

Annex B

Response form 1

Section two:

Part L (Conservation of fuel and power)

Form 1: Consequential improvements for existing buildings

We are seeking your views on the following questions on the Government's proposed changes to Part L of the Building Regulations. This form is to be used to respond to the proposals in Chapter 4 and the changes to Approved Documents L1B and L2B relating to the proposed requirements for consequential improvements in existing buildings. The closing date for the submission of this form is **27 March 2012**.

If possible, please could you respond by email to:

building.regulations@communities.gsi.gov.uk

Alternatively, responses can be sent by post to:

Building Regulations Consultation
Building Regulations and Standards Division
Department for Communities and Local Government
Zone 5/G9
Eland House
Bressenden Place
London SW1E 5DU

About you:

(i) Your details

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(ii) Are the views expressed on this consultation an official response from the organisation you represent or your own personal views?

Organisational response Personal views

(iii) Are your views expressed on this consultation in connection with your membership or support of any group? If yes please state name of group:

Yes No

Name of group:

Chartered Institution of Building Services Engineers (CIBSE), the learned and professional body for building services.

(iv) Please tick the *one* box which best describes you or your organisation:

Builders/Developers:	Property management:
Builder – Main contractor <input type="checkbox"/> Builder – Small builder (extensions/repairs/maintenance, etc) <input type="checkbox"/> Installer/specialist sub-contractor <input type="checkbox"/> Commercial developer <input type="checkbox"/> House builder <input type="checkbox"/>	Housing association (registered social landlord) <input type="checkbox"/> Residential landlord, private sector <input type="checkbox"/> Commercial <input type="checkbox"/> Public sector <input type="checkbox"/>
Building Occupier: Homeowner <input type="checkbox"/> Tenant (residential) <input type="checkbox"/> Commercial Building <input type="checkbox"/>	Building Control Bodies: Local authority building control <input type="checkbox"/> Approved Inspector <input type="checkbox"/>
Designers/Engineers/Surveyors: Architect <input type="checkbox"/> Civil/Structural engineer <input type="checkbox"/> Building services engineer <input checked="" type="checkbox"/> Surveyor <input type="checkbox"/>	Specific Interest: Competent person scheme operator <input type="checkbox"/> National representative or trade body <input type="checkbox"/> Professional body or institution <input checked="" type="checkbox"/> Research/academic organisation <input type="checkbox"/> Energy Sector Fire and Rescue Authority <input type="checkbox"/>

Builders/Developers:	Property management:
Manufacturer/Supply Chain <input type="checkbox"/>	Other (please specify) <input type="checkbox"/> <div style="border: 1px solid black; height: 40px; width: 100%;"></div>

(v) **Please tick the *one* box which best describes the size of your or your organisation's business?**

Micro – typically 0 to 9 full-time or equivalent employees (incl. sole traders)

Small – typically 10 to 49 full-time or equivalent employees

Medium – typically 50 to 249 full-time or equivalent employees

Large – typically 250+ full-time or equivalent employees

None of the above (please specify)

(vi) **Are you or your organisation a member of a competent person scheme?**

Yes No

Name of scheme:

No, but we do run a UKAS accredited energy assessor scheme.

(vii) **Would you be happy for us to contact you again in relation to this consultation?**

Yes No

DCLG will process any personal information that you provide us with in accordance with the data protection principles in the Data Protection Act 1998. In particular, we shall protect all responses containing personal information by means of all appropriate technical security measures and ensure that they are only accessible to those with an operational need to see them. You should, however, be aware that as a public body, the Department is subject to the requirements of the Freedom of Information Act 2000, and may receive requests for all responses to this consultation. If such requests are received we shall take all steps to anonymise responses that we disclose, by stripping them of the specifically personal data – name and e-mail address – you supply in

responding to this consultation. If, however, you consider that any of the responses that you provide to this survey would be likely to identify you irrespective of the removal of your overt personal data, then we should be grateful if you would indicate that, and the likely reasons, in your response, for example in the relevant comments box.

