commercial as well as domestic buildings. Single fixed a/c units in dwellings are becoming more popular and the Government needs to address this issue, under ADL1B.

13 *Are you content with the proposals for dealing with terraced dwellings and blocks of flats?*

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Content: x

Disagree:

No view

**Commentary:**

14 *Are you content with the proposals for worst acceptable standards?*

Content: x partly

Disagree:

No view

**Commentary:** They are preferable to the maximum U-value of 0.7 W/m<sup>2</sup>K. However, the government has over-reacted to pressure from speculative builders who maintain that there is no room to construct external walls thicker than 300 mm. Recent analyses of typical new developments show that minor re-design of just the house layout usually enables 350+ mm walls to be accommodated without losing any dwellings. Masonry and brick-clad timber-frame walls 350 mm thick can achieve a real U-value of 0.25, which is ahead of the 2005 Regulations. We cannot see the point of allowing significant tradeoffs up to 0.35 as it is so hard to improve wall U-values later.

15 *Are you content with the proposals for achieving satisfactory quality of construction, namely robust details and sample pressure testing?*

Content: x

Disagree:

No view

**Commentary:** The AECB welcomes wholeheartedly the move to sample pressure testing of newly built dwellings. We have been campaigning for this legislation for many years.

We would like the default air permeability for untested buildings to be set at 20m<sup>3</sup>/m<sup>2</sup>hr @ 50 Pa. We feel this higher figure more accurately reflects the situation in many newly built dwellings, given poor quality construction methods, and would encourage testing instead.

The majority of robust details at present have proved to be less robust than hoped, as shown by as-built U values (measured using energy consumption post occupancy) not matching design U-values. We need work which is aimed at modifying construction procedures in order to deliver U-values which more closely match designer's expectations. This will mean spending more public money on buildings research. In 2001 the RCEP recommended that the UK increase its spending to at least the OECD average as a percent of GDP, not continue at the bottom of the league table next to Portugal and Turkey. ***This action is long overdue.***

Diagrams showing minimum acceptable workmanship on different insulants should be published. A named person should be legally responsible for ensuring and certifying that this standard has been met. We suggest that an architect, engineer or surveyor could fulfil this role as happens in Germany, Austria, and Switzerland at present.

16 *Are you content with the model designs approach and the examples given in Appendix B?*

Content:

Disagree: x mostly

No view

**Commentary:** Despite the extra weighting added to poorly performing fuels (in terms of carbon emissions) it is still too easy to install electric space heating into all dwelling types. There needs to be a minimum amount of window space specified (to prevent excessive electrical use of lighting) as well as a maximum (to prevent overheating)

17 *Are you content with the approach set out in the checklist in Appendix A? (Your thoughts on making this checklist more useful would also be welcome.)*

Content:  mostly                      Disagree:                       No view

**Commentary:** Pressure Testing should be random under all situations. (It's unclear whether there is occasionally a situation where the builder nominates which buildings are to be pressure tested). The architect or engineer can sign off buildings to lessen the work of the BCO (as detailed above in 10)

18 *This box is provided to enable you to comment on specific paragraphs in the AD and the questions included in the commentary column. Please give the paragraph No and question No to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No and to copy this layout.)*

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| Paragraph or Question No. | Response   |
|---------------------------|--|
| L1A.4                     | Despite the EPBD encouraging the use of either renewables or decentralised energy supply systems there is very little in the ensuing AD that legislates for, or even encourages, this. This is a failing of the proposed changes   |
| 12 Table 3 Fuel factor    | <p>The rating for electricity of 1.47 against a rating of 1.00 for mains gas and bio fuels does not accurately reflect the poor carbon performance of grid generated electricity.</p> <p>It is unclear why heat pumps have the same rating unless this reflects the power needed to run them and the CoPs of the produced heat is calculated elsewhere. Otherwise installing heat pumps or installing electrical resistance storage heaters in a dwelling would have the same carbon rating and this is statistically incorrect.</p> <p>Solid fuel boilers should be rated on the basis that solid fuel only is to be used unless the occupier (not the developer) can show they will be using wood pellets.</p> |
| 35                        | The minimum requirements for insulation of pipes and ducts should appear in the approved document  |
| 41                        | There needs to be a minimum allowable amount of windows in a dwelling. Electrically heated flats are too often built with small windows so not only do these dwellings perform poorly from a carbon perspective for space and water heating, they also require more electricity for lighting.  |

