



The Future Homes Standard Changes to Part L and Part F of the Building Regulations for new dwellings

Response from The Heat Network

The Heat Network is a peer group of social housing providers who meet to discuss and share good practice about district and communal heating. We bring together our own communal heat experiences and share the lessons we've learnt with colleagues across the sector through our [website](#).

We currently have 13 housing association and 6 local authority members, as well as representation from the National Housing Federation. Collectively, we represent 80,000 homes on over 900 networks when you also include our metered schemes, 7% of all heat networks as defined by BEIS and 17% of all customers.

We have only responded to the questions that particularly affect heat networks and/or vulnerable householders living in our homes.

Our response to the consultation questions is below. However, we wish to particularly stress:

- The proposal for homes built under the Future Homes Standard to produce 75-80% less carbon does not go far enough. We are living in a climate emergency: a sense of urgency is required to ensure the homes we build now and from 2025 meet our net zero carbon commitments. This level of reduction would actually be a retrograde step in some areas of the country (eg London).
- A Fabric First approach to minimise energy requirements is vital: low carbon heat should then be used only to meet residual space heating and hot water needs.
- Heat pumps and heat networks have a vital role to play in new homes of the future, but they need to be implemented strategically and where they are best suited to local circumstances. This could be considered as part of a zoning approach, as proposed by the Association for Decentralised Energy. Existing heat networks also need to be decarbonised in order to realise their full potential.
- Existing heat networks will become a particular issue when the 'Future Homes Standard for existing domestic buildings' is consulted on later this year. Many of them are 'unknown unknowns', currently unmetered and inefficient. As awareness rises amongst the general public about heat networks, there is a reputational risk that more people will begin to complain. A phased and ongoing improvement programme is needed for our legacy heat networks and this will require both financial resource and a skilled supply chain, neither of which are currently available but both of which the government has the power to influence and stimulate.

The Future Homes Standard

Q1 Do you agree with our expectation that a home built to the Future Homes Standard should produce 75-80% less CO2 emissions than one built to current requirements?

a. Yes

b. No - 75-80% is too high a reduction in CO2

c. No - 75-80% is too low a reduction in CO2

If no, please explain your reasoning and provide evidence to support this.

C. We do not think the 75-80% reduction goes far enough. The London Plan for example has been demanding higher energy standards than this since 2016 which the supply chain have now geared towards and are innovating to meet the zero carbon requirements. The 75-80% reduction outlined in this consultation would be a retrograde step. We are in a climate emergency: a sense of urgency is required to ensure the homes we build now and from 2025 meet our net zero carbon commitments.

Q2 We think heat pumps and heat networks should typically be used to deliver the low carbon heating requirement of the Future Homes Standard. What are your views on this and in what circumstances should other low carbon technologies, such as direct electric heating, be used?

We agree that heat pumps and heat networks have a vital role to play in the Future Homes Standard and beyond. However, they should be implemented strategically, where they are best suited to local circumstances. Access to waste heat, geothermal energy and water bodies for example should be key considerations. This could be considered as part of a zoning approach, as proposed by the Association for Decentralised Energy. Existing heat networks also need to be decarbonised in order to realise their full potential.

A Fabric First approach to minimise energy requirements is vital: low carbon heat should then be used only to meet residual space heating and hot water needs. Care must be taken when installing direct electric heating to ensure that it is not unduly expensive for the residents, which could potentially drive them into fuel poverty.

There is also a wider point about existing heat networks. Many of them are 'unknown unknowns', currently unmetered and inefficient. The re-invigorated Heat Network (Metering and Billing) Regulations, the consultation on which closed last month, and the new Heat Network Framework Regulations, which we're expecting to hear more about in the near future, will bring these into sharp focus. As awareness rises amongst the general public about heat networks, there is a reputational risk that more people will begin to complain. A phased and ongoing improvement programme is needed for our legacy heat networks, and this will require both financial resource and a skilled supply chain, neither of which are currently available but both of which the government has the power to influence and stimulate. This will become a particular issue when the 'Future Homes Standard for existing domestic buildings' is consulted on later this year.

Q3 Do you agree that the fabric package for Option 1 (Future Homes Fabric) set out in Chapter 3 and Table 4 of the impact assessment provides a reasonable basis for the fabric performance of the Future Homes Standard?

a. Yes

b. No - the fabric standard is too demanding

c. No - the fabric standard is not demanding enough

If no, please explain your reasoning.

C. A Fabric-First approach to design is the best way of addressing carbon reduction and we welcome the improvement in fabric standards. That said, we think the standards could go further.

Q5 Do you agree with the proposed timings presented in Figure 2.1 showing the Roadmap to the Future Homes Standard?

- a. Yes
 - b. No - the timings are too ambitious
 - c. No - the timings are not ambitious enough
- If no, please explain your reasoning.

C. The proposed timings lack ambition. Delays mean houses will continue to be built to lower standards and are likely to require expensive retrofitting at a later date. Poorer performing homes will also be more expensive to run, putting a cost burden on householders. The Committee on Climate Change have stressed the urgency of ensuring that new homes are built to ultra-high levels of energy efficiency as a means of curtailing the contribution of the housing stock to the challenge of decarbonisation.