Questions:

Consequential improvements in existing homes

1. Do you agree with the proposal to require consequential improvements upon extensions or increases in habitable space in existing homes below 1000m²? Please explain your view.

Yes No Don't know

Comments

CIBSE agrees in principal with the proposal to introduce consequential improvements for domestic buildings, having called for such a requirement to be introduced in 2010. CIBSE has argued for some time that the greatest potential for reducing emissions is from the existing building stock, and indeed this is borne out by the Draft Impact Assessment that accompanies the consultation package.

We suggest that the proposal should be dependent on limits on application remaining those in Regulation 28 in the current Building Regulations. It would also be appropriate to require consequential works when a dwelling is created as a material change of use.

We also believe that the proposals will only be able to deliver the savings set out in the consultation if they are supported by robust compliance and enforcement measures, and we support the views of the Chairman of the Committee on Climate Change in his recent letter to Andrew Stunnell MP. Unfortunately we can see little evidence of such measures in the proposals, nor any significant allowance for the costs of enforcement in the Impact Assessment. We also note that the IA for the Green Deal suggests that voluntary take up will be low. If that is so, then is it at all credible to expect voluntary compliance with a potentially costly requirement for homeowners. We believe that the current proposals will need active measures to promote compliance, involving both Building Control and the Competent Persons likely to undertake much of the consequential improvement (CI) work. Without these measures the claims for carbon savings, energy savings or energy demand reductions made in the consultation will prove entirely fanciful.

2. The consultation explains that the regulatory requirement for consequential improvements upon domestic extensions or increases in habitable space would be limited to measures which were 'technically, functionally and economically feasible', with guidance setting out a value for the consequential works. Should this be set as:

A minimum 10% of the value of the principal works

A maximum 10% of the value of the principal works

Another % value (please explain below)

Another approach (please explain below)

Don't know

Comments

The extent should be that combination of eligible energy efficiency measures, possibly taken in the order of priority as listed in the EPC, or from a list of "reasonable CI provision measures" with a combined value not less than 10% of the principal works.

3. The consultation proposes that the measures eligible for use as consequential improvements should be the list in SAP which is used to generate Green Deal assessments and Energy Performance Certificate recommendations and to determine eligibility for the Green Deal. Do you agree?

Yes No Prefer a different list (please specify)

Don't know

Comments

Broadly, with possible exceptions for boiler replacement, where some of the potential CIs may not be listed under this approach. We suggest that the the listed measures should be building works as defined in the Building Regulations 2010.

4. Do you agree with the proposal to introduce consequential improvements upon replacement of a domestic boiler in existing homes?

Yes No Don't know

Comments

CIBSE agrees with the principle that a boiler replacement should trigger appropriate consequential works, but has reservations about how this will be applied in practice. The provisions in Regulation 12(8) of the Building Regulations 2010, relating to emergency works, must be retained to allow replacement boilers to be installed as rapidly as is feasible during colder weather. For boiler replacements CIBSE propose that the the list of eligible measures be supplemented by those heating system related measures such as advanced controls and thermostats not already in place, since these are related to the trigger works, and will be within the skills and competence of the the boiler replacement contractor.

5. Do you agree with the proposal to introduce consequential improvements upon replacement of multiple windows in existing homes?

Yes No Don't know

Comments

Subject to a satisfactory de-minimis area to avoid a single window triggering the requirement.

6. What threshold number of replacement windows do you think is most appropriate to trigger consequential improvements:

50% of the windows in the home

50% of the windows in one elevation

Another approach (please explain below)

Don't know

Comments

There are many dwellings with a single window in a gable wall. Would a replacement of that window trigger works? We would propose a de-minimis figure of three windows before the requirement comes in. (There is a risk that people could do three windows at a time, but that is not likely to be cost effective). There may be a case for the de-minimis value to be three windows or at least 25% of the glazed sidelit area of the dwelling.

