

Energy Saving Trust response to the Scottish Government's consultation on  
their draft Heat in Buildings Strategy – Achieving New Zero Emissions in  
Scotland's Buildings Consultation



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# 1. A 2045 Pathway for Scotland's Homes and Buildings

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## 1. To what extent do you support the pathway set out for achieving the 2045 net zero target and the interim 2030 target?

Energy Saving Trust broadly supports the pathway set out for achieving the 2045 net zero target and the interim 2030 target.

We very much support the Scottish Government's intention for energy efficiency to remain at the "core" of their heat in buildings policies and programmes. Energy efficiency is the most effective long-term guarantee of a housing stock that uses less energy (and is therefore responsible for fewer greenhouse gas emissions). Energy efficiency 'locks in' energy saving and makes dwellings cheaper to heat (because less heat is needed) and more comfortable to live in. Energy efficiency improvements also reduce system costs as there is less demand (than would otherwise be the case) on the grid. In addition, 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.

We are also very supportive of the commitments that:

- By 2030 around 50% of homes or over a million households will have converted to a zero or low emissions heating system.
- By 2030 at least at least 1 million homes currently using mains gas will have converted to zero emissions heating.
- By 2025 zero emissions heating systems account for at least 50% of replacement installations each year.

Having these specific commitments should help to drive focussed action on the ground and help to ensure that the rate of adoption of low and zero emissions heating systems is in line with the levels necessary to ensure that Scotland meets its climate change targets. Such commitments also provide a signal to the supply chain which will go some way towards providing the certainty to invest in the development of their staff, to recruit more staff and grow their businesses. However, as discussed in more detail in other parts of this response we believe there is still scope to provide greater certainty to the supply chain, with, for example the provision of greater detail around some of the key drivers of demand (e.g. regulation).

While we support the existence of the commitment for “*all homes to meet a minimum standard equivalent to an EPC C at least, where technically feasible and cost effective*” we believe that this should be met by 2030 as opposed to 2035. The CCC have already emphasised concerns about how rapidly decarbonisation can be achieved noting that “*The rapid emissions reductions required for a 75% reduction by 2030 may not be feasible without extreme implications for cost and/or required changes in behaviour*” – it is therefore important that the Scottish Government does all it realistically can by 2030 – and bringing all homes up to minimum standard equivalent to an EPC where technically feasible and cost effective is something that we believe can realistically be done by 2030.

We also welcome the Scottish Government’s commitment for “legislation and standards for zero emissions heating and energy efficiency in existing buildings to be introduced (where it is within the Scottish Government’s legal competence)” between 2023 and 2025.

While we support the Scottish Government’s intention to require new buildings to use zero direct emissions heating and also feature high levels of fabric energy efficiency, we think that the Scottish Government should bring this standard into effect earlier than 2024. If the standard is brought into force as proposed for new buildings consented from 2024 it would result in buildings being built to 2021 standards (assuming new energy standards are introduced in 2021 as proposed) in 2027. This would not be consistent with advice from the CCC who recommend<sup>1</sup> that by 2025 at the latest “*no new homes should connect to the gas grid*” and “*instead should have low carbon heating systems such as heat pumps and low-carbon heat networks*”.

## **2. What are your views on any risks of unintended consequences from this pathway?**

As noted above we welcome the Scottish Government’s commitment for “legislation and standards for zero emissions heating and energy efficiency in existing buildings to be introduced (where it is within the Scottish Government’s legal competence). One of the key risks from this pathway is related to the uncertainty surrounding the Scottish Government’s legal competence. If the Scottish Government doesn’t have the legal competence to legislate in the way that it wants (and that is necessary) this could have implications for its ability to deliver the levels of action necessary to meet targets.

There is also a risk that fuel bills increase, particularly in the transition period. There will be some 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

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<sup>1</sup> See: <https://www.theccc.org.uk/publication/uk-housing-fit-for-the-future/>

for the fuel poor. We support the Scottish Government's proposals outlined in chapter 3 to mitigate this risk. This is discussed in more detail in our response to questions 18 and 19 below.

Another risk relates to stranded assets. It is important to consider that heating systems are systems that are *replaced* on a regular basis and as such it will be important for any phasing to tie into replacement cycles. Not doing so would risk householders having to replace their heating systems before the end of their lifetimes. This would not be in the best economic interests of the householder nor would it be popular. In this context it will also be important that people are given sufficient notice about any forthcoming regulation.

### **3. What are your views on our assessment of strategic technologies in low and no regrets areas to 2030?**

Energy Saving Trust supports the Scottish Government's intention to accelerate and scale up the deployment of tried and tested measures where they are known to be no or low regrets. As noted in our response to question 1 above energy efficiency is the most effective long-term guarantee of a housing stock that uses less energy and one that is therefore responsible for fewer greenhouse gas emissions and we therefore welcome its inclusion as one of the no and low regrets strategic technologies. We also welcome the inclusion of heat pumps and heat networks as no and low regrets strategic technologies.

One other technology that we think would merit consideration in the Scottish Government's assessment of strategic technologies is heating systems that support decarbonisation through increased flexibility of electricity use – for example, smart high retention storage heaters running on time-of-use tariffs. It is important to note however that heat pumps or heat pump powered district heating should be the default options and other electric heating should only be considered where these are inappropriate or unavailable.

### **4. What function should a new heat target serve?**

Energy Saving Trust supports the Scottish Government's proposal to set a new heat target for Scotland. The function of a new heat target should be to drive focussed action (i.e., if there is a target it is possible to make concrete plans) so that Scotland achieves its climate change targets. As the consultation document notes a new heat target would also "*provide the certainty needed to individuals, businesses and communities and the wider supply chain*" and we strongly support such certainty as necessary to unlock and drive the necessary investment by the supply chain to reach the targets set by the Scottish Government. We also note that having a target makes it easier to raise awareness and increase understanding of what is happening and when amongst both the wider public and stakeholders. As the consultation document notes, it is important

that any new target aligns with the deployment pathway for reducing emissions in buildings and drives the necessary level of emissions reductions.

The consultation document emphasises the importance of ensuring that any new target is “consistent” with Scotland’s statutory fuel poverty targets. It is difficult to see how climate change targets – which focus on greenhouse gas emissions reductions which require investment in property upgrades and can, in some circumstances, result in fuel bill increases (based on current fuel tariffs) can be fully consistent with fuel poverty targets – which focus on the affordability of keeping homes warm. However, we believe that both targets can be “considerate” of each other and this should be reflected in the wording of the final Heat in Buildings Strategy.

We think it will be important that any new heat target provides a greater level of sectoral granularity than the existing target. This would provide an increased ability to plan in each sector and therefore provide greater certainty that the sectoral and thus overall heat target will be met.

**5. How do you think a new heat target should account for the need to deliver against our statutory fuel poverty targets?**

The implications of an individual measure for carbon reduction and for fuel bills varies from property to property, and it is not possible to define a renewable heat target in such a way that the risk of increased bills is removed. It will be important that mechanisms to avoid bill increases are included in the regulatory and support mechanisms that are developed to achieve the target.

**6. Do you agree that a new heat target should apply to heat in buildings, distinct from industrial heat?**

Yes, Energy Saving Trust agrees that a new heat target should apply to heat in buildings, distinct from industrial heat. We also think that it will be important that the Scottish Government continues to, as proposed, report progress against the existing metric – total non-electrical heat demand met by renewable heat, both for comparability reasons and to continue to drive fuel switching in all sectors.

We believe there would be merit in limiting this sub-target to heat in domestic buildings, or to have separate domestic and non-domestic building targets. This is partly because the mechanisms required to drive change in the two sectors are different, but also there are specific issues in measuring renewable heat supply in non-domestic buildings that do not apply in the domestic sector. We would therefore be more confident in the accuracy of monitoring against a domestic heat target than a broader buildings target.

