

# **Heat in Buildings Strategy**

## **Fairer Scotland Duty Assessment Summary**

**November 2021**

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**Title of Strategy: Heat in Buildings Strategy ('the Strategy')**

## **Summary of aims and expected outcomes of strategy, proposal, programme or policy**

### The Heat in Buildings Strategy

The Heat in Buildings Strategy sets out a pathway to zero emissions buildings by 2045 and details a series of near-term actions, as well as a range of further, longer-term commitments to accelerate the transformation of the nation's building stock. It sets out the principles we will apply to ensure our actions to decarbonise heat do not have a detrimental impact on fuel poverty rates.

The Strategy sets out a vision for over 1 million homes in Scotland to convert to zero emissions heating by 2030 and the equivalent of 50,000 non-domestic buildings. Emissions from heat in buildings will have to fall by 68% by 2030 as compared to 2020. To maintain progress towards our statutory emissions reduction targets, heating installations must scale up to provide at least 124,000 systems installed between 2021 and 2026. The installation rate will need to peak at over 200,000 new systems per annum in the late 2020's which is above the natural replacement rate for boilers.

In terms of energy efficiency, the Strategy sets out that where technically and legally feasible and cost-effective, by 2030 a large majority of buildings should achieve a good level of energy efficiency, which for homes is at least equivalent to an EPC Band C, with all homes meeting at least this standard by 2033.

The Strategy is aligned with wider Scottish Government policy on housing, energy, and climate change. The actions it sets out are reflected in our Housing to 2040 Strategy, which also presents further details on how Scotland's housing can support achievement of our net zero ambitions, whilst also delivering against wider objectives.

The publication of the Heat in Buildings Strategy is only the first step. As we roll out its actions, we will continue to build the evidence base and apply that knowledge to our policy design and to our programmes, mitigating risks of unintended consequences, tracking progress, and learning by doing in order to adjust where unintended consequences nevertheless arise.

The Heat in Buildings Strategy forms the foundation of our ongoing work, which will build on the insight and evidence generated by the consultation and wider input. Our next steps include:

- We have committed to publish a refreshed Energy Strategy and an Energy Just Transition Plan in Spring 2022. This will allow us to further refine our approach to heat in buildings, ensuring a coherent whole-system view and further embedding our evolving policies within our wider approach to delivering on a just transition.
- We will set out our approach to eradicating fuel poverty in the Fuel Poverty Strategy by the end of 2021.
- We will develop a bespoke Public Engagement Strategy for heat in buildings.
- We will develop our approach to heat in islands and remote rural contexts in our forthcoming Islands Energy Strategy in 2022 (which will complement the existing National Islands Plan).
- We will co-produce with the sector a Supply Chain Delivery Plan focussed on the development of energy efficiency and zero emissions heat in the buildings supply chain in Scotland.
- We will establish a Green Heat Finance Taskforce by the end of this year.

Transforming Scotland's building stock will create numerous opportunities for investment and regeneration as well as the realisation of wider social, environmental and health outcomes. The Strategy sets out a series of wider outcomes that will benefit Scotland's people and places. These Heat in Buildings outcomes align with our National Performance Framework and will guide decision making and support the development of a holistic people centred approach to the transition ahead:

1. Heating our homes and buildings no longer contributes to climate change
2. The cost of heating our homes and businesses is affordable and those occupying them have a high comfort level
3. We have reduced our demand for heat and poor energy efficiency is no longer a driver of fuel poverty
4. The systems we use are smart and resilient and provide us with a reliable source of heat
5. We have a secure supply chain with high value local sustainable jobs across Scotland and people have been helped to transition to new, secure jobs as part of a just transition
6. Our indoor and outdoor spaces are filled with cleaner air
7. Our heating systems enable and efficiently use Scotland's renewable energy resources
8. Electricity and non-electrical fuels are produced from sustainable sources in a way which is consistent with net zero emissions and biodiversity targets
9. Our heating systems enable the flexible and stable operation of our energy networks

## **Summary of Evidence**

Evidence was gathered from responses to a public consultation on the draft Heat in Buildings Strategy. 178 respondents submitted a response. Online consultation events were also held with stakeholders invited from a range of representatives from various sectors including the environmental and energy sectors, local authorities, fuel poverty, social landlord representative bodies, consumer advice and information bodies, stakeholder groups and the building and construction sector.

Evidence was also gathered via an internal workshop; from the Scottish Household Survey; Scottish House Condition Survey and a social research project on the likely equality implications of heat decarbonisation in buildings for consumers in Scotland. This research looked at each of the protected characteristics, and has also informed an Equality Impact Assessment (EQIA) which was carried out separately.

This evidence suggested the potential for the following inequalities of outcomes in relation to the Heat in Buildings policy area:

### **Access to information and financial services**

Households who are on a low income or in fuel poverty may not have savings to pay for/contribute towards decarbonisation measures. They also may not be able to access loans or payment plans to allow them to do so due to financial exclusion.