7. If a requirement for consequential improvements is triggered upon replacement of a domestic boiler, do you think that requirement should be for the homeowner to:

Install the whole package of low-cost measures as outlined in the consultation proposals

Install one or some of these measures (please specify)

Install different measures (please specify)

Take a different approach completely (please specify)

Don't know

Comments

The provisions in Regulation 12(8) of the Building Regulations 2010 relating to emergency installations should be retained. And the the list of eligible measures should be supplemented by those heating system measures not already in place that are within the skills and competence of the the boiler replacement contractor. We do not believe that it will always be realistic to require consequential

works that are not within the skills of the trade carrying out the boiler replacement. Wrapping up the works and the consequential within a package that can be delivered and compliance declared by one trade will minimise the additional cost burden, is likely to be most acceptable to consumers, and minimises the additional demands on Building Control. It is also most consistent with the research undertaken on consumer attitudes to retrofitting of energy efficiency measures.

Currently the requirements on replacement of a boiler are as follows: reasonable provision is defined in the current 2010 compliance guide and in the proposed changes to the 2013 guide which require.

- An 'A' rated boiler unless a non-condensing exception can be justified because of costs/difficulties of flue/drain installation
- If a gravity system then conversion to a fully pumped system in order to accept a modern boiler
- Flushing and cleaning and addition of an inhibitor
- Commissioning
- A wired interlock to switch off the boiler when there is no heating/hot water demand

We understand the regulations to mean that time and temperature zone control is only required for new/replacement systems and not on boiler replacement although supplementary advice is signposted that as you are draining down to install replacement boiler then it is good practice (not reasonable provision) to install TRVs. But you cannot count the additional savings from that measure in any IA unless it is changed from good practice to reasonable provision, although it could be made an eligible measure for CIs.

Boiler Replacement as proposed in the draft 2013 Domestic Compliance Guide will require

- An 'A' rated boiler unless a non-condensing exception can be justified because of costs/difficulties of flue/drain installation
- If a gravity system then conversion to a fully pumped system to accept a modern boiler
- Flushing and cleaning with addition of an inhibitor and commissioning
- Thermostats or programmable thermostats in all zones or boiler

interlock and room thermostat or programmable room thermostat in living area with TRVs in bedrooms and bathrooms

Given the above there may still be some mileage in the CIBSE thinking that more advanced heating controls (load or weather compensator, wireless TRVs) or boiler widgets (flue gas heat recovery, gas savers) represent a more attractive/palatable CI measure upon the replacement of the boiler, although these do not come particularly cheap.

It is not at all clear to CIBSE how requirements to install insulation will be achieved in practice. There is no evidence in the Impact Assessment that there will be any additional building control resource to monitor compliance or undertake enforcement activity to support the measure. It is therefore highly debateable whether anything like the projected levels of carbon emissions reduction will be achieved by such an approach. We believe that widespread non compliance is very likely if a second trade has to be engaged to undertake the consequentials. In addition, if the consequential works are part of the boiler replacement, compliance will fall within the scope of the relevant competent persons scheme, and, in the case of gas appliances, the scope of the Gas Safe Register, which undertakes QA and auditing, and can therefore offer a degree of enforcement of the requirements that would not fall on local authority building control, but on the Gas Safe regime.

There is a final concern that if the consequentials involve other trades, then there will be a potentially unfair and unintended perverse outcome. If the boiler fails in the summer, then it will be far easier and less inconvenient and uncomfortable to cope without a boiler whilst getting a Green Deal assessment and seeking Green Deal finance to cover the replacement boiler. Whereas in winter, this will not be possible, which seems quite unfair.

CIBSE also has concerns about the timetable and practical application of consequentials that cannot be undertaken by the boiler installer. Will there be a period of time in which to undertake the works? And, again, how will that be enforced? And how will it work in the case of social housing, or for private rented houses in multiple occupation with separate appliances, or for buildings divided into flats? If the boiler in Flat A is replaced, what works would have to be done, and how would they impinge on other Flats in the building?