## 7. What form should a new heat target take and why?

As mentioned above, we would like to see continuation of the overarching existing target, with a sub-target for domestic buildings, and perhaps one for non-domestic buildings. However, there are multiple ways to define renewable heat, and this creates a risk that a generally worded target could drive a strategically inappropriate mix of technologies. We therefore think it is important to include at least some technology specific installation targets. This would have the additional benefit of giving the supply chain sufficient certainty and thus confidence to invest in the expansion required.

The Climate Change Committee emphasise that electrification is likely to remain the primary route to the decarbonisation of buildings and note that this will require the installation of significant numbers of heat pumps.

**We therefore think that annual installation targets for domestic heat pumps would play a vital role in driving decarbonisation in buildings.**

Having targets for deployment rates for particular technologies will help to drive focussed action on the ground and help to ensure that the rate of adoption of low and zero emission heating systems is in line with the levels necessary to ensure that Scotland meets its climate change targets.

While it would be possible to introduce installation targets for other low carbon heating options (i.e., heating options other than domestic heat pumps), there is currently insufficient clarity on the relative importance of different technologies to justify strategically relevant targets.

We also note the accuracy of renewable heat figures for Scotland in current reporting is largely dependent on access to UK Government data sets and would like to emphasise the importance of continuing access to these.

## 8. At what level should the target(s) be set and for what date?

We think that targets should be annual and should be in line with the Scottish Government's existing ambitions in this area, namely that renewable heat installations in new and existing homes and buildings should double every year *"from a current baseline of 2,000 domestic installations per annum in 2020 to 64,000 homes fitted in 2025 – a cumulative total of around 126,000 homes"* and that *"a peak installation rate of 250,000 homes per annum in the 2030s is expected"*.

Our analysis suggests that an annual doubling of installations in existing homes is possible for heat pumps and as such we think that that this target (an annual doubling to 2025 and annual increases consistent with a peak installation rate of quarter of a million homes per year in the 2030s) should relate specifically to heat pumps.

It is important to note that these doublings should represent an absolute not a relative target and pathway. If a doubling of installation rates is not achieved in any given year then additional effort will be required to ensure that the following year's target is met. It should not be the case that the target for the following year is double the achieved outcome of the previous year if the target was not met in the previous year.

**9. What are the most significant actions we can take to ensure that Scotland's people and organisations are meaningfully engaged in the net zero heat transition?**

We very much support the prominence given, within the draft Heat in Buildings Strategy, to the role that people will play in the transition to net zero heat and therefore welcome the assertion that *"People must be at the heart of this transition"*.

We also support the Scottish Government's commitment to *"develop and begin implementing a bespoke public engagement strategy for heat in buildings"* and are particularly pleased that one of the three areas it will focus on is *"promoting the support that is on offer from both the Scottish and UK governments to maximise uptake over the 5 years of this strategy"*. Indeed, if engagement is to be meaningful and people are to act as a result it will be vitally important that they know what action they can take and what support is available for them to do so. Available evidence suggests that not only is there low general awareness amongst the population of the need to improve the energy efficiency of their homes and to switch away from conventional heating there is also very low awareness of how people can take action and where to go for information and advice. In this context we believe there is considerable scope to undertake significant additional marketing activity to raise awareness of, and steer people towards, the Scottish Government's Home Energy Scotland service which provides high quality, impartial, tailored information and advice to support people to take action to improve the energy performance of their home, to reduce their energy bills, to travel more sustainably and to use water more efficiently. Such activity will need to be sustained over many years to achieve sufficient reinforcement of messages and the cut-through required to reach hundreds of thousands of people.

The Scottish Government's Home Energy Scotland advice network has a vital role to play in ensuring that people are meaningfully engaged in the net zero transition. Home Energy Scotland provides a 'one stop-shop' which supplies personalised information and advice on energy efficiency, affordable warmth, low and zero emissions heating systems and other domestic renewables to very large numbers of customers, making it easier for them to act to save energy, money and carbon through changing their buying and usage behaviours and via referrals to schemes such as Home Energy Scotland loans and the Energy Company Obligation (ECO). Home Energy Scotland also provides in depth support to householders on low and zero emissions heat technologies, other domestic



renewables and more complex energy efficiency improvements through in-home visits by specialist advisers.

The network integrates the core Home Energy Scotland service and these various other activities to provide a simple, seamless and comprehensive customer experience which is key to engaging Scottish householders and delivering Scottish Government policies. It is a crucial part of the infrastructure needed to achieve the delivery of Scottish Government sustainable energy policies and the overall pathway to net zero greenhouse gas emissions by 2045, including the transition to low-carbon heat. By working in partnership with other organisations such as health and social care organisations to build referral pathways for vulnerable householders Home Energy Scotland is able to engage with people that might not otherwise be reached. While the majority of householders contact Home Energy Scotland through the well-publicised freephone number, online or through outreach activity, a substantial number are referred to Home Energy Scotland from other organisations who have access to and are trusted by vulnerable householders. These organisations are able to make seamless referrals to Home Energy Scotland using an online portal which works in real time to put the householder's details directly into Home Energy Scotland's database for advisors to follow up.

It is essential that the Home Energy Scotland advice and specialist advice functions are not only retained but are scaled up to support more householders. We therefore very much welcome the commitment that the Scottish Government will *“invest in growing our advice services so that they continue to meet the needs of the Scottish public. This includes improving our digital presence and extending the support on offer to provide more in-depth support for installing zero emissions heating systems”*.

Ideally people should be engaged well before they start considering a replacement heating system so that they know that their next heating system is unlikely to be the same as their existing one, in the same way people know that come 2030 they will only be buying a new electric car. This means that their expectations are set and some may even start doing research before the point at which they have to switch. Engaging with people at this point is also likely to increase the likelihood of switching before the old systems break down completely, thus helping to accelerate the transition.

Other key points at which it will be necessary to engage with people are the point at which they are considering a replacement heating system whether as a planned upgrade or a distress purchase, the point at which their system receives an annual maintenance check, and the point of heating system repair. Clearly a key way of engaging with consumers at these points is through the heating system engineer. Recent market

research carried out in 2021 to inform promotional campaigns for Home Energy Scotland underlines the trust that people have in installers, with almost 90% of people saying that confidence in their installer was one of the primary aspects of importance when choosing to use a new system with a different type of technology. It is therefore important that any training provision includes advocacy and engagement skills to enable heating professionals to discuss different heating options as well as the benefits of low and zero emissions systems when undertaking maintenance checks, repairs and when quoting to replace an existing system and the role they can play in signposting people to sources of independent, impartial advice.

Energy Performance Certificates (EPCs) have become an accepted part of housing transactions by the public and as such have an important role to play in ensuring that Scotland's people are meaningfully engaged in net zero heat transition. However, for this to happen it will be important that amendments are made to the basis that EPCs recommend measures such that greater prominence is given to low and zero emissions heating systems. In addition, it will be important to continue to link EPCs with impartial sources of information and advice for further guidance. This will increase engagement with home buyers at a key trigger point. In this context it is worthwhile noting that Energy Saving Trust are partners in an EU funded project called X-tendo which is reviewing best practice in the use of EPCs across Europe and generating recommendations and proposals for the future use of EPCs particularly their role in relation to advice and recommendations.

## 2. People

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**10. What in your view are the opportunities, if any, available to key organisations, such as local government, businesses and trade associations and community or other non-government organisations, in supporting this public engagement activity?**

It will be important for local authorities, as part of their work to deliver their local heat and energy efficiency strategies (LHEES) to work in partnership with Home Energy Scotland to engage with people about what is going to be happening in their area (including planned district heating schemes) and what this means for them.

Local community groups also have a role to play as a route to engagement with residents in their area. This role could extend to directly helping homeowners to make changes e.g. helping organise bulk procurement of heat pumps to bring down prices and generate confidence by being one of many taking action.