**Section 3 - Approved Document ADL1B for work in existing dwellings**

19 *Are you content with the proposed new requirement in Regulation 13 regarding the submission of energy performance statements?*

Content:

Disagree:

No view

**Commentary:**

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20 *Are you content with the proposals that widen obligations to carry out general energy efficiency improvements as well as the work in question (requirement LIB.2 and the new work definition of "controlled element")?*

Content:  Disagree:  No view

**Commentary:** It is important that the UK addresses carbon emissions from existing buildings as well as from new build. The AECB would like to see increased use of Government grants as an incentive to upgrade existing buildings.

21 *Do you consider the overall level of improvements proposed for existing buildings to be reasonable? (Please comment on factors affecting your view.)*

Too strict:...  About Right:  or Too lenient:  No view

**Commentary:** The AECB would welcome more stringent requirements on energy efficiency in other work in existing buildings backed up by Government grants as above. Any extensions to existing buildings must meet existing Building Regulations as if for new build

22 *Are you content with the proposals in Section 4 and Appendix A for the assessment of cost-effectiveness of improvement measures and hence the approach to compliance with Regulation LIB.2?*

Content:  mostly Disagree:  No view

**Commentary:** The method of assessing is quite complicated and would mean extra expense for the householder. We would welcome the Government heavily subsidising the cost effectiveness assessment of improvement measures.

23 *This box is provided to enable you to comment on specific paragraphs in the AD and the questions included in the commentary column. Please give the paragraph No and question No to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No and to copy this layout.)*

**Paragraph or Question No.**

32-59

**Response**

It would seem sensible that this information also appeared in ADL1A even if it will automatically calculated by SAP as it shows the standards that the amendments wish to achieve with regard to controlled services.

**Section 4 - Approved Document ADL2A for new buildings other than dwellings**

24 *Are you content with the proposed new requirement L2A.3 covering the avoidance of excessive solar gains?*

Content:  Disagree:  No view

**Commentary:** It is imperative that the cooling load in all buildings is reduced. The AECB welcomes the fact this is stated so clearly

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25 *Are you content with the proposed new requirement L2A.4 concerning the provision of cost-effective low and zero carbon systems?*

Content:  Disagree:  No view

**Commentary:** The term “where technically, economically and environmentally feasible” means that very few buildings will implement LZC systems. The AECB feels that the Government has missed an opportunity to lower carbon emissions from new buildings and also to encourage greater take up of LZC systems leading to technological improvements and reduced costs of these systems.

26 *Are you content with the proposed new requirement L2A.5 concerning the calculation of As-Built energy performance, testing of airtightness and reporting commissioning results?*

Content:  mostly Disagree:  No view

**Commentary:** The AECB would not wish to see any buildings other than dwellings not tested for air permeability given the poor construction techniques on most UK sites. To date few commercial buildings have met their design targets with regard to air permeability. As it is not even mandatory to test it is usually only exemplar buildings that are and yet still the results are extremely poor.

27 *Are you content with the proposal for a new Building Regulation RN on submitting building Certificates as the best way of implementing Article 7 of the EPB Directive (or would you prefer some other legislative route)?*

Content:  Disagree:  No view

**Commentary:**

28 *Are you content with the proposal for a new Building Regulation RN+1 on regular inspections of air conditioning systems as the best way of implementing Article 9 of the EPB Directive (or would you prefer some other legislative route)?*

Content:  Disagree:  No view

**Commentary:**

29 *Are you content with the proposed new requirement in Regulation 13 regarding the submission of target carbon performance?*

Content:  Disagree:  No view

**Commentary:** We are glad carbon performance of a building is addressed under the proposed changes to ADL2A. We hope that the calculation errors highlighted in our comment on SAP are not repeated in the programmes used for calculating performance of buildings other than dwellings. We would like to see continual upgrading of these programmes at more regular intervals than changes to Part L.

30 *Are you content with the seven-step approach together with the data in Appendix B as the way of showing compliance?*

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Content:

Disagree:

No view

**Commentary:** The AECB thinks that the whole building approach is a significant improvement. As with our comments under Part L1 we are concerned that actual wall u values do not meet design U values.