People experiencing socio-economic disadvantage are more likely to find it difficult to access financial services as they are often categorised as high risk for some products such as loans, and may already have debts that are difficult to manage. At the same time, they are also less likely to have savings to buffer any new financial pressures, such as the cost of a new heating system. This financial exclusion creates financial problems in a number of ways, including exclusion from affordable loans leaving people who need a loan with no option but to use high-interest credit; lack of savings making people vulnerable to financial shocks and not having a bank account prevents them from paying by direct debit. As an example, most utility suppliers charge more for using other methods of payment, such as pre-payment meters, pay-point cards in convenience stores, postal orders or cash.

Those particularly vulnerable to financial exclusion include: housing association tenants; young people not in employment, education or training; those leaving care; lone parents and divorced people; disabled people, those with mental health problems and carers; people living in isolated or disadvantaged areas; prisoners, ex-offenders and families of prisoners; members of ethnic minorities; migrants; asylum seekers and refugees; homeless people; older people; women; people with a Post Office Card Account or basic bank account; people with low incomes.

Some groups are particularly vulnerable for reasons which are separate from, or interact with, having a low income, such as disabled people and older people. Nevertheless, low income is an exacerbating factor for all groups.

In some current approaches to low and zero emissions schemes, the benefits have generally flowed to those who are financially better off. For example, both the Renewable Heat Incentive (RHI) and Feed in Tariff (FIT) are usually accessed by

those with higher incomes reflecting the fact that they are more able to afford the upfront costs and that their property types and tenure make them more suitable for such initiatives.

There are also concerns about the design and overall impact of GB schemes targeting households on a low income and/or vulnerable to the effects of cold. The current Energy Company Obligation ((ECO) and Warm Home Discount (WHD) benefit some low income households. However the costs of these schemes are applied to all household electricity bills. Typically these charges are applied on a volumetric basis and no account is taken of households' ability to pay or needs for energy (e.g. electric heating rather than gas, larger households, illness etc.). These charges on bills are regressive, increase numbers of households in fuel poverty and deepen fuel poverty.

The Committee on Fuel Poverty (CFP), citing UK-wide data, have highlighted that up to 1.5 million households struggling with fuel poverty do not automatically qualify for the Warm Home Discount on their bills. The CFP made the comments in response to a government consultation, pointing out that almost half – 46.1 per cent – of households currently in fuel poverty are not in receipt of benefits, and thus don't qualify for an automatic discount.

Consultation respondents to the Heat in Buildings Strategy suggested that energy suppliers should work with government to educate and inform customers on the benefits of adopting low carbon heating and the choices available to them.

In a UK study, most fuel poor participants would not consider borrowing money to increase the energy efficiency of their homes, with debt seen as a last resort. Access to the internet may affect peoples' ability to obtain information on their energy choices, the support available, local suppliers of zero carbon technologies and in other ways impact their ability to participate in installing, and getting the most out of zero and low carbon heating systems and energy efficiency measures.

The proportion of households in Scotland with internet access was at 88 per cent in 2019. Household internet access increased with net annual household income. Home internet access for households with a net annual income of £10,000 or less was 65 per cent in 2019, compared with almost all households (99 per cent) with a net annual income of over £40,000. Access differed by area of deprivation: 82 per cent of households in the 20% most deprived areas in Scotland had internet access at home compared with 96 per cent of households in the 20% least deprived areas. Internet access also varied by tenure: 79 per cent of those in social rented housing had internet access compared with 91 per cent of households who owned their home. We need to ensure that all consumers have access to information and choice of zero and low carbon heating systems and energy efficiency measures.

### **Education and employment**

Poorer skills attainment associated with socio-economic disadvantage may influence people's ability to gain secure and well-paid employment. These groups of people may be more likely to miss out on job opportunities created through the heat

transition. They may also experience greater difficulty in understanding the transition to zero emissions buildings and the energy systems being introduced to their homes.

Research shows that the benefits of decarbonising heating in, and improving the energy efficiency of, residential buildings is linked to employment opportunities.

Indoor temperature is linked to productivity, and can therefore impact upon the ability of school-age children to carry out homework or study for exams at home, which can have a knock-on effect on their educational attainment, and ultimately their employment opportunities.

There is evidence that other links between educational attainment and warm homes exist. For example, avoidance of physical (particularly respiratory health in children) and mental stresses through warmer and more comfortable homes has been linked to decreased absenteeism from school by children and from work by adults; with potential impacts on academic performance, labour productivity and earning power.

Living in an energy inefficient home is costly, and the poorest housing is often occupied by the most vulnerable people, and households experiencing fuel poverty face difficult decisions about how much to spend on heating and how much to spend on food. A more energy-efficient home could therefore lead to better nutrition for people vulnerable to fuel poverty - by making fuel bills more affordable a 'heat or eat' situation can be avoided.