**11. In your opinion, could any of the proposals set out in this strategy unfairly discriminate against any person in Scotland who shares a protected characteristic? (age, disability, sex, gender reassignment, pregnancy and maternity, race, sexual orientation, religion or belief).**

We work with the Scottish Government to ensure that the programmes we deliver on their behalf are as inclusive as possible, so, for example the Home Energy Scotland advice service is offered and available equally across Scotland's geography and wherever the demand originates. The nature of the Home Energy Scotland service is to support all households but with a particular focus on those vulnerable to fuel poverty, therefore the service supports high proportions of low-income households. Reach to disadvantaged households is monitored through recording households with income under £10.4k, disabilities, or significant health issues. Reach to households of different ethnicities is monitored through recording ethnicity within our equalities questions and comparing this with census data to ensure that ethnicities are supported at least proportionally to the census data, and we use this information to increase activity or resources to reach particular groups that appear to be under-represented. Energy Saving Trust is a member of Happy to Translate and Home Energy Scotland offers advice through interpretation and translation services, including BSL.

**12. In your opinion could any of the proposals set out in this strategy have an adverse impact on children's' rights and wellbeing?**

No response.

### **13. What further action can we take to support people to make informed choices on the energy efficiency and heating options available to them?**

We believe that the key infrastructure for supporting people to make informed choices on the energy efficiency and heating options available to them is already in place in Scotland through Home Energy Scotland and there will be a continued and growing need for the services it offers. Encouraging householders to install low carbon heating systems will mean persuading them to engage with systems that involve more complex choices and significant investment alongside home energy efficiency improvements. Our evidence shows that where Home Energy Scotland provides specialist advice on more complex measures such as small-scale renewables, including large numbers of heat pumps, over 80% per cent of customers who received this support and took action attributed that action, at least in part, to the support they received. Our evidence also shows how the specialist advice service has supported customer action on energy efficiency and heating options:

- Half of customers reported that the service gave them ideas for action.
- Two thirds of customers reported that the service gave them confidence to implement actions.
- Half of customers reported that the service provided them with skills and understanding to implement actions.

Against this background we believe that, in order to ensure that householders and owners are well advised and supported in making decisions to install a lower carbon heating system, it will be essential that the Home Energy Scotland advice and specialist advice functions are not only retained but are scaled up to support more householders. We also recommend that Home Energy Scotland remains the required route to access Scottish Government funding support for measures. It is therefore very welcome that the draft Heat in Buildings Strategy commits to *“invest in growing our advice services so that they continue to meet the needs of the Scottish public. This includes improving our digital presence and extending the support on offer to provide more in-depth support for installing zero emissions heating systems”*.

We also believe that the actions discussed in our response to question 9 above have a role to play in supporting people to make informed choices as well as in engaging them in the net zero heat transition.

Given that the production of hot water accounts for 12% of the energy used in homes it is essential that people are also supported to reduce their hot water demand through changing their behaviour and installing water efficient devices such as eco shower heads or tap aerators. These can be retrofitted to existing homes, but it will also be important that there is suitable framework in place to encourage fitting water efficient

devices in new built homes. Energy Saving Trust has undertaken work for Scottish Water which has shown that improved water efficiency labelling, and appliances fittings would not only reduce householder water usage and carbon emissions but would also result in cost savings.

The recent evaluation we undertook on a project Home Energy Scotland is delivering with Scottish Water has demonstrated that the provision of the free advice and water efficient devices help toward:

- Net zero objectives : the evaluation showed that in 2019–2020 the water advice and devices have contributed a lifetime saving 1,050 tonnes of carbon dioxide through the reduction of hot water at home.
- Fuel poverty objectives : Water efficient devices can be retrofitted to existing homes and help reduce energy bills. The evaluation showed that the project has helped achieve a lifetime saving of £400,500 on householders energy bills by reducing hot water consumption.

**14. What is your view on the current level of support and advice provided through existing services such as Home Energy Scotland and the Energy Efficient Business' Support service?**

As discussed in more detail in our response to question 9 above it will be essential that the Home Energy Scotland advice function is not only retained but is scaled up to support more householders and we support the Scottish Government's intention to do this. Any scaling up would need to be in line with the Scottish Government's installation ambitions. Delivery of Home Energy Scotland has grown over time and flexed to meet the needs of the Scottish Government and should continue to do so.

**15. Are there any further suggestions that you could provide on how the customer journey through these delivery services could be improved, in light of the ambitions set out in this strategy?**

As noted in our response to question 9 above one of the key challenges that the Scottish Government faces will be getting people to start the customer journey in the first place. Given the significant step change required in installation rates the importance of this first step cannot be underestimated. Heating half of Scotland's c.2.3 million homes using a low or zero emission heating system by 2030 means that more than 1 million homes will need to change their heating system over the next eight and a half years – often to a system completely different to the one they are currently using. This equates to 100,000 new systems installed each year or 2,000 new systems each week. Currently, 2,000–3,000 renewable heating systems are installed in Scotland each year and therefore a 50-fold increase is required. Delivering the proposed public engagement strategy for heat in

buildings will obviously have a key role to play here, and as noted above it is important that this involves significant additional marketing activity (than currently takes place) to raise awareness of and steer people towards the Scottish Government's Home Energy Scotland service.

Once people have started the journey it will be vital that they stay on it for as long as it takes to ensure their carbon savings are maximised. We believe that having someone who could project manage the energy efficiency and heating system upgrade work for them could play a key role in ensuring as many people as possible stay on (and complete) their carbon saving journey. This type of project management role is consistent with the remit of a Retrofit Coordinator – as will be required by PAS 2035 to manage every domestic retrofit project if it is to be compliant. In our response to the Scottish Government's parallel consultation on Scottish skills requirements for energy efficiency, zero emissions and low carbon heating systems, microgeneration and heat networks for homes we note that we would welcome greater clarity about the proposed interaction between the advice that will be provided by retrofit co-ordinators and assessors and that provided by Home Energy Scotland advisors and specialist advisors and this comment is also relevant here – perhaps the biggest question is the extent to which consumers in Scotland are willing to pay for advice and project management services – to help understand the point at which free advice and project management services are required (funding by Scottish Government i.e. Home Energy Scotland) and the point from which people would be happy to pay. It is important that the customer journey is as straightforward as possible to minimise drop out and to maximise action. As noted in our response to the Scottish Government's parallel consultation on skills, we appreciate that further thought and discussion may be required in this area and we would welcome the opportunity to feed into this and would be happy to facilitate a more detailed discussion if this would be useful.

**16. What are the most appropriate steps we can take within our powers to ensure sufficient consumer protection for supported energy efficiency or zero emissions heat installations?**

It will be vitally important that consumers are confident that the measures are appropriate to their home, the measures are fit for purpose and reliable, designed appropriately and installed by operatives who have the appropriate skills for their trade and who work to industry standards. The skills of the assessors, designers and installers are therefore of paramount importance. However, in addition to that, protections need to be in place should any link in the supply chain fail. For example, by ensuring designers have indemnity insurance and installers use products that come with a manufacturer warranty as well as a workmanship warranty which is also backed up either by insurance or by a trade body to ensure that consumers have redress even if the original company

ceases to trade. Finally, as added protection we believe independent inspections of the work need to be carried out and should the work be deemed unsatisfactory then the supplier should be required to rectify it. If there are frequent non-compliance issues then there needs to be robust enforcement including the removal of suppliers from any approved, public facing, supplier directory.

We support the actions detailed in the consultation document. As noted in our response to chapter 9 (the economic opportunity) to ensure high standards in a rapidly expanding sector, the Scottish Government should promote certification of installers under relevant industry standards such as the Microgeneration Certification Scheme, PAS2035 etc.by:

- Requiring appropriate certification for any installer working on installations supported by public money.
- Supporting the costs of certification for SMES through grants or loans.

**17. Do you have views on whether we should adopt the use of the UK government's TrustMark quality assurance framework?**

On balance, we with think it is sensible to have a quality assurance framework that is consistent with that in other parts of GB, and as such agree that, provided it ensures in practice that installations are of high standard, customer satisfaction is high and that any issues are addressed swiftly, the Scottish Government should adopt the UK government's TrustMark quality assurance framework.

