

# Response ID ANON-CXDN-XVXD-Q

Submitted to Future Homes and Building Standards 2023 consultation  
Submitted on 2024-03-26 19:16:30

## Introduction

What is your name?

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## 1 Scope of Consultation

Question 1 Are you responding as / on behalf of (select all that apply):

Designer/Engineer/Surveyor, Architect, Professional body or institution, Research/Academic organisation

Question 2 If you are responding as a member of the public/ a building professional, what region are you responding from?

g. London

Question 3 If you are responding as a member of the public, are you a:

Not Answered

Question 4 If you are responding on behalf of a business/organisation, what is the name of your business/organisation?

Please provide the name of your business/organisation here.:

the Edge

Question 5 If you are responding on behalf of a business/organisation, where is your business/organisation based/registered?

g. London

Question 6 When you respond it would be useful if you can confirm whether you are replying as an individual or submitting an official response on behalf of an organisation and include: your name, your position (if applicable), the name of organisation (if applicable), an address (including post-code), an email address, and a contact telephone number. (Your personal data is being collected so that we can contact you regarding your response and for statistical purposes, an essential part of the consultation process. We may also use it to contact you about related matters. Please see the Privacy Notice in Annex A of the consultation paper for further information on how we use this data.)

Please provide details here.:

This response is on behalf of the Edge

'the Edge is a built and natural environment think tank and network. It is multi-disciplinary in a landscape remarkable for its abundance of single-discipline institutions. Started as a means of creating a shared space between the architectural and engineering institutions, the Edge is a voluntary group with no staff and multiple stakeholders across the built and natural environment professions. We encourage cross-disciplinary debate and campaign for change that will improve outcomes for society.'

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## 2 Acronyms

## 3 Introduction

## 4 Performance requirements for new buildings

Question 7 Which option for the dwelling notional buildings (for dwellings not connected to heat networks) set out in The Future Homes Standard 2025: dwelling notional buildings for consultation do you prefer?

a. Option 1 (higher carbon and bill savings, higher capital cost)

Question 8 What are your priorities for the new specification? (select all that apply)

lower bills, carbon savings

Please provide any additional comments to support your view on the notional building for dwellings not connected to heat networks.:

All new buildings should be capable of achieving net zero, either through fabric and systems efficiency or by being 'Net Zero ready'. The first of these is preferable. Relying on de-carbonising the grid is a poor overall solution

Energy use and therefore bills need to be reduced to the greatest possible extent, both for cost of living and heat poverty reason and as there is a limit to the amount of decarbonised electricity that is or will be available

Question 9 Which option for the dwelling notional buildings for dwellings connected to heat networks set out in The Future Homes Standard 2025: dwelling notional buildings for consultation do you prefer?

a. Option 1 (higher carbon and bill savings, higher capital cost)

Please provide any additional comments on the specification of the heat network in the notional building.:

Energy efficiency is a priority as is lower energy use and bills for building users

Question 10 Which option do you prefer for the proposed non-domestic notional buildings set out in the NCM modelling guide?

a. Option 1

Question 11 What are your priorities for the new specification?

lower bills, carbon savings

Please provide additional information to support your view on the proposed non-domestic notional buildings set out in the National Calculation Methodology modelling guide.:

Carbon and energy saving is the main priority and should lead to lower energy bills

## 5 Metrics

Question 12 Do you agree that the metrics suggested in Section 5 'Metrics' of the consultation paper (TER, TPER and FEE) should be used to set performance requirements for the Future Homes and Buildings Standards?

c. No, I think delivered energy should be used

If you selected answer options b or e, please provide further information here.:

The aim should be to reduce delivered energy to buildings in whatever form it comes. Appropriate allowance can be made for unregulated energy.

It make far more sense to use kWh/m2/yr as the basic, and straightforwardly measurable, metric for buildings, especially homes. Primary energy calculations are complex and inaccessible to almost everyone without specialist knowledge.

## 6 Updated guidance and minimum standards

Question 13 Do you agree with the proposed changes to minimum building services efficiencies and controls set out in Section 6 of draft Approved Document L, Volume 1: Dwellings?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 14 Do you agree with the proposal to include additional guidance around heat pump controls for homes, as set out in Section 6 of draft Approved Document L, Volume 1: Dwellings?

c. No (please provide justification)

If you selected answer options b or c, please provide further information here.:

While we support additional guidance being provided for heat pump controls it would be far better if the controls were properly and effectively designed to work intuitively with guidance and feedback available on the control screen itself.

There is an urgent need for proper standards for good control interface design and a consumer (or other) body to grade controls according to how usable and consumer friendly they are.

