

Energy Efficient Scotland: Consultation
FINAL response from the Energy Saving Trust

17 June 2019

Response submitted 17.06.19, response ID is ANON-JH4Z-5R1N-6

Pace of delivery

- 1. With regards to achieving an accelerated delivery of the standards proposed, do you think mandatory action for owner occupiers would be required? Please provide a rationale for your answer.**

All of our responses to the questions set out in the consultation document follow from the greatly increased urgent need for effective climate change policy, acknowledged by the Scottish Government in its recently revised emissions reduction targets. Our general position, in which all our answers are framed, is that the Scottish Government needs to press forward as fast as possible if these new targets are to be met.

Yes, with regards to achieving an accelerated delivery of the standards proposed we think that mandatory action for owner occupiers would be required. Owner occupied homes with an EPC below C make up a significant proportion of Scotland's housing stock and total 930,000 dwellings. The consultation document itself suggests that maintaining the current rate of homes achieving EPC Band C would be *'approximately in line with an even delivery path to the 2040 target'* but that *'without further stimulus it is likely that the rate of homes achieving EPC Band C will drop below the rate we've seen in recent years as the number of 'easy wins' diminishes'*. It also notes that even with regulation at the point of sale there will still be *'a backlog of dwellings needing to be upgraded in 2040, even if regulation begins in 2025 instead of 2030'*.

It is clear therefore that neither business as usual existing approaches nor business as usual existing approaches *plus* regulation at the point of sale will be sufficient to ensure the delivery of the proposed EPC C standard in all homes by 2040 let alone by 2030.

This suggests that while regulation is clearly required to drive up minimum standards and to ensure that as many households as possible are brought up to an EPC C standard there is also a clear need for the Scottish Government to significantly ramp up the support it provides to the owner occupier sector as soon as possible (before any regulatory requirements kick in) to ensure that business-as-usual rates of voluntary improvement are not only maintained but increased considerably. This is important because the more successful the voluntary approach the less need there will be for regulation to apply extensively and regulation is unlikely to be popular.

The analysis presented in the consultation document (and referenced above) together with the Scottish Government's most recent commitments on climate change – specifically that Scotland is carbon neutral by 2040 - imply the need for regulation to begin to apply in the relatively near future (i.e. at least from 2025) and that is our view.

2. What trigger points, e.g. sale, renovation, etc. could be used to require owner occupiers to undertake energy efficiency improvements?

We agree that standards will need to be applied at different trigger points. The point of sale is an obvious trigger point for owner occupiers to undertake energy efficiency improvements. Improvements could either be undertaken by the seller before the sale of the property or the requirement could be passed on to the buyer who would need to undertake the necessary improvements within a determined period of time. However, as noted in the consultation document *'over a ten year period a requirement for improvement triggered at the point of sale would only capture around a third of the stock falling below EPC Band C' and will 'still leave a backlog of dwellings needing to be upgraded in 2040, even if regulation begins in 2025 instead of 2030'*. There is therefore a need to use additional trigger points to require improvements. We believe that these should include:

- When properties are extended
- When properties are renovated
- When there is a change of building use
- Where a boiler or heating system is replaced

We also think that further consideration needs to be given to trigger points for energy efficiency works to common areas of flats (noting that the common areas may include e.g. external walls where insulation is most readily applied). Regulation could for example include:

- Require works to communal areas of flatted buildings at certain points e.g. when area based schemes offer support and when fuel poor residents would otherwise not benefit from improvements etc.
- When the tenement co-owners are undertaking other whole building actions – e.g. structural works or roof repairs.
- Where more than half the EPCs for the flats in the building have a rating below D.

Time-based trigger points (i.e. requiring properties to be improved by a certain date) could have an important role to play here too and consideration should also be given to whether or not a backstop date for meeting standards in the owner occupied sector is a workable option.

As we noted in our response to the SEEP consultation in May 2017 trigger points are increasingly being recognised across Europe as an *'effective tool to drive deep renovation'*¹ and a number of countries (e.g. France and Germany) are using trigger points in this way. There is a compelling logic to this - if the worst performing homes are brought up a slightly better standard they will simply be the worst performing homes of the future, if they are brought up to a much better standard they will remain better performing homes for many years to come. This approach is in contrast to Scotland's proposed approach to use trigger points to drive up minimum standards. We think that there would be merit in exploring how trigger points could be used to drive deep renovations in Scotland's housing stock. Pilot work, with certain groups, could be undertaken, alongside the introduction of minimum standards at certain trigger points, to explore how deeper renovations at these points could be encouraged.