**18. In your view, is there any further action that we, or other key organisations (please specify), can take to protect those on lower incomes, and those in or at risk of falling into fuel poverty, from any negative cost impact as a result of the zero emissions buildings transition?**

We support the Scottish Government's commitment to, following further research and if appropriate, "*look to maximise opportunities to install secondary technologies, enabling measures such as solar PV and thermal storage to help reduce running costs in order to further support the deployment of low and zero emissions heating systems.*". Such interventions will be important given that, as the consultation points out, there will be some cases where a renewable heating system may be more expensive to run than the system it is replacing. As well as looking to maximise opportunities to install secondary technologies we think it will be important that the Scottish Government considers the role that additional financial support could play in helping to avoid situations where householders could be financially disadvantaged as a result of installing a low or zero emissions heating system. We believe that there may be cases where it would be appropriate for the Scottish Government to provide additional financial support.

We also think it will be important for regulation for heating systems to be linked to replacement cycles to ensure that wherever possible systems aren't replaced prematurely. In this context it will also be important that people are given sufficient notice about when regulation will commence from and we welcome the recognition of this in the consultation.

**19. What are your views on our approach to phasing out funding for fossil fuel heating systems by 2024 where it is not detrimental to our fuel poverty objectives? Do you think that this could be achieved any sooner than 2024, and if so how?**

We support the Scottish Government's approach to phasing out funding for fossil fuel heating systems where it is not detrimental to fuel poverty objectives. Provided the right support mechanisms are in place to support those who might end up with higher fuel bills (i.e. support to install secondary technologies, additional financial support), and there is scope for exemptions in certain circumstances (e.g. where a householder may be particularly vulnerable and unable to cope with a significant change to the type of heating system they have) we see no reason why this could not be achieved sooner than 2024.

**20. What changes can be made to the Strategy to help maximise positive impacts and minimise negative ones on people experiencing fuel poverty and other vulnerable groups?**

See responses to questions 17-19 above.



## 3. Place

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### 21. What are your views on how we can support place-based deployment of zero emissions heat within our delivery programmes?

We very much welcome the recognition in the draft strategy that communities “*will play an important role in driving forward the transformation of the nation’s building stock*” and believe that the proposals the support outlined in the consultation document – the support available via CARES, exploring opportunities to integrate heat decarbonisation in emerging community climate action initiatives, working in collaboration with the Scottish Cities Alliance of the seven cities on opportunities to accelerate activity – will play a key role in supporting place-based deployment of zero emissions heat within the Scottish Government’s delivery programmes.

We were pleased to see the commitment to exploring the opportunity to integrate heat decarbonisation into emerging community climate action initiatives such as Community Climate Action Hubs. We look forward to additional information about the Community Climate Action Hubs becoming available in due course and note that it will be important that these hubs work alongside CARES in a complementary way and also that there is not a continuity gap between Climate Challenge Fund projects ending and the start of any replacement scheme(s) as this could result in a loss of learnings, staff and established projects.

We believe that community led local energy plans could have a key role to play in supporting place-based deployment of zero emission heat within the Scottish Government’s delivery programmes. We recommend that funding is made available through CARES to support communities that can demonstrate a need to develop a community led local energy plan. We expect these will best complement LHEES in rural areas where there are often unique characteristics in the energy system. In practice we would expect there to be a two way flow of information between local energy plans and LHEES. For example:

- Community leads on completing a Local Energy Plan, this local insight and detailed community scale plan should be used to inform the development or updating of the LHEES.
- The Local Authority scale LHEES identifies geographical areas that identify particular areas /zones where there is significant challenge or opportunity. The community led local energy plan could be delivered in these areas to help engage the wider community to facilitate action to address the challenge/opportunity.

We also believe that, as part of the Scottish Government's efforts to ensure a just transition, it will be important to provide extra support to marginalised or disadvantaged communities to take forward low-carbon heat projects. This support should include funding for project officers on the ground to look for opportunities, take projects forward, provide extra handholding and also funding calls that focus on the right options/solutions for these communities etc.

## **22. What is your view on how best to engage, and support, local communities in the planning and implementation of the heat transition in their area?**

We believe that local communities should be engaged and supported in the planning and implementation of the heat transition in their area through:

- Support to deliver local energy plans, particularly for rural communities or where there are unique local characteristics.
- Support to ensure there is community engagement into the development of LHEES with events organised and opinions canvassed.
- Accelerating the decarbonisation of community buildings to ensure that the local community can see first-hand low carbon heating in practice. These should be prioritised in rural, off-gas communities.

## **23. What role do you think community anchor organisations could play in supporting the heat transition?**

Energy Saving Trust believes that community anchor organisations have a vital role to play in supporting the heat transition – as trusted local organisations with local contacts who are able to provide support, advice, reassurance, and practical assistance, and in their ability to act as a liaison point between the community and other stakeholders (including Scottish Government funders). Indeed, there is evidence<sup>2</sup> that shows the key role that local community anchor organisations can play in supporting energy projects.

However, one of the challenges for any local anchor organisation is ensuring it represents the wider community. A Community Trust or community company can only be representative of its members' views and it therefore needs to engage with the wider

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<sup>2</sup> See for example: <https://www.localenergy.scot/projects-and-case-studies/case-studies/community-benefits/kyle-of-sutherland-development-trust-the-growth-of-a-community-anchor-body/>

And: <https://www.localenergy.scot/projects-and-case-studies/case-studies/community-benefits/soirbheas/>

community. A number of Community Action Plans have been funded through CARES that aim to seek a community mandate for priorities. We would be happy to provide additional details about this work if the Scottish Government would find it useful.

The [Energy Systems Options Appraisal Study](#) is a good example of being able to publicly present energy challenges which can then be discussed by key stakeholders .

We also note that the role of community anchor organisations can be limited when they are staffed solely by volunteers –there is a limit to the amount of time that volunteers can allocate.

**24. In your opinion, what steps can we take to ensure that policies set out in this strategy do not unfairly impact Island and other remote communities?**

The evidence we have on these issues stems from our work managing the Sustainable Energy Supply Chain Programme<sup>3</sup> and the Home Energy Scotland advice network on behalf of the Scottish Government. We know from previous research<sup>4</sup> by the Sustainable Energy Supply Chain programme that people living in remote rural and island areas often prefer to use local businesses, both on the basis of trust and to support the local economy. As a result, some householders end up “*using local, non-certified businesses to complete their installations*”. This has meant that where systems have not been signed off as MCS compliant then it has not been possible to claim the RHI or a Scottish Government loan and in such cases systems will have been installed without government support and without the same level of quality oversight and consumer protection.

We also have feedback from Home Energy Scotland staff working in remote rural and island areas that using external installers tend to increase the costs of systems . As an example, if work was to be carried out on the Isle of Arran a team of installers would need to stay overnight and this would be reflected on the customer’s quote along with the cost of transportation. Home Energy Scotland specialist advisors have suggested that an air source heat pump installation on the island would typically cost at least £1,000 more than the same installation on the mainland. If there were local qualified installers who were supported to grow with the local heat pump markets these costs could be avoided and rural economies could be strengthened.

With the right support (including, but not limited to, the provision of support for local colleges and training centres to provide training, and support in the form of subsidy for those who have to travel considerable distances to access necessary training courses)

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<sup>3</sup> See: <http://www.energysavingtrust.org.uk/scotland/businesses-organisations/supply-chain>

<sup>4</sup> [Supply chain analysis of remote rural and island areas – March 2015](#)

and with certainty of a pipeline of work provided by the Scottish Government's policies we believe that there is the potential to drive up the quality of installations in Scotland, reduce costs, as well as improving security of supply (a particular challenge in remote locations).

We also note that continued funding of programmes like CARES have an important role to play in ensuring that island and other remote communities are not unfairly impacted. CARES can provide development officer support, funding and due diligence teams and is well placed to support heat projects in remote and Island communities and ensure a just transition for these geographically remote communities.