Improved nutrition could subsequently lead to improved concentration and improved chances of educational attainment for school-age children, and better performance (and therefore future employment opportunities) for adults.

However, there are also risks that low and zero emissions heating will increase running costs in some settings as a result of levels of insulation, size of property, heating system efficiency and energy prices.

### **Housing tenure**

People who experience socio-economic disadvantage may be more restricted in their choice of housing tenure and neighbourhood. For example, evidence suggests that those on lower incomes are less likely to be home owners. This excludes them from the benefits associated with owning property, such as a greater level of security and an additional source of income for those that rent out property.

A higher proportion of single parents and people who are unemployed and seeking work live in socially rented properties than in other housing tenures.

There are differences in the proportion of people who report that they are managing well financially depending on the tenure of their property: owned outright (75%), owned with mortgage (61%), private rented sector (45%) and social rented sector (28%).

In terms of relative poverty after housing costs (the commonly used poverty indicator in Scotland), 7% of people buying with a mortgage and 14% who owned outright

were in poverty. This compares to 39% for those living in social housing and 34% for those in private rented housing.

However, due to the size of this tenure type, home-owners accounted for 370,000 (36%) of all people in relative poverty after housing costs in 2017-2020, i.e. more than in private rented housing (250,000 or 24%) and slightly lower than in social rented housing (410,000 or 40%).

While responses to the consultation on the draft Heat in Buildings Strategy identified that tenants may be impacted by increases in rent in the social sector resulting from the requirement to achieve EPC band B by 2032, social rent increases are monitored by the Scottish Housing Regulator.

Evidence suggests tenants who might want to engage in the heat transition might not be able to if their landlord is unwilling to engage or invest as the property owner. The length of time a tenant has lived in, or intends to live in, a property also acts as a barrier to engagement with improving their home and affects their willingness to engage in updating their heating system. Tenants may also face rent increases, depending on how landlords decide to cover costs, which could push some into rent poverty and, as fuel poverty is measured after housing costs, any rent increases could also hamper efforts to alleviate fuel poverty.

Any increase in property prices related to requirements to finance upgrades and heating system conversion may also make it more difficult for those renters who are trying to buy property. Research on the relationship between property prices and energy efficiency in England and Wales has found that properties with a higher EPC rating achieve a higher sale price. This is a positive impact for property owners, however it may have negative implications for renters and exacerbate existing housing inequalities experienced by socio-economic disadvantaged households.

The socially rented sector enjoys relatively high levels of energy efficiency. Twenty-four percent of Scotland's domestic dwellings are social housing, and over half (56%) of this social housing is in band C or better under SAP 2012, compared to two-fifths (40%) in the private rented sector and owner-occupied sector (41%). This reflects the finding that nearly half of Scottish households with weekly income of £400-499 live in a EPC rated property of C or above (Scottish House Condition Survey, 2019).

## **Location**

Evidence also suggests that location of households across Scotland can influence the level of social housing available, the prevalence of fuel poverty rates, health outcomes and rates of those who can manage well financially.

Differences in housing costs between areas can limit the neighbourhoods that people on lower incomes can live in. For example, while not all people living in deprived areas will be on low incomes, they are more likely to be. In 2019, 47% of socially rented households were in the most deprived areas compared to 17% of privately rented households and 12% of owner-occupied households. This has been increasing since 2013.

In 2019, the fuel poverty rate for rural (29%) households was higher than for urban (24%) households. Levels of fuel poverty for remote rural households are higher than for all other urban rural locations and have increased by 9 percentage points from 33% in 2018 to 43% in 2019. This increase reflects the high proportion of rural households which use electricity and other fuel types (such as solid mineral fuels) as their primary fuel type and the associated increase in fuel prices for these fuel types between 2018 and 2019.

The latest update of the Scottish Index of Multiple Deprivation (SIMD) 2020 has been published by Scotland's Chief Statistician. This shows:

- the least deprived area is in Stockbridge, Edinburgh. This represents a change since SIMD 2016, when the least deprived area was in Giffnock
- the most deprived area is in Greenock town centre. This represents a change since SIMD 2016 and 2012, when the most deprived area was identified as Ferguslie Park, Paisley
- the area with the largest local share of deprived areas was Inverclyde, with 45% of data zones among the 20% most deprived areas in Scotland
- Glasgow City has similar deprivation levels at 44%
- other local authorities with relatively high levels of deprivation include North Ayrshire and West Dunbartonshire at 40% and Dundee City at 38%
- Na h-Eileanan an Siar, Shetland and Orkney have no areas among the 20% most deprived in Scotland, however, this does not mean there are no people experiencing deprivation living there
- over half of people on low income do not live in the 20% most deprived areas in Scotland
- levels of deprivation have fallen in Glasgow City, Renfrewshire and City of Edinburgh compared to SIMD 2016. Glasgow City showed the biggest fall, from 48% of data zones in the 20% most deprived areas in Scotland, to 44%
- levels of deprivation have increased in Aberdeen City, North Lanarkshire, Moray, East Lothian, Highland and North Ayrshire. None of these increases are greater than 2 percentage points

The National Islands Plan acknowledges that extreme fuel poverty rates are higher for most of the island authorities and provides a framework for action in order to meaningfully improve outcomes for island communities.