3. If you think mandatory action would be required to achieve an accelerated delivery of standards, when should mandatory energy efficiency targets be introduced for the owner occupied sector? Should they be introduced before 2030?

¹ See for example: http://bpie.eu/wp-content/uploads/2017/05/Factsheet_B-170511_v4.pdf

As detailed in our response to question 1 above we think that mandatory action will be required to achieve an accelerated delivery of standards. If the Scottish Government is minded to accelerate delivery such that a target is set for all (or the vast majority) homes to reach an EPC band C by 2030 then it will be vital to introduce mandatory energy efficiency targets for the owner occupied sector well before 2030.

It will also be important that householders are made aware, as soon as possible, that regulation is coming! As we have noted in previous consultation responses, a long lead-in time for regulation will be important to allow regulatory shadow to influence people to volunteer before they have to be coerced. It will therefore be important to communicate as soon as possible to the private sector that regulation is on its way, what the standards will be, how these will rise over time, when they are likely to apply, how they can be met, as well as making them aware of the help and support that will be available to them. As well as influencing people before they have to be coerced this would also help to ensure that people are able to go beyond initial regulated standards should they desire.

As noted in our response to question 1 above the analysis presented in the consultation document (and referenced above) together with the Scottish Government's most recent commitments on climate change – specifically that Scotland is carbon neutral by 2040 - imply the need for regulation to begin to apply in the relatively near future (i.e. at least from 2025). If regulation is to apply from 2025 we believe that a 5-year period of 'regulatory shadow' would be appropriate to allow people to act before it is required. This means regulatory plans would have to be at least announced by 2020. As we have noted in previous consultation responses the more successful the voluntary approach the less need there will be for a more extensive regulatory approach and as such every effort should be made to maximise energy performance improvements to homes in the period between 2020 and 2025 to ensure that the number of homes to which regulation need apply is as small as possible. This period should therefore be used by the Scottish Government to significantly ramp up the support available to householders to improve the energy performance of their homes, including piloting new approaches in the owner occupied sector and developing appropriate communications campaigns.

As the Scottish Government has noted, in this and earlier consultations, it will be important that regulatory requirements are linked to affordability for the householder.

Impact of pace on supply chain

- 4. From a supply chain perspective, do you think bringing forward the timescale for the Programme would have a positive or negative effect on quality, skills and capacity and consumer protection? Please provide a rationale, and evidence where possible.**

There appears to be conflicting evidence, from a supply chain perspective, about whether bringing forward the timescale for the Programme would have a positive or negative effect on quality, skills and capacity and consumer protection. On the one hand, the Energy Saving Trust has feedback that suppliers have provided through the Scottish Government's Sustainable Energy Supply Chain Programme that the supply chain needs sufficient time to grow both their capacities and capabilities. This is an industry with an ageing workforce and it is therefore important to get young people interested in energy efficiency which may take time. On the other hand, the Existing Homes Alliance has evidence from a survey of the supply chain which suggests that the supply chain is prepared to deliver to an accelerated timescale.

We therefore believe that further research is urgently needed to comprehensively look at the ability of the supply chain to deliver to an accelerated timescale. This should also consider the extent to

which different interventions could help to boost supply chain growth, as we do not believe that given the urgency of action, supply chain issues should be allowed to be a limiting factor

Impact on fuel poverty and climate change

5. In your view, how would accelerating Energy Efficient Scotland help, and/or how would it hinder, plans to address fuel poverty?

The consultation document makes a number of suggestions about how accelerating Energy Efficient Scotland could hinder plans to address fuel poverty. Specifically, it notes that:

- *'Accelerating the target for all homes may risk increasing levels of fuel poverty by forcing households to install low carbon or renewable technologies that may be more expensive to run – therefore increasing fuel costs and before the cost of the technologies have been further driven down by innovation in the sector'.*
- *'Bringing this target forward to 2030 would support efforts to reduce emissions more quickly. However, it risks forcing some households to take decisions about their heating systems prematurely, which may result in stranded assets or households having to make multiple changes to their heating systems over the next 20 years'.*