**25. What is your view on the timescales proposed for LHEES?**

Energy Saving Trust supports the Scottish Government's intention that all Local Heat and Energy Efficiency Strategies (LHEES) and Delivery Plans are in place for all local authority areas by the end of 2023. We note however that the consultation is silent about implementation dates for LHEES. We believe that implementation of LHEES strategies and delivery plans, where these are already in place, should take place in parallel with the ongoing development of the remaining LHEES strategies and delivery plans and would welcome further clarity on implementation timescales in the final version of the Heat in Buildings Strategy.

**26. Do you agree with the approach to LHEES set out above? If not, please give reasons to support this.**

See response to question 25 above.

**27. What are your views on what Permitted Development Rights might help enable in the heat transition, in addition to those we have already included in the Permitted Development Rights review programme?**

As noted in our response to the Scottish Government's 2019 consultation on their proposed programme for reviewing and extending Permitted Development Rights (PDR) in Scotland we welcome the Scottish Government's intention to consider the potential extension of Permitted Development Rights for heat networks and micro-renewable technologies.

In our response to that consultation, we emphasised the importance of bringing forward the reviews of development types that will help address the global climate emergency (e.g., Permitted Development Rights for heat networks and micro-renewable technologies) so these happen earlier in the programme. We understand that the phasing of the programme for reviewing Permitted Development Rights has been impacted by COVID 19 and urge the Scottish Government to undertake these reviews as soon as possible.

As part of this work it will be important to review the controls associated with conservation areas and listed buildings. We believe that, in the light of current climate science and of the declaration of a 'climate emergency' there is a need to review any controls associated with conservation areas and listed buildings which may prevent the installation of some low carbon heat solutions.

In this context we welcome the Scottish Government's intention to "*work with stakeholders, including Historic Environment Scotland to develop approaches and solutions to transition Scotland's historic buildings to low and zero emissions heating...*".

## 4. Preparing our Energy Networks

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**28. In your view, is there further action that can be taken to ensure that our electricity systems are ready for heat decarbonisation? If yes, please provide further information.**

We agree with the actions set out by the Scottish Government. In particular, we agree that analysis during 2021 to understand generation and network requirements is valuable.

**29. What are your views on the changes set out above for the electricity networks and are there further actions that could be taken by government, the regulator or industry that would make these more cost effective? Please provide evidence to support any suggestions.**

We agree with the actions set out by the Scottish Government. We emphasise that a flexibility first approach should be taken to avoid network reinforcement. Well functioning markets can lower costs, so it is important that DNOs should use their DSO function to create effective local flexibility markets. The Scottish Government and Ofgem and DNOs could explore any areas where energy efficiency could be used as a cost-effective alternative to grid reinforcement to tackle constraints.

**30. In your view, what changes are needed to ensure that those least able to pay, including those in fuel poverty, are not unfairly impacted by the transition in our electricity and gas networks?**

We agree with the actions set out by the Scottish Government. It will be important to ensure that costs for network reinforcement are not higher than they need to be to reduce the pressure on bills. Taking a flexibility first approach to managing constraints should help to reduce the need for physical reinforcement as will maximising energy efficiency in the area served by the constrained network.

The Scottish Government and Ofgem (especially though the current ED2 price control process) could explore how DNOs can support consumers in fuel poverty by meeting the new ED1 licence duty LC 3IE<sup>5</sup> on promoting energy efficiency as an alternative to network investment. [Sustainability First have suggested a number of ways that DNOs could approach meeting this duty.](#)

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<sup>5</sup> LC 3IE 1.d 'promoting the uptake of measures to improve Energy Efficiency, where such services costeffectively alleviate the need to upgrade or replace electricity capacity and support the efficient and secure operation of the Distribution System. This may include procuring Energy Efficiency Services, where it is economic and efficient to do so;'

**31. What are your views on the changes set out above for the gas networks?**

We agree with the actions set out by the Scottish Government.

**32. Are there further actions that could be taken by government or industry that you think would make the changes set out more cost effective? Please provide evidence to support any suggestions.**

We agree with the actions set out by the Scottish Government.

**33. What evidence can you provide on the potential for heat networks in Scotland that can help inform a new ambition for deployment within the final Heat in Buildings Strategy?**

We welcome the Scottish Government's intention to set a new ambition for heat network deployment in Scotland once the refreshed National Comprehensive Assessment (NCA) of the potential for combined heat and power and district heating and cooling is published and the data for Scotland is available.

Whilst we do not have any specific evidence on the potential for heat networks in Scotland we do have evidence relating to the fuel sources of district heating projects that have been funded via the District Heating Loan Fund (DHLF) which we administer on behalf of the Scottish Government. Over recent years we have seen a reduced number of applications for biomass wood fuelled district heating projects – likely as a result of changes to the non-domestic Renewable Heat Incentive (RHI) and an increased number of applications for heat pump projects. We would be happy to provide further, more detailed information about fuel sources of projects funded via the DHLF if the Scottish Government would find this a useful contribution to its work to set a new ambition for heat network deployment in Scotland.

**34. What evidence can you provide on the potential for heat derived from energy from waste to qualify as low or zero emissions?**

We do not have any specific evidence on the potential for heat derived from energy from waste to qualify as low or zero emissions.

**35. What views do you have on mechanisms to support this and the use of wider sources of waste heat?**

Currently waste/residual heat is not used in any quantity in district heating systems in Scotland. Yet the potential waste heat that could be used for district heating networks is likely to be significant. The report 'Potential sources of waste heat for heat networks in Scotland' (published 2020 by ClimateXChange estimates a waste heat potential of circa 1,677 GWh across some 932 sites in Scotland.

Businesses that generate waste heat are not heat supply businesses and even if they are paid for the residual heat are not likely to prioritise an activity that is outside of the main purpose and expertise of their business and that could carry additional risk. It is our view that the only way to ensure that a significant proportion of the waste heat available is supplied to district heating networks is to require that connections between appropriate industrial sites and district heat networks (where feasible) are made. This would require co-ordination from the Scottish Government as well as incentivisation to fund necessary plant and equipment such as pipework extensions and heat recovery equipment.

We note however that there will always be uncertainty in relation to the ongoing security of supply from waste/residual heat and as such believe that this should not be relied upon as the sole heat source for heat networks.

There are a number of barriers in relation to waste/residual heat sources being connected to heat networks including complexities around negotiating contracts between industries and district heating schemes, the need for solutions that fit local circumstances and the fact that, as a result of high up-front costs and long payback periods, installing heat recovery technologies tends to be seen as an energy efficiency requirement that has relatively low importance within corporate priorities.

In addition, in many, but not all, cases the source of waste heat is often too far away from suitable customers to make it viable for it to be used. Detailed feasibility work should be carried out to establish potential for waste heat capture for existing and proposed heat networks with development support being made available for this work.

**36. With the sustainable market for heat networks described above in place by the early-2020s, are there any further gaps that must be filled to support subsequent delivery of heat networks? If so, what are these and are there particular types of organisation that would be key in filling these?**

Energy Saving Trust believe that there are a number of further gaps that must be filled to support subsequent delivery of heat networks, these include:

- **Skills.** One of the key existing gaps that must be filled to support subsequent delivery of heat networks is the gap in skills necessary to design, commission, install and maintain heat networks. In this context Energy Saving Trust believes that the Scottish Government's plans outlined in their current consultation "*Scottish skills requirements for energy efficiency, zero emissions and low carbon heating systems, microgeneration and heat networks for homes*" for developing heat network skills – through the identification of skills gaps and training needs in the sector and associated work to ensure these are filled, along with work to develop technical standards for heat networks – are sensible and necessary. It is vital that



these skills are available as locally as possible to help reduce operational costs and maintain security of supply for end users. We look forward to continuing to work with the Scottish Government through the Sustainable Energy Supply Chain Programme to help ensure that the district heating supply chain can meet expected growth in demand for the skills necessary to design, install, commission, and maintain heat networks.