31 *Are you content with the proposals for worst acceptable standards?*

Content:

Disagree:

No view

**Commentary:** The wall and floor worst acceptable standards are too high and could be made more stringent. We wonder why there is no improvement from the robust details of 2002.

32 *Are you content with the proposals for achieving satisfactory quality of construction, namely reports from competent persons, pressure testing except in special cases, and pressure testing of ductwork?*

Content:  mostly

Disagree:

No view

**Commentary:** We would like the default air permeability for untested buildings to be set at  $20\text{m}^3/\text{m}^2\text{hr}$  @ 50 Pa. We feel this higher figure more accurately reflects the situation in many newly built dwellings, given poor quality construction methods, and would encourage testing instead. We would prefer pressure testing of ductwork by an independent assessor.

33 *Are you content with the model designs approach in Section 4?*

Content:

Disagree:

No view

**Commentary:**

34 *Are you content with the definitions in Section 5?*

Content:

Disagree:

No view

**Commentary:**

35 *Are you content with the approach set out in the checklist in Appendix A? (Your thoughts on making this checklist more useful would also be welcome.)*

Content:

Disagree:

No view

**Commentary:** Our only comment is pressure testing of ductwork by an independent assessor as stated above.

36 *Are you content with the examples in Appendix C on the use of the new seven-step approach?*

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Content:

Disagree:

No view

**Commentary:**

37 *This box is provided to enable you to comment on specific paragraphs in the AD and the questions included in the commentary column. Please give the paragraph No and question No to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No and to copy this layout.)*

**Paragraph or Question No.**

**Response**

**Section 5 - Approved Document ADL2B for work in buildings other than dwellings**

38 *Are you content with the proposed new requirement in Regulation 13 regarding the submission of energy performance statements?*

Content:

Disagree:

No view

**Commentary:**

39 *Are you content with the proposals that widen obligations to carry out general energy efficiency improvements as well as the work in question (requirement L2B.2 and the new work definition of "controlled element")?*

Content:

Disagree:

No view

**Commentary:** It is important to address carbon emissions from existing buildings if the UK is to have any chance of achieving its commitment to reduce carbon emissions by 60% by 2050. The AECB feels that commercial buildings under 1000m<sup>2</sup> should also be included under this requirement.

40 *Are you content with the proposal in principle to widen the definition of material change of use to include changes from commercial or industrial class to class? (Your views on what classes should be included and the impacts of such a change would be particularly welcomed.)*

Content:

Disagree:

No view

**Commentary:** This allows a greater number of buildings to fall under the category where energy efficiency of the whole building must be addressed on change of use. Therefore this change is welcomed.

41 *Do you consider the overall level of improvements proposed for existing buildings to be reasonable? Please comment on factors affecting your view.*

Too strict...

About Right:

Too lenient:

No view

**Commentary:** The AECB would welcome more stringent requirements on energy efficiency in other work in existing buildings possibly backed up by other regulatory carrots apart from ECAs. Any extensions to existing buildings must meet existing Building Regulations as if for new build

42 *Are you content with the proposal to treat extensions over 100 m2 floor area as new are reasonable?*

Content:

Disagree:

No view

**Commentary:**

43 *Are you content with the proposals in Section 4 and Appendices A and B for the assessment of cost-effectiveness of improvement measures and hence the approach to compliance with Regulation L2B.2?*

Content:

Disagree:

No view

**Commentary:**

44 *This box is provided to enable you to comment on specific paragraphs in the AD and the questions included in the commentary column. Please give the paragraph No and question No to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No and to copy this layout.)*

**Paragraph or Question No.**

**Response**

**Section 6 - Future Performance Standards for Part L**

45 *The aim of this section is to enable stakeholders in the procurement of new buildings, building work and materials and components can to plan ahead over a reasonable time frame. Are you content that this forecast is satisfactory for the purpose? (Views on improving comprehensiveness and frequency of updating would be welcomed.)*

Content:

Disagree:

No view

**Commentary:**

It is important to have continual updating of Part L. The AECB would like to see significant step changes under the 2010 review, especially with regard to the real effect of thermal bridging taken into account and greater use of solar thermal, heat pump technology and wood pellet boilers to meet hot water requirements with fewer carbon emissions. We would also like to see the high carbon emissions from electrical resistant heating addressed properly.