The first statement suggests that low carbon or renewable technologies may be more expensive to run. This should not always be the case. Heat pumps are significantly more efficient than heating systems that run on fossil fuels and as such, if installed in a well-insulated home and if used appropriately they will often result in lower not higher running costs depending on fuel prices at any point in time. This highlights the importance of taking a whole house approach to retrofit and the importance of consumer advice and support to ensure that people are aware how to effectively and efficiently use their new heating systems. There will however be, as the consultation document points out, cases where a renewable heating system may be more expensive to run than the system it is replacing. Given the Scottish Government's challenging greenhouse gas emissions reduction targets it will be necessary to install low carbon heating systems in all of Scotland's homes – this is not debatable. However, clearly it is not acceptable for any Scottish Government requirements around heating systems to result in bill increases for the fuel poor. We therefore think there is a need for further analysis in this area and consideration needs to be given to the support (including financial support) that could be provided to help avoid situations where householders are significantly financially disadvantaged as a result of installing a low carbon heating system.

The first statement also makes reference to the fact that there is scope for the costs of the technologies to be *'further driven down by innovation in the sector'*. However, it does not acknowledge the important consideration that it is reasonable to expect that costs will also be driven down by economies of scale.

In terms of the second statement – we do not believe that anyone should be 'forced' to take decisions about their heating systems prematurely. As long as regulation for heating systems is linked to replacement cycles and there is sufficient notice given about when regulation will commence from significant numbers of heating systems should not be required to be replaced prematurely. Indeed, we believe that the likelihood of stranded assets for households installing high carbon systems is likely to be significantly greater than for households installing low carbon systems.

6. With regards to reducing the emissions associated with the supply of heat, what are your views on consideration of energy efficient improvements alongside changes to heating systems?

We believe it is essential for consideration of energy efficiency improvements to be made alongside changes to heating systems. Reducing heat demand is a key aspect of decarbonising heat. Not just because using less energy results in fewer emissions (and lower fuel bills), but also because heat pumps work more efficiently in a well-insulated property. Heat pumps in particular benefit from energy efficiency measures; heat pumps perform more efficiently when providing lower temperature heat, which becomes more viable in high efficiency homes. High efficiency will also mean reduced impacts on the electricity network from electric heating and thermally efficient homes are more easily heated to a comfortable level at affordable cost.

In addition, a more efficient home will have a smaller heating demand and therefore will be adequately served by a smaller and therefore cheaper to purchase heating system.

Private rented sector

7. What are your views on using change of tenancy as a trigger to require the increased standard?

We think that using change of tenancy as a trigger to require the increased standard of EPC C is appropriate and support the intention that the EPC band C standard will initially apply to properties where there is a change in tenancy and later apply to all private rented properties.

8. What are your views on using 1 April 2025 as the date to start applying the minimum standard of C when there is a change in tenancy?

We strongly support the Scottish Government's proposal that *'the EPC Band C standard will initially apply to properties where there is a change in tenancy after 1 April 2025'*.

As we have noted in our responses to earlier Scottish Government consultations setting out such longer term targets (in this case when the EPC Band C target will apply) now will not only provide certainty for landlords to plan improvements and to make use of the support that is currently on offer to improve the energy performance of their properties, it will also ensure that landlords are able to make the most appropriate decisions about what measures to install in their properties. This is because the cost of meeting any future standard will depend on the pathway taken to reach that standard. Without a sense of what future standards will look like it will not be possible for landlords to take the most efficient and cost effective pathway to reaching that standard.

It will also provide more certainty to the supply chain who, with such commitments in place, will also be able to better plan and invest in the growth in the market which will result– in this case by ensuring they have sufficient numbers of trained staff ready to undertake work to meet regulated standards.

It will also allow landlords to, should they wish, move directly to this standard (as opposed to taking an incremental approach). Doing so would have a number of advantages including:

- **Less disruption for landlords and tenants** as properties would just need to be improved once (as opposed to two or three times).
- **A reduction in the amount of enforcement work for local authorities.** This is because having an initial standard, a more challenging one at a later date and an even more challenging one presents 3 opportunities for non-compliance for some properties instead of just one.
- **More significant improvements would be made more quickly.** Improving F and G rated properties to a C saves both more carbon and more money on fuel bills more quickly than improving them to an E and at a later point to a D and then to a C. This is important given the Scottish Government's commitment to eliminating energy inefficiency as a cause of fuel poverty and tackling climate change.

- **Upgrading directly to a C will also help to start to narrow the gap between energy efficiency standards in social housing and in the private rented sector** – by 2020 properties in the social rented sector will be required to have the equivalent of a minimum EPC energy efficiency rating of C or D depending on its built form. It is important that no matter what sector someone has to rent in or chooses to rent in they are able to heat that home affordably. It is also important that all parts of the housing stock make significant contributions to emissions reductions.