- **Access to information and guidance about heat networks for consumers.** Other gaps include access to information and guidance about heat networks generally. We believe that heat suppliers should be required to develop specific information and guidance for prospective consumers including:
  - Quality of service obligations
  - Details of heat supply agreements including potential disconnection procedures/costs
  - Complaints procedures
  - Information about disconnection processes and costs
  - Whether the operator of the heat network is a member of Heat Trust
  - Whether heat network operators are licenced (subject to new regulations being in place)
  - A householder information pack explaining how heat networks operate and any operational differences between heat networks and conventional heating (e.g. boilers being replaced by heat interface units) including details of where consumers can go for impartial advice and explaining that they can't change supplier.
  - Clear and transparent pricing: Energy Saving Trust believe that as part of any licensing requirement that operators should be required to publish heat tariff rates (including standing charges)
- **Support for local authorities.** We also note that if the potential for district heating across Scotland is to be fulfilled all local authorities will require, to a greater or lesser extent, additional skills, resource and support. It is important to note that all local authorities will be starting from different points in relation to their existing district heating related expertise and experience.

As well as providing additional resources directly to local authorities, we believe that additional support could be provided through the provision of expert district heating advisers who could play an important role in building expertise within

local authorities. Generic support tools could also be provided to help with scoping work and developing robust options appraisals for project development and financial project management tools for project implementation. Existing national agencies will have an important role to play in providing support to local authorities.

- **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. Importantly this includes those commissioning and procuring projects and so 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.
- **Provision of public subsidy.** We see a continued role for the district heating loan fund as well as grant support such as LCITP. Grant funding coupled with low interest lending will be vital to mitigate the initial investment risk for heat network developers (particularly in the absence of non-domestic RHI support). The district heating loan fund (DHLF) is a dedicated heat networks fund managed by the Energy Saving Trust on behalf of the Scottish Government. To date the scheme has funded 54 projects through provision of £21M of loan funds. As the loan fund is 'unsecured' debt finance it can work alongside other lending to co-fund larger projects. At this stage of market transformation in Scotland when district heating is perceived as too high a risk for mainstream lenders this type of funding together with that of grant support for projects remains vital. Grant funding (both development and capital) can help to significantly 'de-risk' projects at the outset. In this context, we very much welcome the commitment in the consultation that the Scottish Government will shortly lay Regulations to create a 90% relief from non-domestic rates until 2024 for networks that run on renewable sources. Heat networks require a degree of funding certainty at the outset as it often takes time to connect potential customers and heat loads to generate revenues from heat sales.

We also believe there is scope for the introduction of match grant funding for upgrading and decarbonising existing heat networks. This would help to overcome some of the existing issues with inefficient 'legacy' schemes helping to minimise heat losses and provide better outcomes for customers. Debt finance alone does

not usually provide a sufficient incentive for operators to upgrade and decarbonise their networks.

Finally, we would like to emphasise the importance of the ongoing provision of informed expert support such as that currently provided by the DHLF programme team as well as other agencies such as Scottish Futures Trust and Zero Waste Scotland. DHLF support includes project scoping work assessing applications, undertaking project appraisals, carrying out technical and financial due diligence and ongoing risk monitoring of projects. Additional support and guidance are also provided through an expert advisory panel. This kind of ongoing support is essential because (as already noted) the district heating sector in Scotland is still developing and projects tend to be complex and bespoke, involving a wide range of stakeholders (many still with relatively little experience of the technologies involved).

## 5. Kick-starting Investment in the Transition

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**37. What are your views on the range of actions identified above to kick start the investment in the transition over the next 5 years?**

Energy Saving Trust welcomes the eighteen actions to kick start the investment in the transition over the next 5 years.

**38. Do you agree with the strategic funding priorities set out above?**

Yes, Energy Saving Trust agrees with the strategic funding priorities set out in the consultation document.

**39. In your view, should equal funding be allocated across these priorities or should certain priorities be weighted in terms of impact for Scotland?**

No, we do not think that funding should be allocated equally across these priorities. We think that all priorities should be weighted. Specifically, weighting should be given to mitigating against fuel poverty and meeting heat targets.

**40. What are the opportunities and challenges we face in maximising our £1.6 billion investment?**

There will be considerable opportunities and challenges associated with creating the necessary levels of demand for measures (energy efficiency and low and zero emissions heating systems) and in expanding and upskilling the supply chain to meet that demand (please see responses to questions from chapters 3 and 9).

**41. What are your views on the role of government funding over the next five years? For example, should it be focused towards significant increases in the volume of renewable heat and energy efficiency measures installed or more targeted at specific priority groups or technologies?**

We think that key areas of focus for Scottish Government funding over the next five years should be on enabling installations as quickly as possible in low and no regrets areas and ensuring a just transition for those living in fuel poverty.

**42. What are your views on how we can use our funding to leverage and encourage private sector and other forms of investment?**

Through Home Energy Scotland The Scottish Government already uses its funding to successfully leverage and encourage private sector investment through the provision of Home Energy Scotland and Private Rented Sector Landlord loans and cashback.

As we have suggested in previous consultation responses the current financial climate presents an opportunity to attract more private sector finance that would otherwise be the case because borrowing costs are very low. There is therefore a possible route for 'able-to-pay' householders with equity in their properties, which is to simply go to their existing borrower. This would have the incentivising advantages of familiarity and of offering a very simple process to get the necessary finance at low cost. However, householders are likely to need to be 'incentivised' in some way to do this. We think there could be merit in exploring whether a small cash grant could be used for this purpose. The success of the 'cash-back' for Home Energy Scotland loans suggests that this could be a viable option. Clearly, it would only be advantageous to explore this as a potential route if the cost (to the Scottish Government) of providing small cash grants was less than the cost (to the Scottish Government) of providing a loan.

There are a variety of alternative models that could be used to mobilise private investment and while Scotland has already started to show some innovation in this space with the introduction of equity loans we think there is scope for further innovation. In particular, we think that there could be a future role for on-bill financing. This approach is already being used in other parts of Europe. Within the social housing sector in the Netherlands for example the Energiesprong<sup>6</sup> model works by replacing the bill that the residents would have paid to the energy companies with an Energy Plan (that costs the householder no more than the bill that was previously paid to the utility) that is paid to the housing provider. In addition, it is worthwhile emphasising that the Green Deal mechanisms for on bill finance are already in place and there is scope of make more use of these. We also think there could be merit in exploring the potential for loans that can sit on the home/land such as the PACE financing model<sup>7</sup>.

**43. What are your views on the effectiveness of our existing delivery programmes in supporting different client journeys, including for those in or at risk of fuel poverty? (for example, landlords, home owners, non-domestic building owners – public and private, domestic and non-domestic tenants). In your opinion, are there any gaps in support?**

Existing support is fairly comprehensive in terms of supporting different client journeys. We do, however, think there is a key gap in terms of the support available for flat owners.

The Scottish House Condition Survey identifies that flats are the most energy efficient part of the housing stock: that's because flats tend to be newer than houses and are an inherently more energy efficient built form than houses, with heat loss reduced because every flat shares walls, roof or floor with at least one other home. However, overall energy

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<sup>6</sup> See: <https://energiesprong.org/>

<sup>7</sup> See: <https://www.energy.gov/eere/slsc/property-assessed-clean-energy-programs>

performance data disguises the critical fact that flats are probably being retrofitted with energy efficiency measures at a slower rate than houses.

As Scotland moves towards planned targets for energy efficiency and renewable heat in buildings, more and more action is likely to be required at building scale in tenements, rather than at the level of individual flats: most obviously fitting insulation is most effectively and cost-effectively done at building level, and the heat transition will require much wider use of communal heating in buildings, whether or not connected to a wider district heating network.

There are technical barriers to installing some energy efficiency measures on some tenements but the key barrier to upgrading Scottish tenements is certainly governance arrangements – i.e. the difficulty of arranging collective action between co-owners so action can be taken at a building level.

As the delivery body for Home Energy Scotland, Energy Saving Trust on behalf of the Scottish Government provides advice to flat owners. However, Scottish Government funded support provided via Home Energy Scotland has been limited in terms of engaging with Scottish flat owners about taking collective action on their buildings.