We will publish an Islands Energy Strategy in 2022 with a focus on resilience and sustainability of island energy systems for the future, and on supporting islands' transition to net zero emissions.

## **Health**

Living a cold home can have negative impacts on health. Energy efficiency measures (e.g. insulation, draught proofing) reduce heat loss in a building and therefore reduce cold areas where moisture can condense and create damp, mouldy conditions. For example, it was reported in an evaluation of the Scottish Government's Energy Efficient Scotland (EES) pilot programme that installation of energy efficiency measures led to increased internal temperatures and a reduction in people feeling cold over winter. A significant improvement in housing problems such



as damp, mould and condensation was also found. A fabric first approach may therefore have a positive impact by making it easier for people to heat their homes, and tackling health inequalities in Scotland associated with cold homes. Housing improvements are considered to have most powerful impact when targeted at vulnerable or disadvantaged groups as they are more likely to live in poor quality housing.

Housing is recognised as having an important influence on health inequalities in Scotland, with key pathways through housing quality and fuel poverty. Cold and damp homes may cause or exacerbate a number of health outcomes, primarily excess winter mortality, respiratory health conditions and mental health problems.

Health, housing quality and fuel poverty are therefore closely linked: cold and damp homes are harder and more expensive to heat, and this has implications for the health and resources of people living in them. Income is often key to this relationship as housing quality and housing affordability are closely linked. People with more wealth can typically afford a 'better' place to live, which are generally more efficient and cheaper to heat, whereas deprived and vulnerable households – especially those who do not have access to social housing - are more likely to live in energy inefficient housing, and less likely to have the resources or resilience to deal with the negative impacts of cold homes and reduced income.

Caution is required around the unintended consequences of retrofitting where a lack of ventilation caused negative implications for health and indoor air pollution.

## **Poverty**

Internal workshops highlighted that some groups in fuel poverty, or income poverty, live week-to-week and cannot prioritise heating. Consideration of assessing the benefits of a new heating system for those groups in terms of cost, efficiency and operation was highlighted.

Consultation responses on the draft Heat in Buildings Strategy highlighted a concern that heating costs are likely to rise for a significant proportion of consumers who opt for low and zero emission heating under current market conditions, and that the cost of installing and running low and zero emission heat systems could tip some households at the margins of affordability into financial stress. Groups identified as worthy of particular consideration included households just below the radar of interventions that are firmly targeted on those already clearly in fuel poverty, and those experiencing in-work poverty.

It is estimated that 24.6% (around 613,000 households) of all households are in fuel poverty, with 12.4% or 311,000 households living in extreme fuel poverty. Fuel poverty is increasingly recognised as a multidimensional complex phenomenon, and households may move in and out of fuel poverty as conditions and circumstances change. It is often linked to elements of socio-economic disadvantage.

It is reported that 73% of fuel poor households are also income poor. Households that are in both income poverty and fuel poverty tend to live in more energy efficient dwellings than other fuel poor households, potentially because of high energy efficiency standards in the social rented sector. They are more likely to use gas for heating, live in homes on the gas grid and live in urban locations compared to other

fuel poor households. These characteristics point to low income as a key reason for their experience of fuel poverty.

Conversely, households who are not in income poverty but experience fuel poverty have a higher likelihood of living in low energy efficiency properties, using electricity for heating, and living in rural areas compared to those households in income and fuel poverty and Scotland overall.

In 2019, the fuel poverty rate was higher for rural households (29%) than for urban households (24%), while levels of fuel poverty for remote rural households (43%) were significantly higher than for all other urban rural locations. Levels of extreme fuel poverty were also higher in rural areas (19%) compared to urban areas (11%) with extreme fuel poverty rates significantly higher (33%).

An evidence review on the lived experiences of fuel poverty in Scotland suggests that socio-economically disadvantaged households experiencing fuel poverty are not always eligible for help. For example, disabled people who have not been able to access the disability benefits used as eligibility criteria, elderly people with small occupational pensions, and self-employed people who struggled to prove eligibility in circumstances where their income fluctuated significantly by month and year.

Lived experience research into fuel poverty in Scotland also highlighted that tenants in fuel poverty, whether private or social, can feel that they have little control over replacing or changing their heating system as decisions are made by their landlord. These barriers were more likely to be present for households in extreme fuel poverty and echo findings in the Evidence Review.