For all these reasons we propose that the requirement for CIs related to boiler replacement should include additional upgrading of the heating system as part of the boiler replacement works, to include

advanced controls and supplementary insulation to the hot water cylinder, where feasible.

We believe that there is also a need to be aware of a possible perverse outcome of unduly onerous requirements to carry out consequential works, which is that owners will get old boilers patched up and repaired to avoid replacement. This is not a desirable outcome.

8. If a requirement for consequential improvements is triggered upon replacement of domestic windows, do you think that requirement should be for the homeowner to:

Install the whole package of low-cost

measures as outlined in the consultation proposals

Install one or some of these measures (please specify)

Install different measures (please specify)

Take a different approach completely (please specify)

Don't know

Comments

It is clear from the potential savings in the IA that CIs associated with replacement windows and boilers are a significant prize. CIBSE believes that it is essential to offer those who comply willingly maximum flexibility to make worthwhile improvements, whilst seeking to ensure that there is an effective mechanism in place to ensure compliance. This will be difficult to achieve without some resources applied to enforcement, and these do not appear to be allocated in the IA at present.

9. The proposals assume that doing the principal and consequential works at the same time, rather than separately, will reduce hassle and cost. Do you agree with this assumption? Please explain your view.

Yes No Don't know

Comments

If the consequential works are triggered by equipment failure (ie most boiler replacements) and they are not electronic heating control accessories whose fitting will not damage furnishings and decor there will be administrative burdens and additional hassle for the dwelling occupiers. CIBSE commends the work of the EPSRC funded CALBRE project on consumer acceptance to DCLG and DECC on this topic. The potential to aggravate rather than incentivise consumers is significant, with the associated political risks.

10. What effect do you think the requirements for consequential improvements

may have on the demand for repair, maintenance and improvement activity?
Please use evidence to explain your answer.

Increase demand

Reduce demand

No effect

Don't know

Comments

The market for replacing boilers in dwellings is substantial at 1.2 million units per year. The alternative CIs proposed above could trigger substantial increases in the market for electronic heating controls in general and programmable controllers in particular. The market for replacement pre-insulated, high efficiency hot water cylinders would also be boosted if these are added to the list of eligible works. (Many existing cylinders perform significantly worse than the standard in the current Building Regulations Domestic Heating Compliance Guide. Their coils are too short and factory applied insulation, if it exists, is too thin.)

However, unduly onerous requirements relating to consequential improvements associated with boiler replacement could perversely lead to an increase in boiler repairs, with unwanted impacts on carbon emissions and significantly reduced savings.

11. The Impact Assessment makes a number of assumptions in relation to the introduction of consequential improvements in existing homes, including figures on costs, numbers of extensions and replacements and other issues. Do you think these assumptions are fair and reasonable? Please justify your views.

Yes No Don't know

Comments

CIBSE is only able to respond in relation to domestic heating, and we are aware that the manufacturers and installation contractors are sceptical about the published figures because derivations are unavailable. Other interested parties are similarly unable to evaluate either the government figures or the industry scepticism.

12. Overall, do you think the impact assessment is a fair and reasonable

assessment of the potential costs and benefits of the proposed options for consequential improvements in existing homes? Please justify your view and provide alternative evidence if necessary.

Yes No Don't know

Comments

CIBSE are only able to respond in relation to domestic heating. In broad terms in determining measures' comparative cost-effectiveness yes. But manufacturers and installation contractors are sceptical about the published figures because derivations are unavailable, and other watching interests are similarly unable to evaluate either the government figures or the industry scepticism. We have some concerns about the practical implementation of consequential improvements where boilers fail, and the possible inequity of the timing of the failure and possible Green Deal finance. For example, a boiler that fails in the winter will require urgent replacement, whereas in summer it may be possible to delay the replacement so that it can be funded within a Green Deal package. That seems unfair and inequitable and disproportionate. We suggest that consideration be given to allowing a boiler replacement to be "carried back" into the scope of a Green Deal package where the CIs or other associated works are undertaken within a reasonable period, say 90 days, of the emergency replacement works.

