elmhurst energy

Elmhurst Energy's final response to:

New Build Heat Standard: scoping consultation

Prepared for: Scottish Government

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1. Introduction

Elmhurst Energy are pleased that Scottish Government have published a consultation on 'standards for heating in new buildings' and as such we are delighted to respond to each question in turn.

The Consultation asked 17 questions and we have answered them all below. We hope you find the responses considered and useful for taking Energy Efficient Scotland forward in a progressive manner.

Elmhurst have answered the questions from a whole building approach; we are independent of fuels and technologies and therefore have abstained from direct question relating to evidence on particular technologies. We believe that all good proven technologies have a place to play in making Scotland's Buildings more energy efferent and using cleaner fuels.

2. Questions and Answers

1. Do you agree with the above key outcomes? Please explain your view.

Elmhurst agrees with the nine key outcomes for transitioning to zero direct carbon heating in new buildings. We have long advocated new buildings should achieve a balance of low energy use, low carbon emissions and low running costs via a fabric first approach. We also stress the importance of indoor air quality to the building occupier and advocate ensuring ventilation and energy efficiency in the Building Standards work together.

2. Are there any additional outcomes which should be embedded here?

We always advocated cost, carbon and energy are given equal prominence on all outputs from the calculation methodologies to drive the required outcomes e.g. building standards outputs and EPCs.

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3. Do you agree with limiting this Standard to 'new buildings' as defined within section 2.2?

As new buildings are easier to regulate against it makes sense to ensure this standard is applied to them. However the existing building sector still accounts for the majority of the emissions from buildings therefore we would must take action in this area as well through other regulations, incentives and policies.

4. Do you agree with: (a) our approach taken to require future installed heating systems to be zero direct emissions only, and (b) our approach taken to focus on direct/ point of use emissions that a building owner has responsibility over only?

We do not agree with this approach. We suggest you focus on the carbon intensity of fuels based on current figures, but also include the projected emissions figures as well. These figures should be updated regularly, e.g. annually, to prevent any 'gaming' of the system and also to ensure they are a fair reflection of the fuels as heating generation innovates in the future.

We also appreciate focussing on heat however we would like to ensure that other energy demands in buildings are also not forgotten. Energy use from hot water generation, ventilation, lighting and appliances will encapsulate a larger proportion of a buildings energy requirement than space heating in future due to the increasing fabric standards.

5. What evidence can you offer on ways of ensuring zero direct emissions from heating that could be compliant with this Standard?

Elmhurst would support using the outputs from accredited energy assessors using the existing, nationally recognised energy rating methodologies of SAP and SBEM.

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6. **What are your views on section 2.6, specifically regarding what mechanism the Scottish Government could use to ensure compliance with the Standard?**

Elmhurst would support using the outputs from accredited energy assessors using the existing, nationally recognised energy rating methodologies of SAP and SBEM, but with corrected and regularly updated carbon factors.

7. **What steps can the Scottish Government take to support industry to deliver this Standard, and how could we make compliance with this Standard easier?**

Elmhurst would recommend incorporating the compliance requirements into Section 6 of the Building Standards.

8. **How do we ensure that consumers are protected from increased energy bills, while giving developers flexibility to comply with the Standard?**

By ensuring a fabric first approach to construction of new buildings, this should reduce the energy demand significantly so that even high cost heating fuels such as electricity do not result in higher energy bills for the building occupier.

Further modelling should be carried out using the national calculation methodologies to ensure the fabric standards set in new standards result in lower fuel bills for occupiers.

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9. What are your views on new buildings connecting to an existing heat network, where development takes place within a heat network zone? Do you envisage any unintended consequences as a result of this proposal?

It must be ensured that a heat network cannot change its heating fuel in future to something that is more carbon intensive due to other outside pressures or fluctuating carbon factors. For example many heat networks are currently based on gas CHP systems, however in future iterations of SAP this may be seen as more carbon intensive than electricity, which previously was given a high carbon factor but has recently been classified as lower carbon than gas now. Also it should never restrict the builder to using a heat network where a lower carbon factor heating solution can be found.

10. Do you agree with the Scottish Government's proposal to introduce this Standard in 2024? What are your views on this Standard being brought into force for new buildings consented earlier than 2024?

Elmhurst agree that 2024 seems a reasonable timescale to prepare industry for this change. However we would advocate the next update to Section 6 of the standards is a meaningful step towards the 2024 standard.

11. How can opportunities be maximised for the supply chain involved in the delivery of new homes (ranging from product suppliers to on-site operatives), including skills?

By including this into the next update to Section 6 this will ensure a clear pathway to 2024 in terms of compliance. Energy assessors and builders can work together to find solutions to meet the requirements and this will give manufacturers opportunities to innovate and produce low carbon heating technologies.

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12. What do you envisage the key challenges would be for developers, and wider-building industry, in meeting this proposed Standard? How could this sector be supported to address those challenges?

The industry needs clarity on what Scottish Government want to achieve. Providing a simple route map with long term certainty will help industry build upon current methodologies and competent persons that exist. Once industry knows how to achieve this, they will adapt and innovate accordingly.

13. What are the key challenges for the energy networks regarding the deployment of zero emissions heating in new developments? How could this sector be supported to address those challenges?

No strong opinion

14. How do you see this Standard interacting with wider-energy system changes, and what role do you see for flexibility and smart technologies?

The national calculation methodologies need to be kept up to date with innovation and proven technologies. Much work has already taken place around this especially for SAP 11 and we must keep methodologies up to speed with any future innovations in this area.

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15. What can be done to encourage greater consumer awareness and understanding?

Elmhurst believe a building passport/logbook type system that stays with a building for its life would allow occupiers to understand how their building was constructed and operates. This should include advice on operating the building and its systems safely and efficiently.

Elmhurst would also encourage Scottish Government to move EPCs to an online platform as has happened in the other regions of the UK. This enables EPCs to be dynamic, and they can provide links to encourage consumers to find out more about their building.

Finally we would encourage incentivising energy efficient buildings so occupiers want to live and work in them in future. For example council tax reductions for high EPC bands.

16. What approach should be taken when considering new non-domestic buildings, and what are the specific challenges and opportunities relating to new non-domestic buildings?

No specific challenges.

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17. By introducing this Standard, what challenges or opportunities might result for households on low incomes (for example, around affordability or access), and how can the Scottish Government best take account of these?

Challenges would be the potential to increase fuel bills for using certain fuel types. We encourage not to focus solely on space heating, as in future domestic hot water and lighting are likely to be the higher energy demands in buildings.

Elmhurst believe there is an opportunity for undertaking of an occupation model once the building is occupied to enable occupiers to ensure their EPC is reflective of the actual occupancy of the building. Finally with the use of metered (in use) data working together with the asset rating (EPC) and occupation data, experts such as accredited energy assessors will be able to get a better picture of the buildings performance and then the occupier can focus on their own goals e.g. cost, carbon and/or energy reduction. This will eliminate the performance gap that currently exists between a buildings performance and its EPC.

If Government wants to pursue a certain goal, e.g. carbon reduction, then building occupiers should be incentivised to achieve this through good policy and if necessary financial incentives as their goal may be different for example lower fuel bills. It may not be possible to achieve low carbon, cost and energy efficiency for all buildings all of the time especially when considering all energy uses in a building e.g. hot water, lighting, ventilation, appliances etc.

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