Fuel type has implications for fuel poverty. The levels of fuel poverty among households using electricity as their primary heating fuel have remained the highest, at 43%, compared to households using gas (22%), oil (28%) and other fuel (31%) as their primary heating fuel. A key implication of this is that there is a strong link between electricity for fuel and fuel poverty. This suggests that switching to zero and low emissions heating systems that use electricity may exacerbate fuel poverty.

### **Summary of assessment findings**

The Heat in Buildings Strategy is not directly aimed at any particular socio-economic group, but is aimed at the homes they live in and buildings they visit. It is anticipated that in the long term the Strategy will impact positively on all sectors of society through the provision of buildings that are easier, cleaner and greener to heat.

However, in the short term issues such as the installation and running costs of low and zero emissions systems might have an effect on certain groups who experience socio-economic disadvantage, including those who experience inequality of outcome in terms of:

- Access to information and financial services
- Education and employment
- Housing
- Location

- Health
- Poverty

### **Inequality of outcome: Access to information and financial services**

There is opportunity to reduce inequalities of outcome through delivery of the Heat in Buildings Strategy by ensuring that financial incentives offered to people to install zero and low carbon heating systems and energy efficiency measures are designed to support all citizens, including vulnerable groups who may be suffering from financial exclusion.

#### Financial support and advice

- Our advice and support programmes will continue to support energy efficiency measures, and for those households requiring additional support these services will continue to provide help on tariff switching, energy behaviours and make onward referrals to ensure that all households, including those with socio-economic disadvantage receive the support for which they are eligible.
- We will continue to invest in Home Energy Scotland improving our digital presence and extending the support to provide more in-depth support. We will offer interest-free loans for heat and energy efficiency technologies via Home Energy Scotland, with an additional commitment to run our cashback scheme (or a grant replacement) until at least 2023 to help households overcome the upfront cost of taking early action.
- Scottish Government funded loans are available to landlords to improve the energy efficiency of properties and meet minimum standards. The loans are administered by Home Energy Scotland and are available to registered private landlords for improvements to domestic dwellings which are listed on the Scottish Landlord Register, are not a holiday or second home, are registered with the Scottish Assessors Association as paying domestic council tax rates, are not under construction, and are currently occupied by at least one tenant or will have at least one tenant in place within 30 days of the payment of the loan. Loans of up to £15,000 are provided, split across different types of works. Funding is also available for up to two home renewable systems per property, worth up to £17,500 in total, plus an energy storage system up to a maximum of £6,000.
- Warmer Homes Scotland offers material measures to support those eligible under fuel poverty proxies (receipt of benefits, age, broken heating systems), providing fabric measures such as insulation as well as heating systems and small scale renewable measures. More than £150 million has been invested through the scheme since its launch in September 2015 helping over 24,000 households throughout Scotland. This year we have increased funding for Warmer Homes Scotland to £50 million (an increase from £32 million in 2020-21). The successor scheme to Warmer Homes Scotland will see scaled up investment in order to offer a greater proportion of zero-emissions heating systems and to extend scheme eligibility criteria to ensure we are capturing the fuel poor client group.

- We have commissioned independent advice on the concept of Heat as a Service and its potential as a route for decarbonisation in Scotland. The Heat as a Service model has similarities with the way in which many consumers choose to lease a mobile phone or car, with the upfront ownership costs of a new low or zero emission heating system being recouped over a period of time through regular payments, sometimes including operating and maintenance costs. The research suggests that Heat as a Service could help overcome the two main barriers that discourage people from installing low-carbon heating systems: concerns about cost and comfort. We will continue to explore how this model might support heat decarbonisation by enabling consumers to purchase or run low or zero emission heating systems, while delivering the energy outcomes consumers want.
- We will ensure that the remit of the forthcoming Green Heat Finance Taskforce will consider the challenges of financial exclusion.
- To support maximising incomes we are calling on the UK Government to review levy funding for the Energy Company Obligation and the Warm Home Discount and to work with Scottish Ministers to bring these together to establish a single, flexible Scottish Fuel Poverty scheme in order to maximise benefits.
- We will continue to work with key stakeholders, such as local authorities and energy suppliers, to ensure that vulnerable and fuel poor households in Scotland receive the help they need from these GB schemes.