13. Please provide your views on any other costs, benefits or impacts associated with the proposals for consequential improvements which you think have not been discussed or monetised in the impact assessment.

Comments

Replacement pre-insulated, high efficiency hot water cylinders should be added to the list of eligible efficiency measures. Many existing cylinders perform significantly worse than the standard in the current Building Regulations Domestic Heating Compliance Guide. Their coils are too short and factory applied insulation, if it exists, is too thin. An additional benefit would be removal of older cylinders whose poorer performance in most water supply areas is further impaired by limescale.

Consequential improvements in existing non-domestic buildings

14. Do you agree with the proposal to introduce consequential improvements upon extensions or increases in habitable space in non-domestic buildings under 1000m²? Please explain your view.

Yes No Don't know

Comments

So long as the other limits on application in the Building Regulations 2010 remain in place. Most retrofit work in buildings other than dwellings is carried out in buildings with floor areas around 200-300m². This is the obvious focus if the aim is to achieve maximum aggregate impact on energy consumption / carbon emissions.

15. The consultation explains that the regulatory requirement for consequential improvements upon non-domestic extensions and increases in habitable space would be limited to measures which were 'technically, functionally and economically feasible', with guidance setting out a value for the consequential works. Should this be set as:

A maximum of 10% of the value of the principal works

A minimum of 10% of the value of the principal works

Another % value (please explain below)

Another approach (please explain below)

Don't know

Comments

The extent should be that combination of eligible energy efficiency measures taken in the order of priority as listed in the EPC with combined value not less than 10% of the principal works.

16. The consultation proposes that for non-domestic buildings, any measure from list which is used to generate Green Deal assessments, the list in SBEM used to generate Energy Performance Certificate recommendations and the existing list of typical consequential improvement measures from Approved Document L2B should be eligible to be a consequential improvement. Do you agree?

Yes

No

Prefer a different list (please specify)

Don't know

Comments

So long as the listed measures are building works as defined in the Building Regulations 2010.

17. Subject to further work on specific triggers, do you agree with the concept of introducing consequential improvements on replacement of certain fixtures or fittings in non-domestic buildings under 1000m²?

Yes No Don't know

Comments

So long as the fixtures and fittings are a controlled service or fitting as defined in the Building Regulations.

18. Do you agree that the current requirements for consequential improvements on initial provision of a fixed building service or increase in capacity of a fixed building service in buildings larger than 1000m² should be retained unchanged?

Yes No Don't know

Comments

Subject to publication of analysis showing a change would be disproportionate it is suggested that the threshold should be reduced to the median floor area of the existing stock of buildings other than dwellings. This value is probably in the 200-300 m² range. There may be a benefit in distinguishing different thresholds if the median values for offices, storage buildings etc differ significantly.

19. We would welcome comments on whether there are specific replacement works which could be used to trigger consequential improvements for non-domestic buildings, and any views on the illustrative case studies in the impact assessment.

Comments

Material change of use. Replacement of heating, ventilation and air conditioning fixed building services whether because of breakdown or at end of life.

Process and compliance issues

20. In the case of domestic and non-domestic extensions and increases in habitable space in buildings under 1000m², do you think that the proposed process for building occupiers to assess what consequential improvements are/are not required, and to demonstrate this to building control, is adequate?

Please explain your view.

Yes No Don't know

Comments

Yes - if the non-statutory (in italics) guidance in the Approved Documents is reviewed for scope and clarity to lay readers and the Building Regulations Explanatory Booklet is updated

21. In the case of replacement of a domestic boiler, do you think that the proposed process for building occupiers to assess what consequential improvements are/are not required, and to demonstrate this to building control, is adequate? Please explain your view.