Home Energy Scotland provides zero interest loan financing for energy efficiency and renewable energy measures in Scottish homes. To date this financing has not been promoted to co-owners of tenements to use collectively.

**44. Is there any action we can take to further tailor our support to meet the ambitions set out in this strategy, including in relation to fuel poverty? (Please include any evidence you may have to show what this might achieve.)**

In order to further tailor the support available to flat owners we think the following will be required:

- Owners should be required to carry out regular surveys. This approach is broadly in line with approaches in other parts of Europe. For example, in Finland renovation plans (Pitkän tähtäimen suunnitelma” (PTS)) are required for apartment buildings which provide details about the overall condition of the property and its further repair needs including timing and costs. And in France, ‘Global Technical Diagnosis’ – a holistic tool designed to inform apartment owners about all key technical aspects in their buildings is mandatory for any apartment building over 10 years old. Any surveys should, as is the case in France, include a building level energy survey. This would ensure that residents could understand (and potentially act on) building level energy efficiency solutions as well as dwelling level solutions (which some would have

information about via their EPC). Available evidence<sup>8</sup> suggests that a significant majority (74%) of European countries issue EPCs at the building level as opposed to the dwelling level.

- Owners should be required to set up building reserve funds. Obligations for the establishment of dedicated funds to cover the costs of maintenance and renovation work apply in other European countries, including Portugal, Poland and Germany and experience/lessons from the development/introduction of such funds in these countries could make a useful contribution to their introduction in Scotland.
- Owners should be required to form owners associations. The literature<sup>9</sup> emphasises that a lack of or weak owners' associations are a key barrier that prevents buildings in need of energy efficiency upgrades from being renovated '*as there is no legal entity to organise the individual owners and enforce their obligation to pay their share of the debt*'. We note however that the establishment of a compulsory owners' association does not in any way guarantee that owners will actually meet or that they will make decisions about the upkeep of their building. We therefore believe that any requirement to establish compulsory owners' associations must be accompanied by a requirement that such associations meet at regular intervals together with rules about how certain decisions should be made (e.g. quorums necessary to make decisions etc.). The literature<sup>10</sup> highlights that where there are mandatory requirements for owners' associations in other parts of Europe there are also mandatory arrangements for decision making processes. In Hungary, for example, an annual meeting is required for apartment owners together with the appointment of an 'audit committee' which is usually made up of three apartment owners.
- Development of financial solutions for co-owners to use collectively.

As we note above, there is a need to encourage flat owners to come together to take whole building action to improve the energy performance of their tenements. We note that several European research organisations, led by the Fraunhofer Institute, have

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<sup>8</sup> See: <https://www.epbd-ca.eu/outcomes/2011-2015/CA3-BOOK-2016-A-web.pdf>

<sup>9</sup> See:

[http://publications.jrc.ec.europa.eu/repository/bitstream/JRC110289/energy\\_efficiency\\_upgrades\\_in\\_multiowner\\_apartment\\_buildings\\_final.pdf](http://publications.jrc.ec.europa.eu/repository/bitstream/JRC110289/energy_efficiency_upgrades_in_multiowner_apartment_buildings_final.pdf)

<sup>10</sup> See for example: Weatherall, D., McCarthy, F., & Bright, S. (2017). Property Law as a Barrier to Energy Upgrades in Multi-owned Properties: Insights from a Study of England and Scotland. Energy Efficiency. <https://doi.org/10.1007/s12053-017-9540-5>.

prepared a process standard in this area (CWA 17382; CWA is the European equivalent of a PAS). This sets out a standard process for engaging the co-owners of apartment buildings to take collective action on energy retrofit of their block as a whole building - addressing energy efficiency and renewable energy improvements. Noting the different national contexts, the process standard lays out broad principles for working with co-owners to identify the opportunities, benefits and costs of action on energy, and develop a retrofit roadmap, supporting them to the point where they begin to take action. We believe the use of this standard could have role to play in helping flat owners in Scotland to make collective decisions. Energy Saving Trust staff were involved in the development of this process standard and would be happy to discuss it and its applicability to Scotland in more detail with the Scottish Government if this would be useful.



## 6. Working Towards A Long-Term Market Framework

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### **45. What are your views on the approach outlined above to take action towards a long-term market framework for net zero emissions in buildings?**

Energy Saving Trust supports the approach outlined in the consultation to take action towards a long-term market framework for net zero emissions in buildings.

We were interested to note that the Scottish Government plans to consider how its “*local tax powers, such as council tax and non-domestic rates, could be used to incentivise or encourage the retrofit of buildings*” and that they will “*commission further analysis to identify potential options, to be implemented from the middle of the decade where appropriate, subject to consultation and public engagement*”. We agree in principle that linking energy efficiency to local taxation could encourage householders and non-domestic building owners to improve the energy efficiency of their homes and buildings. A number of years ago we undertook some analysis on energy efficiency and local taxation to feed into wider work being undertaken by the Commission on Local Tax Reform and the Scottish Government might be interested in this. It can be found here: [https://www.energysavingtrust.org.uk/sites/default/files/Paper%20for%20Commission%20on%20Local%20Tax%20Reform\\_11August15.pdf](https://www.energysavingtrust.org.uk/sites/default/files/Paper%20for%20Commission%20on%20Local%20Tax%20Reform_11August15.pdf)

### **46. What are your views on how we can achieve a fair and equitable cost distribution for the net zero transition, including ensuring we tackle fuel poverty?**

In delivering a fair and equitable cost distribution for the net zero transition, including ensuring that fuel poverty is tackled, we believe it will be important for the Scottish Government to continue to provide grant funding for those who cannot afford to pay for energy efficiency and low and zero carbon heating systems.

It will be also be important to ensure that those who are ‘nearly fuel poor’ who do not qualify for fuel poverty schemes but whose income level is such that energy costs are still a significant factor in household budgets, are able to access affordable finance for energy efficiency and low and zero carbon heating systems.

The Scottish Government should also ensure that support packages continue to provide a comprehensive approach to tackling fuel poverty – dealing with all of the causes of fuel poverty not just those relating to energy inefficiency i.e. high fuel prices, low incomes and householder behaviour. The provision of benefit and tax credit checks and the referral of households for help to reduce their energy costs have been important and successful elements of the Scottish Government’s fuel poverty schemes for a number of years and

it will be important that support packages continue to provide this comprehensive approach.

As the pace and scale of the transition increases, it will be vital that the Scottish Government continues to ensure that those most in need of help are able to access impartial advice and support. Home Energy Scotland works with a number of trusted partner organisations such as health and social care organisations to build referral pathways for vulnerable householders. It will be important to continue to build on this work to ensure that those most in need of help are able to access help

**47. What financing mechanisms are needed to encourage investment from householders, businesses and the private sector?**

It will be important that a wide range of financial support mechanisms are available – there needs to be a suitable option available for all.

In this context we welcome the Scottish Government’s commitment to set up a Green Finance Taskforce to provide advice and recommendations on financing mechanisms.

Please also see our response to question 42 above.

## 7. Developing a Regulatory Framework for Zero Emissions Buildings

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### **48. What are your views on the regulatory actions set out in the proposed regulatory framework?**

As noted earlier in our response Energy Saving Trust strongly supports the Scottish Government's intention to "introduce new regulations to set standards for zero emissions heating and energy efficiency" where it is within their legal competence. We also support the Scottish Government's intention to reform the assessment process and metrics underpinning EPCs so they can be used as the basis for regulation. We were also pleased to see the consultations recognition that "*for EPCs relating to properties in mixed-tenure and mixed-use buildings, it will be important that they recommend the necessary communal works to retrofit the whole building*". As noted in question 44 above it is important that those living in flats can understand (and potentially act on) building level energy efficiency solutions as well as dwelling level solutions.

### **49. What are your views on the timeframes set out for the application of the regulation set out above?**

Given the very challenging nature of Scotland's targets together with the concerns about their deliverability raised by the Climate Change Committee, we think that consideration should be given to bringing forward the timeframes set out in the consultation for the application of regulation.