#### Engagement and future delivery

- We will continue to draw advice from stakeholders and advisors through a variety of channels, building on our productive Heat Decarbonisation External Advisory Group. This group will be adapted as part of our revised governance arrangements for the Heat in Buildings Strategy and we will ensure that those from disadvantaged socio-economic groups are represented in this process.
- We will ensure that challenges and opportunities identified in this assessment are recognised through the development of our Public Engagement Strategy for Heat in Buildings. The forthcoming National Public Energy Agency will provide leadership and coordination to deliver on our heat decarbonisation targets, which will include public engagement across the breadth of society in Scotland to ensure that people are aware of and understand the changes that are necessary, and can access the right support at the right time to meet their needs. The Public Engagement Strategy will provide the framework to guide how the Agency can best achieve this in practice. Further details will be set out in due course.
- We are also working with the Energy Consumers Commission, Consumer Scotland and a range of Scottish consumer representative organisations to ensure that issues of consumer detriment are identified and addressed,

focussing on consumer understanding, accessibility, costs, redress, and support for vulnerable consumers.

### **Inequality of outcome: educational attainment, skills and employment**

There is opportunity to reduce inequalities of outcome through delivery of the Heat in Buildings Strategy by ensuring that supply chains provide upskilling and employment opportunities to those with lower socio-economic backgrounds. This could be done as part of the heat transition through apprenticeships, retraining and upskilling within the supply chain. The increased demand for skills through the heat in buildings transition provides an opportunity to attract new courses and training opportunities for young people, as well as those transitioning from jobs in high fossil fuel sectors of the economy.

- We have partnered with Scottish Renewables and Skills Development Scotland to undertake a Heat in Buildings Workforce Assessment Project. This will build an evidence base in support of the wider skill requirements and opportunities in the heat in buildings transition, including the timings of when skills are required, how best to support the transition opportunity from other industries, support training and the provision of local jobs across Scotland, as well as the development of apprenticeships in this area. Part of this work will consider the skills and training opportunities for socio economically disadvantaged groups.
- We will continue to use our government led programmes, such as Warmer Homes Scotland, to support apprenticeships, and will look to expand our support for apprenticeships through our existing funding programmes. Since Warmer Homes Scotland was launched in September 2015 over 140 apprenticeships have been made possible, 618 new jobs created and 2,671 training and up-skilling opportunities across Warmworks and the supply chain have been made possible.
- We will take forward a Heat in Buildings Supply Chain Delivery Plan by Summer 2022, which will focus on strengthening the broad supply chains needed to delivery energy efficiency and zero emissions heat in buildings at the pace and scale we need. Part of this work will consider the skills and training opportunities for socio economically disadvantaged groups.

### **Inequality of outcome: Housing tenure**

- We will take steps to ensure that everyone, including owner occupiers, tenants, private and social landlords, SMEs and communities, has the opportunity to help shape the decisions we take at a national and local level on how we heat our homes and buildings in the future. We will consult extensively with stakeholders and citizens as we develop the regulations and delivery programmes proposed in this Strategy.

- As set out in the Strategy, social housing is already paving the way for energy standards. The first milestone, the Energy Efficiency Standard for Social Housing (ESSH1) was based on a minimum energy efficiency depending on house and fuel type (specified SAP ratings within bands C or D). It was due to be met in December 2020. The Scottish Housing Regulator reports that 89% of social rented homes have met the 2020 milestone and social landlords (local authorities and registered social landlords) are working towards the second ESSH2 milestone for all social housing to meet, or be treated as meeting, EPC B, or be as energy efficient as practically possible, by the end of December 2032. We will review the ESSH2 standard with a view to strengthening and realigning it with wider net zero requirements so that we can work in partnership with social housing to lead the transition to zero emission buildings and avoid the need for further retrofit in the future. The Zero Emissions Social Housing Taskforce (ZEST) recommended that this review be undertaken sooner than 2023, the date proposed in the draft Strategy. We are currently considering the report and recommendations and will respond in due course.
- The ESSH2 milestone does not change landlords' responsibility to manage their investment policy to ensure it is cost-effective, especially where substantial additional investment has a potential impact on rents. Our guidance for landlords makes it clear that we do not expect landlords to invest in measures that are unaffordable or where the costs are disproportionate to the benefits to tenants. Landlords have broad discretion to decide if potential energy efficiency measures are too expensive or are not value for money in their stock. (See section 8 at Energy Efficiency Standard for Social Housing (ESSH): guidance for social landlords March 2021 - gov.scot ([www.gov.scot](http://www.gov.scot)))
- The Strategy proposes a new all-tenure zero emissions heat standard, as well as minimum energy efficiency standards for private-rented, owner-occupier and social housing. We will also develop a bespoke approach to regulating for improvements in mixed-tenure and mixed-use buildings.
- We are reviewing the recommendations from the Zero Emissions Social Housing Taskforce (ZEST). The social housing sector has shown strong leadership on improving fabric energy efficiency, which has supported tenants to reduce their energy bills, and contributed carbon savings. This early leadership puts the sector in a position to champion zero emissions heat measures in the most efficient parts of its stock. However, fabric improvement alone will not get us close to our targets for net zero and we need to develop a stronger focus on heating system change. This is the case for all other tenures, where we propose to regulate to require installation of zero emissions heating systems as well as energy efficiency upgrades, where within our competence.
- We remain committed to working with the social housing sector and encourage the sector to take full advantage of the support available including through our Social Housing Net Zero Fund, through which we are investing £200 million of capital funding to support decarbonisation of social housing

over the course of this parliament. We will also consider how this financial support for zero emissions heating will work in tandem with our other delivery programmes such as our Area Based Schemes.