We note that the period of time between the application of the minimum standard at change of tenancy and the backstop date (i.e. the date when all properties will need to meet the standard) for the EPC standard is 5 years as opposed to the 2-year period for the EPC E standard and the 3-year period for the EPC D standard. Given the more challenging nature of the EPC C target we think this period of time is appropriate. However, because the Scottish Government's carbon targets are very demanding, it will also be important for the Scottish Government to build on and expand the support they already provide to landlords and actively support as many landlords as possible to get to a C earlier than the mandatory point.

We also note that a significant proportion of privately rented properties are flats. A considerable amount of additional work is required to determine the role that building level action could and should play in meeting energy efficiency standards in these properties and again this is important if carbon targets are to be met.

9. With regards to providing a useful tool to landlords planning and executing improvement works, what are your views on basing any cap of required works on a definition of cost-effectiveness and technical feasibility?

We agree with the principle of basing any cap of required works on a definition of cost-effectiveness and technical feasibility.

As we have noted in previous consultation responses we do not believe that cost effectiveness should be too narrowly defined and should take into account the broader social benefits of energy efficiency investments. While new technologies and learning rates will lead to new cost-effective options, with the current mix of measures available for Scottish homes, we have already installed a large proportion of the most individually cost-effective energy efficiency measures. New analysis² by leading academics has shown that around a quarter of the remaining technical potential for energy efficiency in UK homes is individually cost-effective (i.e. calculated on the basis of energy savings to households), and half is socially cost-effective (i.e. calculated on the basis of energy savings to households and taking into account broader social benefits)³. We therefore suggest a more nuanced approach to this aspect of the standard. For measures that are socially - but not individually – cost-effective our view is that it is reasonable to expect home owners to install the measure(s), paying for the measure up to the point

² Rosenow et al., 2018, The remaining potential for energy savings in UK households, Energy Policy, Volume 121, Pages 542-552, see: <https://t.co/MFZjs9x0so>

³ Note: The assessment of 'socially cost-effective' in the analysis is in line with the Treasury rulebook for policy appraisal (in addition to energy cost savings: emissions reductions, air quality benefits and comfort). There are additional social benefits that have not been included in the definition of cost-effectiveness. These additional benefits, plus falling equipment costs, would both serve to increase the share of technical potential that is both privately cost-effective and socially cost-effective.

which pays back for their home and being required to take advantage of any public support that is available to cover the remainder of the cost (in other words the cost of the measure is socialised to the extent that it is cost effective socially but not individually).

The analysis that we undertook in summer last year to feed into our response to the EES consultation (using then current costs for measures and resulting energy bill savings) suggested that solid wall insulation would not be individually 'cost effective' for gas and oil properties and for smaller LPG/coal properties. Nor would double glazing, some boiler upgrades and in many (but on all) circumstances microgeneration. We note that based on bill savings plus RHI payments all microgeneration heating systems (except solar thermal) are individually cost effective (in that they pay back over their lifetimes). Thus, the availability of the RHI is important – and is an example of how costs can be socialised. Also of relevance here is some recent analysis that we have undertaken which calculates how long it will take to pay back the installation cost of solar PV panels using early Smart Export Guarantee-type offers as an indicator of future rates. Our calculations show that for some people, the Smart Export Guarantee (SEG) will make installing solar power an acceptable investment. However, for most, installation will remain an environmental rather than a financial decision⁴.

Without a more nuanced approach together with government subsidy not only will considerable opportunities for carbon emissions reductions and fuel poverty alleviation be missed but wider societal benefits will not be realised. It is also worth emphasising here that microgeneration heating systems are unlikely to become individually cost effective without mass market uptake and associated economies of scale. Ongoing subsidy or targeted regulation will therefore be essential if microgeneration is to become individually cost effective.

Impact on supply chain: skills and capacity

Considering the recommendations made by the Quality Assurance Short Life Working Group:

10. The Short Life Working Group have made recommendations which they believe represent the actions required to ensure that Energy Efficient Scotland will achieve consistently high levels of quality, health and safety and consumer protection. Do you agree? If not, what more or less should be done?