Yes No Don't know

Comments

Para 6.6 in the draft ADL1B says nothing about the waiver on the requirement to give notice in the event of a boiler failure and nothing on how the suggested consequential measures could be commissioned or managed, or how building control bodies should be approached. The suggested measures are unsatisfactory. Why 250mm of loft insulation when the current recommendation and the thicknesses of insulation on sale look to 270mm. Replacing the cylinder with a more efficient one that is better insulated is not currently an option and should be. The cylinder insulation suggestions should anticipate that most linen cupboards will limit or prevent additional insulation. The non-statutory (in italics) guidance in the Approved Documents needs a review for scope and clarity to lay readers and the Building Regulations Explanatory Booklet needs to be updated. We believe that it will be far easier to provide clear and understandable guidance if the works in relation to replacement boilers are limited to the heating system and can be explained, installed, commissioned and handed over by the one trade.

22. In the case of replacement domestic windows, do you think that the proposed process for building occupiers to assess what consequential improvements are/are not required, and to demonstrate this to building control, is adequate? Please explain your view.

Yes No Don't know

Comments

23. Do you think that the proposed role for building control bodies in the delivery of consequential improvements and compliance checking is appropriate and workable? Please explain your view.

Yes No Don't know

Comments

If the proposals are implemented and are successful the volume of building work "applications" will be vastly increased. Building Control Bodies are understaffed and under-resourced to the extent that in other elements of the consultation document proposals are made towards a more risk based supervision. Waiving of the need to notify or notify in advance and Approved Competent Persons (ACP) schemes may offer solutions But the current set of ACP schemes in Schedule 3 are skill or industry based so would need amendment to achieve competence in mixtures of heating, air conditioning and fabric measures, or there would need to be the addition of new "types of work" for different, and perhaps new, multi-trade contractors. CIBSE believes that proper enforcement and compliance and credible achievement of the proposed savings from CIs could be hugely undermined without a robust, credible and appropriate enforcement regime and a concerted campaign with tangible financial rewards to encourage householders to take part. At present, we do not believe that they are, and we believe that the current claimed carbon reductions are unattainable without serious attention to the building control issues.

24. Do you think the proposed role for Competent Persons schemes, Gas Safe engineers, builders and other installers in the delivery of consequential improvements is appropriate and workable? Please explain your view.

Yes No Don't know

Comments

The current set of ACP schemes in Schedule 3 are skill or industry based so would need amendment to achieve competence in mixtures of heating, air conditioning and fabric measures And or there would need to be the addition of new "types of work" for different, and perhaps new,

multi-trade contractors.

25. Would you prefer requirements for consequential improvements for existing homes and non-domestic buildings to be introduced:

On a phased basis between 2012 and 2014 (the Government's preferred option)

All at once in October 2012

At a different date or dates (please explain below)

Don't know

Comments

There will need to be a massive training programme for traders on the administrative and technical demands on implementing the boiler and window consequential, and a concerted information campaign aimed at traders and the public alike. Any earlier implementation would be hugely challenging and risk creating a poor early impression and negative PR for the measures. Whilst we understand the enthusiasm of the CCC on this point, we believe that their wish to see early adoption is probably unrealistic.

26. If you have any other comments or suggestions on the proposals for consequential improvements, please make them here:

Comments

CIBSE believes that considerable details remain to be resolved for these proposals to be successful. We would be willing to work with the two Departments, manufacturers, contractors, other Institutions, skills training agencies, and equally important with consumer interests to help to develop the required details and to roll the project out to industry and the public.

About CIBSE.

CIBSE is the learned and professional body for building services engineers, with a global membership of almost 20,000 people, over two thirds of whom work in the United Kingdom and will be affected by the introduction of the Green Deal. Our members work in the manufacture of products and systems that will be funded under the green deal, and in the design and installation and operation of

these products and systems for the buildings that will be built, refurbished and improved under these proposals

The Institution exists to 'support the Science, Art and Practice of building services engineering, by providing our members and the public with first class information and education services and promoting the spirit of fellowship which guides our work.' CIBSE sets standards for building services engineering in the UK and overseas, publishing the CIBSE Guide, Commissioning Codes and other guidance material recognised internationally as authoritative and setting the criteria for best practice in the provision of energy using systems in buildings.