- In addition, we will invest £3.44 billion to deliver more social and affordable homes over the period 2021-2022 to 2025-2026. We will continue to support affordable housing providers who wish to install zero emissions heating systems in these homes ahead of regulatory requirements in 2024.
- We are working with the sector to introduce regulations in 2025 to require all private rented sector properties to reach a minimum standard equivalent to EPC C, where technically feasible and cost effective, at change of tenancy, with a backstop of 2028 for all remaining existing properties, in line with the direction provided by the Climate Change Committee (CCC).

### **Inequality of outcome: Location**

We acknowledge that the transition to zero emissions buildings may look different in different communities and require approaches tailored to place. It will be important for local communities to shape and be involved in decisions about solutions that are most appropriate for their local area.

- Consideration will be given to the role of community renewables and benefits in helping to address socioeconomic disadvantage. Our new CARES programme focuses on supporting communities to work together to address and champion heat decarbonisation on a local level. Through CARES we are working to understand further the models and solutions most appropriate for communities in Scotland.
- Our Local Energy Policy Statement sets out clear principles to guide local energy planning and community engagement.
- Local Heat & Energy Efficiency Strategies (LHEES) will provide a long-term framework for taking an area-based approach to planning and delivery of the heat transition. LHEES will enable a locally-tailored approach. These Strategies also form a basis for local public engagement and will be in place for all local authority areas by the end of 2023.
- Since 2013, the Scottish Government has provided £470 million funding for locally designed and delivered Area Based Schemes (ABS). ABS projects have benefitted over 100,000 households living in or at risk of fuel poverty across Scotland.
- ABS funding enables local delivery partners to offer measures at no cost or a reduced cost to owner occupiers and private landlords with fewer than four properties (i.e. as grant-in-aid). By combining investment by private and social landlords, ECO finance and owner occupiers, ABS projects have been particularly successful in delivering improvements for multi-occupancy properties such as flats and tenements, as well as whole streets of terraced and semi-detached housing.

- In line with our commitments in the Programme for Government, the Scottish Government has increased our annual investment in local ABS projects to £64m in 2021-22 (from £55m in 2020-21). We have increased our funding in 21/22 to enable more of these households to benefit from a 'whole house retrofit' that includes low carbon heating and other measures, such as installing solar PV panels to reduce electricity bills.
- Local ABS projects are designed and delivered by councils, in conjunction with utility companies and local delivery partners, targeting fuel poor areas to provide energy efficiency measures to a large number of Scottish households and help reduce fuel poverty. Overall funding allocations to councils are based upon a needs-based funding model agreed with COSLA.
- The model reflects the percentage of fuel poor households within a council area; the percentage of the total LA area population which is fuel poor; % of total LA area population experiencing extreme fuel poverty (10%); each LA's share of properties with uninsulated solid walls; and LA's share of dwellings with uninsulated hard-to-treat cavity walls.
- We also recognise that the costs of delivering energy efficiency measures are higher in remote rural and island areas. Councils serving remote rural/island communities can design projects that deliver grant-in-aid worth an additional £2,000 per household for insulation measures and a further £2,000 in uplift for zero carbon heating and microgeneration measures.
- We are also working in collaboration with the Scottish Cities Alliance and the seven cities on the opportunities to accelerate activity at pace to ensure the Scottish cities cumulatively play their role in meeting our heat decarbonisation and energy efficiency ambitions whilst maximising the economic and well-being outcomes across cities.
- The National Islands Plan will:
  - Review how delivery schemes can work better locally and review funding for island communities.
  - Develop a remote rural, remote small town and island Minimum Income Standard uplift, with the uplift for island areas to be determined separately.
  - Produce an Island Community Impact Assessment (ICIA) on the final Fuel Poverty Strategy, ensuring that representatives from island local authorities are fully involved in its development.
  - Carry out research and analysis to meet the requirements of the Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act 2019 that will also enhance our understanding of the costs of living faced by families living in island communities.
- We will also publish an Islands Energy Strategy in 2022 with a focus on resilience and sustainability of island energy systems for the future, and on supporting islands' transition to net zero emissions.



## **Inequality of outcome: Health**

There are a number of positive health impacts that actions from the Strategy may provide. For example, a shift away from fossil fuel removes combustion and therefore the risk of carbon monoxide poisoning. Efforts to improve energy efficiency and heating in buildings could positively impact on infant physical development, long-term physical and mental health and education (with fewer missed days at school due to illness). Moving towards zero emissions heating technologies such as heat pumps can also provide a more constant heating regime for a home or building due to the operational requirements of a heat pump. This may also benefit occupants by providing more consistent levels of comfort.