We very much welcome the publication of the Quality Assurance Short Life Working Group's report. We would like to use our response to this question to reiterate the importance of monitoring and enforcement of energy efficiency installations. Historically there has been a considerable focus on the front end of quality (e.g. a company has a specific certification). However, there has not been as much focus on the back end of quality (i.e. checking that installers have done what they are meant to have done). Certification in itself does not guarantee quality and the importance of monitoring and enforcement should not be underestimated.

11. Do you have any views on how this can be achieved whilst at the same time ensuring maximum participation from suppliers across Scotland regardless of their size and geographical location?

We believe that consideration should be given to setting up a central body to undertake the vetting and verification of suppliers wishing to participate in the Energy Efficient Scotland programme. This

⁴ For further information please see: <https://www.energysavingtrust.org.uk/about-us/news/solar-installation-payback-possible-smart-export-guarantee>

body could also host the Directory of suppliers and coordinate all of the monitoring and enforcement for the Programme.

We also believe that the Scottish Government should work towards ensuring that procurement processes and documentation are made more SME friendly particularly for micro-sized businesses by providing guidance to local authorities and other buyers.

We also note the success of the Warmer Homes Scotland model in terms of delivering extremely high levels of quality and customer satisfaction and a similar approach may also provide options for future programmes

12. What do you think the role of the Scottish Government should be in ensuring the quality criteria are consistently met?

We believe that the Scottish Government has a vital role in ensuring the quality criteria are consistently met, specifically:

- The Scottish Government should intervene where there is market failure. If the market cannot deliver sufficient quality, then there is a role for government to intervene.
- The Scottish Government's existing work with industry plays an important role in helping to drive up standards.
- The Scottish Government also has an important role to play in setting out key timescales, objectives and the outcomes they want achieved – providing much needed confidence to industry so it can and will invest in quality.

Finally, we believe it will be important for the for Scottish Government outline its position on PAS2035. This is important as it will avoid unnecessary confusion for the supply chain and customers alike.

Heat Networks

13. Taking the above into account, what further incentives could drive further heat demand onto networks?

In terms of incentives we believe there is a need for:

- **Ongoing provision of public subsidy.** We see a continued role for the District Heating Loan Fund (DHLF) which is run by the Energy Saving Trust on behalf of the Scottish Government. To date the scheme has funded 47 projects through provision of £11M of loan funds. At this stage of market transformation in Scotland, when district heating isn't well known to mainstream lenders, this type of support together with that of grant support for certain projects with a weaker business case remains important. It is also important that loan rates and repayment terms are regularly reviewed in light of market conditions.

14. Taking the above into account, what further assistance could support the growth of approximately-sited, low carbon heat networks?

The following measures could further support the growth of appropriately-sited, low carbon heat networks:

- **The development and dissemination of a common procurement framework.** The district heating sector is still developing and projects are complex and bespoke and usually involve a wide range of stakeholders, many with relatively little experience of the technologies

involved. This includes importantly those commissioning and procuring projects and as such having a common procurement framework that housing associations, local authorities and others could use would help to ensure that good quality networks are procured to an acceptable standard.

- **Building customer confidence.** One of the key ways that the Scottish Government could build customer confidence would be to introduce, as currently proposed, a legislative framework for district heating in Scotland. This would help to ensure that customers are treated fairly and that customer service standards are high (at a minimum, no worse than any other utility). The fact that district heating networks are currently operated as supply monopolies means that, if district heating does not become regulated, there is a considerable risk that a fragmented approach with no quality control could have potentially negative impacts for consumers. As such, we believe that a framework including licencing the provision of district heating has a key role to play in helping to build confidence and credibility in heat networks.
- **Ongoing provision of informed expert support** such as that currently provided by the DHLF programme team. This includes assessing applications, undertaking project appraisals, instructing technical and financial due diligence and ongoing risk monitoring of projects. Additional support and guidance is also provided by an expert advisory panel. This kind of support is essential because (as noted above) the district heating sector is still developing and projects are often complex and bespoke. In addition to project support the Home Energy Scotland specialist advice service now provides advice to householders both currently 'on' and thinking of connecting to heat networks.
- **Building up the supply chain.** Training and 'upskilling' of local contractors will not only help to ensure that heat networks are properly maintained, but it will also greatly reduce the costs for building out the heat networks. As the UK market is undeveloped a significant 'risk premium' is often added to project costs. We also believe that training centres/skills academies have an important role to play.
- **Zoning.** Allowing 'concessions' for good quality schemes to operate within certain allocated zones where district heating is cost effective will help to stimulate investment in heat network infrastructure and 'de-risk' projects for potential developers and operators.