Question 15 Do you agree that operating and maintenance information should be fixed to heat pump units in new homes?

c. No (please provide justification)

If you selected answer options b or c, please provide further information here.:

While we support such information being provided for heat pump o&m it would be far better if this was available as part of the control screen and on mobile devices via a QR code on heat pumps and other equipment. This would make it updateable, easily accessible, capable of being augmented with added information and videos etc, and generally far more useful.

Question 16 Do you think that the operating and maintenance information set out in Section 10 of draft Approved Document L, Volume 1: Dwellings is sufficient to ensure that heat pumps are operated and maintained correctly?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 17 Do you agree with the proposed changes to Section 4 of draft Approved Document L, Volume 1: Dwellings, designed to limit heat loss from low carbon heating systems?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 18 Do you agree with the proposed sizing methodology for hot water storage vessels for new homes?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 19 Do you agree with the proposed changes to minimum building services efficiencies and controls set out in Section 6 of draft Approved Document L, Volume 2: Buildings other than dwellings?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 20 Do you agree with the proposed guidance on the insulation standard for building heat distribution systems in Approved Document L, Volume 2: Buildings other than dwellings?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 21 Do you agree that the current guidance for buildings with low energy demand which are not exempt from the Building Regulations, as described in Approved Document L, Volume 2: Buildings other than dwellings should be retained without amendment?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 22 Do you agree that lifts, escalators and moving walkways in new buildings (but not when installed withing a dwelling) should be included in the definition of fixed building services?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 23 Do you agree with the proposed guidance for passenger lifts, escalators and moving walkways in draft Approved Document L, Volume 2: Buildings other than dwellings?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 24 Do you have any further comments on any other changes to the proposed guidance in draft Approved Document L, Volume 2: Buildings other than dwellings?

b. No

If you selected answer option a, please provide comments here.:

## 7 Material Change of Use

Question 25 Should we set whole-building standards for dwellings created through a material change of use?

a. Yes

If you selected answer option c, please provide further information here.:

Question 26 Should the proposed new MCU standard apply to the same types of conversion as are already listed in Approved Document L, Volume 1: Dwellings?

b. No, standards should also apply to non-dwelling accommodation e.g., student or patient accommodation, care homes, and hotels

If you selected answer option c or d, please provide further information here.:

Question 27 Should different categories of MCU buildings be subject to different requirements?

a. Yes

If you selected answer option b, please provide further information here.:

Question 28 Which factors should be taken into account when defining building categories? (check all those that apply)

height of the building, i.e., low versus mid- to high-rise buildings., floor area of the building, whether the conversion is a part- or whole-building conversion, Other (please state)

Please provide additional information to support your view.:

Other - Listed buildings need to be treated individually

Question 29 Do you agree with the illustrative energy efficiency requirements and proposed notional building specifications for MCU buildings?

Not Answered

Question 30 If you answered no to the previous question, please provide additional information to support your view. Select all that apply. The requirements are:

If you selected answer option "other", please provide further information here.:

Question 31 Do you agree with using the metrics of primary energy rate, emission rate and fabric energy efficiency rate, if we move to whole dwelling standards for MCU buildings?

c. No (please provide justification)

If you selected answer option b or c, please provide further information here.:

As with question 12 the delivered energy metric of kWh/m2/yr should be used as this is readily accessible to building owners, operators and occupants.

It is possible that an alternative metric of kWh/m3/yr which might be appropriate for some MCU buildings

Question 32 Under what circumstances should building control bodies be allowed to relax an MCU standard?

b. Building control bodies should be able to relax under the following circumstances (please provide further details)

If you selected answer option b, please provide further information here.:

In the case of listed buildings

Question 33 Do you have views on how we can ensure any relaxation is applied appropriately and consistently? Please select all that apply:

there should be guidance on circumstances where relaxation of the notional standard may be appropriate, there should be monitoring of how relaxation is applied, only formal relaxation or dispensation through the local authority should be possible

If you selected answer option "other", please provide further information here.:

Question 34 Should a limiting standard be retained for MCU dwellings?

Not Answered

If you selected answer option a or e, please provide further information here.:

Question 35 If a limiting standard is retained, what should the limiting standard safeguard against? Please select all that apply:

If you selected "high energy demand and energy bills" or "other", please provide further information here.:

Question 36 Do you wish to provide any evidence on the impacts of these proposals including on viability?