### **50. What are your views on how our Delivery Programmes could support compliance with regulation?**

Delivery programmes, specifically the Home Energy Scotland advice service, could be a route through which people in Scotland can find out more about why regulation is being introduced, what regulation applies to them, when they need to comply, what the options are for improving their home and the benefits associated with these (fuel bill savings, carbon emissions reductions, warmer, more comfortable homes etc.). Delivery programmes could also support compliance by providing financial help for those who need to improve their properties as a result of regulation and it will be important that other delivery programmes such as Home Energy Scotland are able to provide advice to people about the financial and other support that would be available to help them meet any standard (loans, grants, equity release etc.).

Delivery programmes could also work in partnership with local authorities to support compliance. This could, for example, include local authorities referring people in their areas to Home Energy Scotland for advice about meeting standards.

Delivery programmes could also work to ensure that people know how best to control their heating systems once their home has been improved to ensure that the carbon savings envisaged are actually achieved.

In addition, delivery programmes, including Home Energy Scotland could also have a role to play in raising awareness about regulation before it is introduced and in encouraging people to meet forthcoming regulatory standards earlier than they would have otherwise done. This would help to reduce the amount of disruption for people (for example, if someone called Home Energy Scotland to ask for advice about changing their boiler, a discussion about forthcoming regulation could result in the householder replacing their boiler and improving their insulation at the same time).

#### **51. What other mechanisms/support may be required to ensure that regulation is fair and equitable for all?**

It will be vitally important to ensure that regulation is fair and equitable for all. A range of mechanisms/support is likely to be required to be required. This should include the availability of appropriate financial support for all according to need with loans for those who can afford them and grants for those who can't, access to free, impartial tailored information and advice about regulation and its implications for individuals, post installation advice to ensure people get the most out of their new energy efficiency and heating measures and that envisaged bill and carbon savings are delivered in practice. Equity and fairness will also need to be considered in the design of regulation to ensure that no one is disadvantaged – so, for example at the point of sale the obligation to meet the standard could be met by either the buyer or the seller – this would mean that people who due to their individual circumstances (e.g. someone selling their home to move into a care home) are not able to improve their homes would not be penalised. Such an approach would also ensure that home energy improvements are made at the most appropriate time – it would not, for example make sense to improve the energy efficiency of a property if the home needed substantial renovation work – as it would make more sense to do it as part of any renovation project.

## 8. The Economic Opportunity

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**52. What are your views on the plans set out to maximise the economic benefits to Scotland from the heat transition?**

We support the plans laid out in the consultation document to maximise the economic benefits to Scotland from the heat transition.

**53. What role could technology-specific milestones (for example, by 2025) play in supporting supply chain development, and how should these milestone levels be developed?**

Feedback that we continually receive from the supply chain through our work with them on the Scottish Government's Sustainable Energy Supply Chain Programme, suggests that the most important thing that can be done to ensure that local supply chains are expanded and up-skilled is for the Scottish Government to provide them with long term certainty – and we think that technology specific milestones could have a role to play in providing this. It is important to note however that milestones alone won't be enough – the supply chain will also need to have sufficient confidence that the right policy mechanisms are in place to support delivery against these milestones.

As noted in our response to questions 7 and 8 we think that any technology specific milestones (or targets) should be annual and should be in line with the Scottish Government's existing ambitions in this area, providing these are consistent with the recommendations of the Climate Change Committee (CCC).

**54. Is there anything further that can be done to ensure that Scotland realises the economic opportunity available from the heat transition?**

No response.

**55. What more can be done to support the development of sustainable, high quality and local jobs in the heat and energy efficiency supply chain across the breadth of Scotland?**

As noted in our response to the Scottish Government's skills consultation we believe that there is a need for the Scottish Government to develop a package of support for the supply chain that could include, for example, funding to attend, and where appropriate (for example for those living in remote rural or island areas) relevant training courses) travel to, relevant training courses. If, as the parallel Scottish Government consultation on skills suggests, the Scottish Government adopts PAS2035 requirements, it will also be important that the Scottish Government supports the costs of this certification for SMES through grants or loans. We also recommend that the Scottish Government provide

financial support to people whilst they reskill to avoid the disincentive of a reduced income during the training period.

We think it will be important for the Scottish Government to work with supply chain organisations such as SNIPEF to incentivise additional uptake of the renewables modern apprenticeship pathway, and introduce shorter, conversion courses for those coming into the industry from other sectors. This will require agreeing suitable provision of courses and places with the Scottish college network. In addition we think that the Scottish Government should work through SNIPEF to agree targets for numbers of apprentices training to install heat pumps, with the supply chain agreeing to host the agreed number of apprenticeship places and, importantly, jobs for those apprentices when they are trained. It is also important to note that rural economies could be strengthened if indigenous SME installers are supported to grow with the local markets (e.g. heat pump markets) rather than additional capacity to satisfy demand being supplied to these markets from larger regional or national installers.

We also note that feedback from industry representatives to the Sustainable Energy Supply Chain Programme has highlighted that they do not believe that their industry is attractive enough to young people and that they would welcome Scottish Government interventions to help to remedy this. We are therefore pleased to see that this consultation is asking about how the Scottish Government can support the development of more opportunities for young people. We already know that there is significant concern about climate change amongst young people. This is demonstrated by the increasing proportion of young adults viewing climate change as an immediate and urgent problem – in 2013 38 per cent of 16-24 year olds viewed climate change as an immediate and urgent problem, rising to 69 per cent in 2019<sup>11</sup> – and also by the youth climate strikes. We think a significant opportunity exists to link this increasing level of concern to the green jobs agenda – attracting Scotland's young people to actively contribute, through the jobs they chose, to tackling climate change.

**56. In your view, what are the opportunities and constraints presented by the role of the wider public sector in maximising the economic benefits to Scotland?**

No response.

**57. In recognition of the proposals in the forthcoming skills consultation, what further action can be taken to support skills development in Scotland over the lifetime of this strategy?**

See response to question 55 above.

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<sup>11</sup> <https://www.gov.scot/publications/scottish-household-survey-2019-annual-report/>

**58. Are you aware of any barriers to the reskilling of existing oil and gas heating engineers to equip them to install low and zero emission heating?**

No response

**59. How can we support the development of more opportunities for young people?**

No response.

## 9. Working with the UK Government

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**60. To what extent do you agree that the issues identified must be addressed jointly by the UK and Scottish governments to unlock delivery in Scotland?**

We agree that these issues need to be jointly addressed by the UK and Scottish Governments to facilitate the delivery of action to meet Scotland's climate change targets.

**61. Are there any further areas where joint action is required, for example to ensure no one is left behind in the transition and fuel poverty is addressed?**

No response.



## 10. Monitoring, Evaluation and Future Decision Making

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**62. Do you agree with our proposals for a monitoring and evaluation framework? If not, please state your reasons and suggested improvements.**

We agree with the proposals for the monitoring and evaluation framework. In addition, in order to strengthen the framework we would suggest that a theory of change is developed alongside the framework so that causal pathways are clearly defined. This will ensure that any reviews of the evaluation framework can easily track potential impacts of change in policy, or other changes, on the causal pathways and inform how the evaluation framework should be altered, if at all. The framework will need to consider the tensions between the climate change and fuel poverty ambitions, as acknowledged in the strategy. The theory of change will allow these tensions to be described and included within the monitoring and evaluation framework and ensure that any unintended consequences are captured.

**63. What are your views on how lessons learned from heat and energy efficiency policy and programmes should be shared with the sector and key stakeholders to ensure that Scotland benefits from the public investment outlined above?**

We very much welcome the proposal to share lessons from heat energy efficiency policy and programmes with the sector and key stakeholders. This could be done through the publication of programme evaluations, together with events and webinars where results could be shared, discussed and implications considered.

**64. Finally, is there any other information you would like to provide us with that is relevant to the development of Scotland's Heat in Building Strategy?**

No, there is no other information that we would like to provide.