However, if a property is not kept well ventilated through construction, technological or natural means, energy efficiency measures which improves airtightness can lead to increased indoor air pollutants, risk of overheating in the summer months and rise in humidity, which can result in increased dust mites and mould impacting respiratory conditions and allergies.

### Ventilation

- The Strategy recognises that it will be important to understand the need for passive measures, such as ventilation and shading, that could be applied to buildings during the course of improving their fabric efficiency. It will also be important to understand the need for, and role of, zero emissions heat systems that are capable of also providing cooling, such as reversible heat pumps.

### Quality Assurance and skills standards

- We will adopt a whole house approach based upon the PAS 2035/30 standards as part of our Heat in Buildings delivery programmes.
- We will consider using the UK Government endorsed TrustMark quality assurance framework.
- We will continue to ensure that microgeneration measures supported through our programmes are carried out by an MCS certified installer.

### Buildings Standards

- In parallel with development of the New Build Heat Standard, we are reviewing energy standards set through building regulations, to deliver further improvements in building energy performance. This will include very high levels of building fabric performance in our new homes, avoiding the need for costly retrofit in the future, contributing towards removing poor energy efficiency as a driver of fuel poverty, and making homes more affordable to heat.

### Zero Emissions Heat Standard

- The Strategy proposes a new all-tenure zero emissions heat standard, as well as minimum energy efficiency standards for private-rented, owner-occupier

and social housing. We will also develop a bespoke approach to regulating for improvements in mixed-tenure and mixed-use buildings.

## **Inequality of outcome: Poverty**

### Fuel Poverty

As we address the damaging climate change impact of heating our homes and buildings with unabated fossil fuels, we must also continue to tackle the social inequalities that are all too prevalent in our housing sector, and deliver a just transition. In particular, we must redouble our efforts to end fuel poverty and the blight of unaffordable heating. This is challenging as many zero emissions heating systems are more costly to install and can be more expensive to run than high emissions alternatives. We need to work together across sectors and jurisdictions to overcome these issues, and to deliver a just transition. We remain steadfast in our commitment to supporting those least able to pay in this transition, and in protecting those who are most vulnerable to any increase in costs.

A new Fuel Poverty Strategy setting out our approach to eradicating fuel poverty in Scotland will be published by the end of 2021.

### Energy efficiency

- High standards of energy efficiency are essential to reduce the overall demand for energy. Alongside energy saving behaviours these measures can help to ensure running costs remain affordable. We will continue to take a fabric first approach as it underpins the successful roll out of low and zero emissions heating, as well as being an important aspect of tackling fuel poverty.

### Guiding principles

- We have published in the Strategy a set of guiding principles to underpin our commitment that no one is left behind in the heat transition, ensuring we only take forward actions where they are found to have no detrimental impact on fuel poverty rates, unless additional mitigating measures can also be put in place.

### Investment

- We are taking action through our delivery programmes to maximise the number of homes with households in fuel poverty achieving a level of energy efficiency equivalent to EPC C by 2030 and EPC B by 2040.
- We will continue delivery of energy efficiency investment to support fuel poor households in order to make homes warmer and easier to heat and to reduce the impact of any increased running costs from zero emissions systems, including recognising the distinct challenges faced by island, rural and remote communities, and seek to improve targeting so that we can reach more households in fuel poverty.
- We will continue our investment in Area Based Schemes, extending their reach to support higher numbers of households in or at risk of fuel poverty.

We are working closely with our local delivery partners to extend the reach of our projects, accelerating progress towards our net zero, targeting more households in extreme fuel poverty and most vulnerable to the effects of cold.

- We will procure a new, enhanced successor to Warmer Homes Scotland following expiry of the current contract in September 2022, which will provide support for fuel poor households at its heart, and embed increased support for zero emissions heating, adopting a zero emissions first approach which will support the reduction of household costs.

#### Consumer support

- We will continue to work with energy retailers to ensure households have access to the right tariffs, that tariffs tailored to zero emissions heating systems are available, and continue to press for customers with pre-payment meters to access similar tariffs to direct debit customers.

#### Evidence

- We continue to build the evidence base on the interactions between our fuel poverty, child poverty and climate commitments, and are applying that knowledge to our policy design and to our programmes, mitigating any risk of unintended consequences, and tracking progress and learning by doing in order to adjust immediately where unintended consequences nevertheless arise.

The Scottish Government will undertake the mitigating actions outlined within this FSD and in noting the high-level nature of the Heat in Buildings Strategy, will require subsequent delivery programmes and regulatory legislation to have regard to the Fairer Scotland guidance and undertake additional FSDs as relevant.

#### **Sign off**

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