Not Answered

If you selected answer option a, please provide further information here.:

Question 37 Do you agree that a BREL report should be provided to building control bodies if we move to energy modelling to demonstrate compliance with MCU standards

b. Yes, and photographic evidence is needed

If you selected answer options c or d, please provide further information here.:

Question 38 Do you agree that consumers buying homes created through a material change of use should be provided with a Home User Guide when they move in?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 39 Do you agree that homes that have undergone an MCU should be airtightness tested?

a. Yes

If you selected answer options b or c, please provide further information here.:

## 8 Real-world performance of homes

Question 40 Do you think that we should introduce voluntary post occupancy performance testing for new homes?

a. Yes

If you selected answer options b or c, please provide further information here.:

Post occupancy testing and reporting is essential if the performance gap is to be closed and should be mandatory

Question 41 Do you think that the government should introduce a government-endorsed Future Homes Standard brand? And do you agree permission to use a government-endorsed Future Homes Standard brand should only be granted if a developer's homes perform well when performance tested? Please include any potential risks you foresee in your answer.

d. No (please provide justification)

If you selected answer options b or d, please provide further information here.:

As testing should be mandatory this should be unnecessary and all buildings need to comply

Even without mandatory testing it would result in different expectations even when there was one legal requirement

There is no capacity in the system to check for this

It would be a hostage to fortune and result in reputational damage

Question 42 Do you agree with the proposed changes to Approved Document F, Volume 1: Dwellings to improve the installation and commissioning of ventilation systems in new and existing homes?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 43 Do you agree with the proposal to extend Regulation 42 to the installation of mechanical ventilation in existing homes as well as new homes?

c. No (please provide justification)

If you selected answer options b or c, please provide further information here.:

The principle is fine but the reality is probably impractical leading to avoidance and regulation flouting.

Question 44 Do you think the guidance on commissioning hot water storage vessels in Section 8 of draft Approved Document L, Volume 1: Dwellings is sufficient to ensure they are commissioned correctly?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 45 Are you aware of any gaps in our guidance around commissioning heat pumps, or any third-party guidance we could usefully reference?

Not Answered

If you selected answer option a, please provide further information here.:

Question 46 Do you think the guidance for commissioning on-site electrical storage systems in Section 8 of draft Approved Document L, Volume 1: Dwellings is sufficient to ensure they are commissioned correctly?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 47 Do you agree with proposed changes to Approved Document L, Volume 1: Dwellings and Approved Document F, Volume 1: Dwellings to (a) clarify the options for certifying fixed building services installations and (b) set out available enforcement options where work does not meet the required standard?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 48 Do you think the additional information we intend to add to the Home User Guide template, outlined above, is sufficient to ensure home occupants can use their heat pumps efficiently?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 49 If you are a domestic developer, do you use, or are you planning to use, the Home User Guide template when building homes to the 2021 uplift? Please give reasons in your response.

Not Answered

Please provide further details here. :

Question 50 Do you have a view on how Home User Guides could be made more useful and accessible for homeowners and occupants, including on the merits of requiring developers to make guides available digitally? Please provide evidence where possible.

b. No

If you selected answer option a, please provide further information here.:

It is more important that home controls are better designed than their faults are overcome by more, and more complex, guidance

Question 51 Do you think that there are issues with compliance with Regulations 39, 40, 40A and 40B of the Building Regulations 2010? Please provide evidence with your answer.

Not Answered

Please provide justification here. :

Question 52 Do you think that local authorities should be required to ensure that information required under Regulations 39, 40, 40A and 40B of the Building Regulations 2010 has been given to the homeowner before issuing a completion certificate?

Not Answered

If you selected answer options b or c, please provide further information here.:

## 9 Heat Networks

Question 53 Do you agree that new homes and new non-domestic buildings should be permitted to connect to heat networks, if those networks can demonstrate they have sufficient low-carbon generation to supply the buildings' heat and hot water demand at the target CO2 levels for the Future Homes or Buildings Standard?

b. Yes, and I'd like to provide further information

If you selected answer options b or c, please provide further information here.:

In principle yes but:

1. It is important that home owners can opt out of heat networks
2. There should be a level playing field for assessing the efficacy of heatworks against other systems

Question 54 Do you agree that newly constructed district heating networks (i.e., those built after the Future Homes and Buildings Standard comes into force) should also be able to connect to new buildings using the sleeving methodology?

c. No (please provide justification)

If you selected answer options b or c, please provide further information here.:

The sleeving methodology is not scientifically robust.

- It is biased towards the on-going use of heat networks even when most of their heat is generated by fossil fuels.
- It does not provide a clear pathway for buildings already connected to the network to decarbonise.