Part L Standards for New Homes in 2020

Q6 What level of uplift to the energy efficiency standards in the Building Regulations should be introduced in 2020?

- a. No change
- b. Option 1 - 20% CO2 reduction
- c. Option 2 - 31% CO2 reduction (the government's preferred option)
- d. Other

Please explain your reasoning.

D. We know that there needs to be a clear pathway to net zero carbon to enable the supply chain to prepare and adapt. However, a 31% reduction is not enough. As we've said before, we are in a climate emergency. The London Plan already requires a 35% reduction in CO2 with a 10% reduction in CO2 in the fabric alone. The government's preferred option therefore is a retrograde step. There is no excuse for limited ambition.

Q9 Do you agree with the proposal to set a minimum target to ensure that homes are affordable to run?

- a. Yes
- b. No

Please explain your reasoning.

A. Making sure homes are affordable to run is essential. This will encourage builders to consider the whole life costs of new homes, not just the build capex. Low carbon solutions could be unfamiliar to the general public to begin with: it is therefore important that more tangible advantages such as lower energy consumption and potential long-term energy costs savings are made clear.

Q10 Should the minimum target used to ensure that homes are affordable to run be a minimum Energy Efficiency Rating?

- a. Yes
- b. No

If yes, please suggest a minimum Energy Efficiency Rating that should be achieved and provide evidence to support this.

If no, please suggest an alternative metric, explain your reason and provide evidence to support this.

B. Energy efficiency ratings are a modelled metric. Any minimum target needs to be based on actual energy use, not modelled, in order to recognise and address the performance gap.

Q11 Do you agree with the proposed minimum fabric standards set out in Table 3.1? If you do not agree with any one or more of the proposed standards, please explain your reasoning and provide evidence to support this.

The fabric values provided in table 3.1 are not ambitious enough. The London Borough of Islington for example has been recommending and successfully realising fabric values of a higher standard

since October 2012. This is another example of how these new proposals will in fact be retrograde step for newbuild in London and other areas with higher energy standards.

Q13 In the context of the proposed move to a primary energy metric and improved minimum fabric standards, do you agree with the proposal to remove the fabric energy efficiency target?

a. Yes

b. No

If no, please explain your reasoning.

B. The fabric energy efficiency standard (FEES) must not be removed as there is a risk this will enable modern technology to mask poor building fabric performance. Instead we believe it should be retained and improved alongside higher fabric u-values.

Q18 Do you agree with the proposal that heating systems in new dwellings should be designed to operate with a flow temperature of 55 °C?

a. Yes

b. No - the temperature should be below 55 °C

c. No - dwellings should not be designed to operate with a low flow temperature

d. No - I disagree for another reason

If no, please explain your reasoning and provide evidence.

A. We agree that heating systems should be designed to operate with a low flow temperature. This will enable a wider range of energy sources to be used, for example as is being seen with fourth or fifth generation heat networks. However, excellent fabric standards are essential.

Q21 Do you agree with the proposal to adopt the latest Standard Assessment Procedure, SAP 10?

a. Yes

b. No

If no, please explain your reasoning.

B. We understand there are considerable issues with how SAP10 handles heat networks, including the way low grade heat, network losses, HIU losses and multi-phase networks are handled. This needs further investigation with the heat network industry.

Q25 Do you agree with the proposal to introduce the technology factors for heat networks, as presented in the draft Approved Document?

a. Yes

b. No - they give too much of an advantage to heat networks

c. No - they do not give enough of an advantage to heat networks

d. No - I disagree for another reason

Please explain your reasoning.

A. The introduction of technology factors is important to ensure the uptake and connection to heat networks, vital to achieving our decarbonisation pathway. The technology factors will add value to heat networks and help to make connection to heat networks more attractive to developers.

Q64 Do you agree Approved Document L should provide a set format for a home user guide in order to inform homeowners how to efficiently operate their dwelling?

a. Yes

b. No

If yes, please provide your views on what should be included in the guide.

A. We strongly believe in clear, open and transparent communications with householders. Helping them to understand how their new low carbon heating system works will be essential to its success to ensure that all our efforts do actually result in the modelled decarbonisation being achieved. Guidance on system use for householders will also help to reduce the performance gap.

Transitional Arrangements

Q65 Do you agree that the transitional arrangements for the energy efficiency changes in 2020 should not apply to individual buildings where work has not started within a reasonable period - resulting in those buildings having to be built to the new energy efficiency standard?

a. Yes - where building work has commenced on an individual building within a reasonable period, the transitional arrangements should apply to that building, but not to the buildings on which building work has not commenced

b. No - the transitional arrangements should continue to apply to all building work on a development, irrespective of whether or not building work has commenced on individual buildings

If yes, please suggest a suitable length of time for the reasonable period in which building work should have started.

If no, please explain your reasoning and provide evidence to support this.

On the whole, we agree with the transitional arrangements where new buildings have to comply with current standards, not the standards that were in force when planning was approved. The exception to this could be district heating networks. These are often designed and built with extra capacity so new buildings can connect at a future date. If these new buildings were subject to new building regulations, it might mean that they are either not allowed to connect or that the existing heat source at the energy centre would have to be replaced, regardless of its age or efficacy or of the costs this would entail.