The changes to the 2005 amendments were very rushed. More time needs to be allowed for the 2010 amendments to properly reflect the UK's commitment to reducing its carbon emissions and to be part of a coherent low carbon strategy across all Government departments. The AECB would like to be involved in the changes at an earlier stage and at a more strategic level.

46 *The Energy White Paper gave the Government's aim in 2003 of raising standards over the coming decade learning lessons from comparable European countries. However the Regulations need to remain proportionate, reasonably flexible for designers and free of unacceptable technical risks. Are the forecasts in this paper sufficiently realistic and challenging?*

Yes:  mostly

No:

No view

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**Commentary:** There are many useful lessons that the UK could learn from comparative European countries, not least the Passiv Haus programme in Germany.

The AECB has many more comments on what the 2010 changes should achieve. We will set this out in a separate document to ODPM after this consultation period is over.

47 *This box is provided to enable you to comment on specific paragraphs in Section 6. Please give the paragraph No to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No and to copy this layout.)*

**Paragraph or Question No.**

**Response**

27

The AECB feels very strongly that carbon efficiency (not merely energy efficiency) is of utmost importance. To this end we strongly welcome that the carbon target for new buildings should be independent of heating fuel.

41

The AECB welcomes the use of heat pump technology **as long as all the dwellings space and water heating needs are met** At present many systems only meet a proportion with back up from electrical resistance heating leading to an overall increase in carbon emissions than if gas or oil had been specified as the heating fuel.

**Section 7 - Proposals for implementation of the Energy Performance of Buildings Directive (EPBD)**

48 *Are you content with the proposals for implementing Article 3 for dwellings? (The proposals for implementing Article 3 for buildings other than dwellings are covered below.)*

Yes:

No:

No view

**Commentary:**

49 *Are you content with the proposals for implementing Articles 4(1) and 4(2)?*

Yes:

No:

No view

**Commentary:** Although not all the proposals are made yet as to how to implement

50 *Are you content with the proposals for implementing Article 4(3)?*

Yes:

No:

No view

**Commentary:** Unclear as to what the proposals are

51 *Are you content with the proposals for implementing Article 5?*

Yes:

No:

No view

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**Commentary:**

52 *Are you content with the proposals for implementing Article 6?*

Yes:

No:

No view

**Commentary:**

53 *Are you content with the proposals for implementing Articles 7(1) and 7(2) together with Article 10?*

Yes:

No:

No view

**Commentary:**

54 *Regarding the provisions in Article 15, do you think there is a case for requesting an extension of time for fully implementing Articles 7(1) and 7(2)?*

Yes:

No:

No view

**Commentary:** Not really. We need to implement the EPBD sooner rather than later to meet our carbon emission targets

55 *Regarding Article 7(3) are you content that the requirement should apply to commerce as well as the public sector? (Your views on this and whether such application should be immediate or phased would be particularly welcome.)*

Yes:

No:

No view

**Commentary:** Especially commercial buildings which on the whole are the biggest producers of CO<sub>2</sub> emissions per m<sup>2</sup>

56 *Regarding the provisions on Article 15, do you think there is a case for requesting an extension of time for fully implementing Article 7(3)?*

Yes:

No:

No view

**Commentary:** Not really. We need to implement the EPBD sooner rather than later to meet our carbon emission targets

57 *Are you content with the proposals for implementing Article 8? (Your views on the content of this and of the papers placed on the ODPM web site giving the current state of development would be particularly welcome.)*

Yes:

No:

No view

**Commentary:** Would prefer option a as this option would have a greater effect in reducing CO<sub>2</sub> emissions

Section 12: Response Form for Consultees' use

58 *Regarding the provisions in Article 15, do you think there is a case for requesting an extension of time for fully implementing Article 8?*

Yes:

No:

No view

**Commentary:** Not really. We need to implement the EPBD sooner rather than later to meet our carbon emission targets

59 *Are you content with the proposals for implementing Article 9 together with Article 10? (Your views on the content of this and of the papers placed on the ODPM web site giving the current state of development would be particularly welcome.)*

Yes:

No:

No view

**Commentary:**

60 *Regarding the provisions in Article 15, do you think there is a case for requesting an extension of time for fully implementing Article 9?*

Yes:

No:

No view

**Commentary:** Not really. We need to implement the EPBD sooner rather than later to meet our carbon emission targets

61 *This box is provided to enable you to comment on specific paragraphs in Section 7. Please give the paragraph No. to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No. and copy this layout)*

Yes:

No:

No view

**Commentary:**

### Section 8 - Calculation Methodologies in support of the EPD

62 *Do you agree with the proposed distinction between an Asset Rating and an Operational Rating and the way it is proposed to use these two ratings in fulfilment of the Directive's requirements?*

Yes:

No:

No view

**Commentary:**

63 *Are you content with the proposals for a developing a simplified method for most applications and a detailed simulation method for specialised ones?*

Yes:

No:

No view

**Commentary:**

64 *Are you content with the proposal to adopt an index rating scale rather than an absolute scale?*

Yes:

No:

No view

**Commentary:**

65 *The Section concludes by listing a number of tasks that need to be carried out in order to have a national methodology in time. Are there other tasks that could improve transition to the new methodology in the time available?*

Yes:

No:

No view

**Commentary:**

66 *This box is provided to enable you to comment on specific paragraphs in Section 8. Please give the paragraph No. to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No and to copy this layout.)*

**Paragraph or Question No.**

**Response**

**Section 9 - Adaptation Study**

67 *This section considers the impacts that the predictions of UK Climate Change could have on those aspects of the design of buildings that affect energy performance and are therefore capable of being controlled by Building Regulations. Do you agree that the conclusions are comprehensive? If not, please use the comment box to provide further suggestion?*

Agree:

Disagree:

No view

**Commentary:** The possibility of colder winters for the UK if the Gulf Stream warming effect lessens means that it is imperative that insulation levels in both new build and existing buildings are improved.

The effect of hotter summers with the increased possibility of overheating leading to greater use of air conditioning must be addressed using passive design techniques and solar shading devices

68 *This box is provided to enable you to comment on specific paragraphs in Section 9. Please give the paragraph No to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No and to copy this layout.)*

Section 12: Response Form for Consultees' use

| Paragraph or Question No. | Response   |
|---------------------------|--|
| 43                        | The Building Regulations cannot be used to control portable a/c units. Therefore the Government must find other means of controlling these appliances. The Building Regulations can however be used to control “through the wall” a/c units as these then become fixed units and can be controlled with regard to performance standard in the same way as fixed gas fires etc. |
| 47                        | It is imperative that a method is found to ensure effective controls for controlling a/c systems in commercial buildings. It reflects very poorly on the UK that this loophole still exists.   |
| 61                        | By 2010 (and before if possible) there should be mandatory future proofing of roof orientation and design to allow for future fixing of solar thermal or PV technology   |

**Section 10 - Dissemination Strategy**

69 *Are there better ways of approaching dissemination than those proposed in Annex 2?*

Yes:  No:  No view

**Commentary:** (Is this annex 1?) Policing of the building regulations is vitally important. We are concerned about self regulation by developers and strongly favour the independent approved assessors' route.

70 *Are there better ways of proceeding than those proposed in Annex 3?*

Yes:  No:  No view

**Commentary:** (Is this Annex 2?) The AECB welcomes the removal of the elemental trade off approach given its complexity and the extra work entailed for Building Control. Architects and engineers could be used to sign off the building work as happens in some European countries.

71 *Is the Gantt chart programme in Annex 4 incomplete or unrealistic? (Your suggestions and observations on further activities that may be needed and on organisations who could help, and who would wish to be involved, would be welcomed.)*

Yes:  No:  No view

**Commentary:** (This is Annex 3?) Training is vitally important, needs to be Government funded and needs to start immediately. The AECB would like to be involved further with training the UK's workforce in sustainable building. Under the SussEd scheme we are already active in this field.

72 *This box is provided to enable you to comment on specific paragraphs in Section 10. Please give the paragraph No to which you are responding. (Those responding in manuscript or in a separate document are requested to refer to this question No and to copy this layout.)*

**Paragraph or Question No.**

**Response**

**General suggestions and observations.**

73 *Please enter below any other suggestions or observations that you have that do not fit into the preceding format.*

**Commentary:**