Question 55 Do you agree with the proposed guidance on sleeving outlined for Heat Networks included in Approved Document L, Volume 1: Dwellings and Approved Document L, Volume 2: Buildings other than dwellings?

c. No (please provide justification)

If you selected answer options b or c, please provide further information here.:

The sleeving methodology is not scientifically robust.

- It is biased towards the on-going use of heat networks even when most of their heat is generated by fossil fuels.
- It does not provide a clear pathway for buildings already connected to the network to decarbonise.

Question 56 Do you agree that heat networks' available capacity that does not meet a low carbon standard should not be able to supply heat to new buildings?

a. Yes

If you selected answer option b, please provide further information here.:

Heat networks should also be required to deliver net zero heating etc.

Question 57 What are your views on how to ensure low-carbon heat is used in practice?

Please provide any comments here.:

Question 58 Are there alternative arrangements for heat networks under the Future Homes and Building Standards that you believe would better support the expansion and decarbonisation of heat networks?

Please provide any comments here.:

## 10 Smart Meters

Question 59 Do you agree that the draft guidance provides effective advice to support a successful smart meter installation in a new home, appropriate to an audience of developers and site managers?

Not Answered

If not, please provide suggestions for how the draft guidance could be improved. Please provide evidence and sources for your statements where appropriate. :

Question 60 Do you agree that voluntary guidance referenced in draft Approved Document L, Volume 1: Dwellings is the best approach to encouraging smart meters to be fitted in all new domestic properties?

b. No

If not, is there anything else you think the government should be doing to ensure that smart meters are fitted in all new build properties? :

Smart meters should not be seen as a failsafe means of monitoring domestic properties. They are heavily prone to failure.

## 11 Accounting for exceptional circumstances

Question 61 Do you agree that it should be possible for Regulation 26 (CO2 emission rates) to be relaxed or dispensed with if, following an application, the local authority or Building Safety Regulator concludes those standards are unreasonable in the circumstances?

b. No (please provide justification)

If you selected answer option b, please provide further information here.:

Building Regulations represent a minimum standard, relaxing them in 'certain circumstances' represents a slippery slope likely to disadvantage the poorest and most vulnerable.

Question 62 If you responded yes to the previous question, please share any examples of circumstances where you think it may be reasonable for a local authority to grant a relaxation or dispensation.

Please share any examples here. :

Question 63 Do you think that local authorities should be required to submit the applications they receive, the decisions they make and their reasoning if requested?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 64 Are there any additional safeguards you think should be put in place to ensure consistent and proportionate use of this power?

Please provide any comments here.:

## 12 Legislative changes to the energy efficiency requirements

Question 65 Do you agree that Part L1 of Schedule 1 should be amended, as above, to require that reasonable provision be made for the conservation of energy and reducing carbon emissions?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 66 Do you agree that regulations 25A and 25B will be redundant following the introduction of the Future Homes and Buildings Standards and can be repealed?

c. No (please provide justification)

If you selected answer options b or c, please provide further information here.:

No - this represents magical thinking that buildings will be zero-carbon ready simply because it is asserted.

## 13 A review of our approach to setting standards

Question 67 Do you agree that the Home Energy Model should be adopted as the approved calculation methodology to demonstrate compliance of new homes with the Future Homes Standard?

a. Yes

If you selected answer options b or c, please provide further information here.:

Question 68 Please provide any comments on the parameters in the notional building.

Please provide any comments here.:

Question 69 Minimum standards already state that heat pumps should have weather compensation and we would like to understand if stakeholders think this is enough to ensure efficiency of heat pumps under the varying weather conditions across England. Should the notional building use local weather?

a. Yes

Please provide any evidence you have on the unintended consequences that could arise as a result of using local weather in the notional building. If possible, please comment on the impact on the construction industry in terms of design and building feasibility. We also welcome views on whether weather compensation is sufficient to ensure heat pump efficiency.:



Question 70 Do you agree with the revised guidance in The Future Homes Standard 2025: dwelling notional buildings for consultation no longer includes the average compliance approach for terraced houses?

a. Yes

Please provide any evidence you have on the unintended consequences that could arise as a result of these changes.:

Question 71 Do you agree with the revised guidance in Approved Document L, Volume 1: Dwellings which states that you should not provide a chimney or flue when no secondary heating appliance is installed?

a. Yes

Please provide any further evidence.:

Question 72 Do you agree with the proposed approach to determine U-values of windows and doors in new dwellings?

a. Yes

Please provide any further evidence.:

Question 73 Do you agree with the proposal to remove the default  $\psi$ -value for assessing thermal bridges in new dwellings?

Not Answered

If you selected answer options b or c, please provide further information here.:

Question 74 Do you have any information you would like to provide on the homes built to the Future Homes Standard using curtain walling?

Please provide any comments here.:

Question 75 Do you agree with the methodology outlined in the NCM modelling guide for the Future Buildings Standard?

Not Answered

If you selected answer option b, please provide further information here.:

Question 76 Please provide any further comments on the cSBEM tool which demonstrates an implementation of the NCM methodology.

Please provide any comments here.:

Question 77 Please provide any further comments on the research documents provided alongside the cSBEM tool and which support the development of the NCM methodology, SBEM and iSBEM.

Please provide any comments here.:

## 14 Transitional Arrangements

Question 78 Which option describing transitional arrangements for the Future Homes and Buildings Standard do you prefer (page 83)? Please use the space provided to provide further information and/or alternative arrangements.

a. Option 1

Please provide further information or suggest alternative transitional arrangements with your rationale and supporting evidence.:

Transitional arrangements should not be extended beyond six months.

The installation of gas boilers should be brought to an end as soon as possible.

Question 79 Will the changes to Building Regulations proposed in this consultation lead to the need to amend existing planning permissions? If so, what amendments might be needed and how can the planning regime be most supportive of such amendments?

a. Yes (please provide further information)

If you selected answer option a, please provide further information here.:

Yes - but only to a very limited extent, that should be pragmatically dealt with

Question 80 Do you agree that the 2010 and 2013 energy efficiency transitional arrangements should be closed down, meaning all new buildings that do not meet the requirements of the 2025 transitional arrangements would need to be built to the Future Homes and Buildings Standards?

a. Yes

If you selected answer option b, please provide further information here.:

Question 81 What are your views on the proposals on page 85 and do you have any additional evidence to help us reach a final view on the closing of historical transitional arrangements?

Please provide any comments here.:

## 15 Part O – Call for Evidence

Question 82 Part O does not apply when there is a material change of use. Should it apply?

a. Yes

Please provide more details about why Part O should/should not apply to a material change of use and, if possible, point to existing evidence/examples that demonstrates your view.:

MCU should not alter the need to comply with overheating requirements

Question 83 Apart from material change of use, is there anything missing from the current scope of Part O?

Not Answered

Please provide further information here.:

Question 84 Can you provide evidence on how the addition of extensions or conservatories to domestic buildings can impact overheating risk on an existing building?

b. No

If you selected answer option a, please provide further information here.:

Question 85 We are currently reviewing Part O and the statutory guidance in Approved Document O. Do you consider there to be omissions or issues concerning the statutory guidance on the simplified method for demonstrating compliance with requirement O1, for buildings within the scope of requirement O1

Not Answered

If you selected answer option a, please provide further information here.:

Question 86 Do you consider there to be omissions or issues concerning the statutory guidance on the dynamic thermal modelling method for demonstrating compliance with requirement O1 for all residential buildings?

Not Answered

If you selected answer option a, please provide further information here.:

Question 87 Do you consider there to be omissions or issues concerning the statutory guidance on ensuring the overheating mitigation strategy is usable for buildings within the scope of requirement O1?

Not Answered

If you selected answer option a, please provide further information here.:

Question 88 Do you consider there to be omissions or issues concerning the statutory guidance on protection from falling?

Not Answered

If you selected answer option a, please provide further information here.:

Question 89 Are you aware of ways that Approved Document O could be improved, particularly for smaller housebuilders?

Not Answered

If you selected answer option a, please provide further information here.:

Question 90 Does Regulation 40B require revision?

Not Answered

If you selected answer option a, please provide further information here.:

Question 91 Do you consider there to be omissions or issues concerning the statutory guidance on providing information?

Not Answered

If you selected answer option a, please provide further information here.:

Question 92 Are there any improvements that you recommend making to the information provided about overheating in the Home User Guide template?

Not Answered

If you selected answer option a, please provide further information here.:

Question 93 Are there any omissions or issues not covered on page 90 with the statutory guidance in Approved Document O that we should be aware of?

Not Answered

If you answered yes, please provide more details including suggestions on ways to improve the statutory guidance and point to existing evidence/examples that demonstrates why the gaps or issues you have identified should be reviewed as a priority.:

## 16 Equalities and Impact Assessments

Question 94 Please provide any feedback you have on the potential impact of the proposals outlined in this consultation document on persons who have a protected characteristic. If possible, please provide evidence to support your comments.

Please provide any comments here.:

Question 95 Please provide any feedback you have on the impact assessments.

Please provide any comments here.: