

Policy and Sustainability Committee

10.00am, Tuesday 20 April 2021

Scottish Government Heat in Buildings Strategy Consultation

Item number
Executive/routine
Wards
Council Commitments

1. Recommendations

- 1.1 It is recommended that the Policy and Sustainability Committee
 - 1.1.1 agree for the attached paper to be submitted as a Council response to the current consultation on the Scottish Government Draft Heat in Buildings Strategy

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Scottish Government Heat in Buildings Strategy Consultation

2. Executive Summary

- 2.1 This report provides a proposed Council response to consultation on the Scottish Government draft Heat in Buildings Strategy. Consultation on this strategy closes on 30 April 2021.
- 2.2 The report notes that reduction of emissions from heating, and the systems and energy used to provide it, are a crucial aspect of the Council's 2030 net zero target and a key consideration of the Net Zero 2030 Strategy work that is currently being developed for the city.

3. Background

- 3.1 The Scottish Government's draft Heat in Buildings Strategy updates the 2018 Energy Efficient Scotland Route Map and the 2015 Heat Policy Statement. It outlines the steps to reduce greenhouse gas emissions from Scotland's homes, workplaces and community buildings while removing poor energy performance as a driver of fuel poverty. It does not cover industrial processes.
- 3.2 This Strategy aligns with the Scottish Government's updated Climate Change Plan published in December 2020, which sets out a vision for transforming more than 1 million homes and an estimated 50,000 non-domestic buildings to be using low and zero emissions heating systems by 2030.
- 3.3 Reduction of emissions from energy, are a crucial aspect of the Council's 2030 net zero target, and the Council's Emissions Reduction Plan will set out a phased plan for reducing emissions from heating its operational estate. Heat networks, in combination with a range of heat and energy generation models, are also a key consideration in developing a Net Zero 2030 Strategy for the city and this is being informed by a range of work already underway.
- 3.4 The Council has established a position to primarily reduce energy demand through new high building standards and better insulation of buildings, and adopting a fabric first approach, which is in line with the ambition of this draft Strategy. This work is

being informed by the Scottish Cities Alliance energy efficiency workstream, for which Edinburgh is the lead city.

- 3.5 From September 2017 to March 2019, Edinburgh was one of 13 local authority areas that undertook a Scottish Government pilot scheme on Local Heat and Energy Efficiency Strategies (LHEES) with guidance produced for designing heat networks in challenging settings. The learning from this pilot is being applied as the Council considers the potential for developing heat network opportunities across the city, within the context of current and future development and retrofit activity, and as part of work to develop a city-wide local heat and energy generation strategy. This strategy will also look to apply learning from the Scottish Cities Alliance low carbon heat workstream and will be brought forward as part of the implementation of the city-wide Net Zero 2030 Strategy.
- 3.6 The Council's current Healthy Clean Cities programme, funded through Climate-KIC, will be utilised to explore heat and energy generation challenges as part of the 'tests of change' being scoped with Climate-KIC design partners. These will focus on energy efficient community retrofit and innovative approaches to heat and energy generation within the context of net zero place-making.
- 3.7 City Plan 2030, the Council's local development plan, identifies heat network opportunities and the Council is currently assessing the potential for heat networks with partners at sites including BioQuarter, Fountainbridge, Meadowbank and Granton.

4. Main report

- 4.1 A full draft Council response to this consultation is provided in Appendix 1 to this paper.
- 4.2 Key points from the submission are that the Council:
 - 1.1.1 Welcomes the strategy and is supportive of the principles outlined and the pathway set out.
 - 1.1.2 Notes the importance of the pathway described in the strategy to support a green and fair economic recovery from pandemic in Edinburgh through the creation of new green economy jobs and industries, as well as playing a key role in the city's transition to net zero.
 - 1.1.3 Notes and welcomes the potential for local authorities to play a significant role in meeting the aims of the strategy – as key delivery agents for Local Heat and Energy Efficient Strategies (LHEES) and related Delivery Plans, delivery agents for local Area Based Schemes, or as potential enforcement agents in the regulatory framework for zero emission buildings.
 - 1.1.4 Notes that such roles represent an expansion of activity beyond that currently undertaken by most local authorities and, as such, expresses concern regarding the potential cost to Councils and the significant resources required to implement the actions and targets established in delivering the Strategy

- 1.1.5 In particular, the Council notes that effective delivery of the strategy will require additional Scottish Government support for local authorities in the form of:
 - 1.1.5.1 Financial investment to meet the additional costs to Councils of carrying out the roles required by the strategy
 - 1.1.5.2 Support to build the capacity, skills, and knowledge needed to deliver the strategy to the required scale
 - 1.1.5.3 A supportive regulatory framework that provides Councils with the security needed to invest and innovate at the scale and speed required by the strategy
 - 1.1.5.4 Financial and regulatory support for Councils to explore commercial and joint venture opportunities for large scale heat networks and the long-term operation and maintenance of these heat networks.
- 4.3 With regard to broader questions raised in the consultation, the submission:
 - 1.1.6 Notes the 2045 target embedded in the draft strategy, and encourages Ministers to bring forward the target date from 2045 to 2030 to match the ambitious aims that have been set by local authorities in Scotland, including the City of Edinburgh Council, in recognising the climate emergency
 - 1.1.7 Recommends that effective delivery of the strategy will be dependent on Scottish Government action to:
 - 1.1.7.1 Develop and support suppliers to recruit skilled workers needed from 2024 onwards to install and commission new heating technologies
 - 1.1.7.2 Support development of well-functioning, well-regulated supply chains for heat network operators at the local authority level
 - 1.1.7.3 Develop a standardised specification of networks to improve economies of scale and help local authorities and developers avoid problems in connecting to district heating schemes.
 - 1.1.8 Notes the importance of targeted communications across all tenures and sectors to help Scotland's people understand what the heat transition means for them, what the timelines are, and what support is available. Local authorities, RSLs and community / third sector and non-government organisations in particular are well placed to support these public engagement activities.
 - 1.1.9 Notes that many private owners may struggle to fund the cost of energy retrofit upgrades required, and recommends that tailored financial support should be considered to support and incentivise property owners and landlords to make the required transitions
 - 1.1.10 Recommends that tailored support is developed to ensure that implementation of the strategy does not discriminate against any person in Scotland who shares a protected characteristic, or have an adverse impact on children's' rights and wellbeing.

- 1.1.11 Further recommends that additional measures are brought forward to ensure that people in or at risk of falling into fuel poverty, are protected from any cost impacts as a result of the zero emissions buildings transition.

5. Next Steps

- 5.1 Following approval by the Policy and Sustainability Committee, this consultation response will be submitted to the Scottish Government in advance of the closing date for consultation responses on 30 April.

6. Financial impact

- 6.1 There are no direct financial impacts associated with this report.

7. Stakeholder/Community Impact

- 7.1 The response has been drafted with reference to the Local Governance Review consultation response; the Scottish Parliament's Green Recovery Inquiry consultation response; the Scottish Parliament's Call for Views on the Heat Networks (Scotland) Bill consultation response; the Economy Advisory Board Consultation and the Edinburgh Climate Commission report endorsed by Committee.

8. Background reading/external reading

- 8.1 [Response to Heat Networks \(Scotland\) Bill](#) - Policy and Sustainability Committee, 6 October 2020
- 8.2 [Appendix of SEAP projects](#) - Policy and Sustainability Committee, 25 February 2020
- 8.3 [Energy Management Policy for Operational Buildings: Annual Report](#) - Policy and Sustainability Committee, 1 December 2020.
- 8.4 [Council response to Edinburgh Climate Commission and Sustainability Programme Update](#) - Policy and Sustainability Committee, 23 July 2020.

9. Appendices

Appendix 1: Consultation Response from the City of Edinburgh Council to the Scottish Government's draft Heat in Buildings Strategy - achieving net zero emissions

Appendix 1

Consultation Response from the City of Edinburgh Council to the Scottish Government's draft Heat in Buildings Strategy - achieving net zero emissions

Introduction and Summary

This is a timely consultation and the City of Edinburgh Council welcomes the opportunity to provide a response to the Scottish Government's draft Heat in Buildings Strategy, which sets out proposed actions for transforming buildings and the systems that supply their heat. The Council looks forward to continuing engagement with Scottish Government on the development of specific details for development in future iterations of this document.

In 2019, the Council set an ambitious target for Edinburgh to become a net-zero city by 2030. This commitment was recently embedded within the Council's new Business Plan as one of three priorities to guide the work of the organisation over the next three years – eradicating poverty, becoming net zero, and improving wellbeing.

As part of our drive towards net zero, the Council aims to ensure that Edinburgh's recovery from pandemic is focused on delivering for the long term good of the city – driving job creation through green and fair growth, empowering citizens, and using innovation to tackle climate change. This work programme presents strong synergies with the draft Heat in Buildings Strategy, and the Council is encouraged by the proposals included in the strategy to meet climate change targets, maximise economic opportunities, ensure a just transition to net zero, and address fuel poverty.

In summary, the City of Edinburgh Council

- Welcomes the strategy and is supportive of the principles outlined and the pathway set out.
- Notes the importance of the pathway described in the strategy to support a green and fair economic recovery from pandemic in Edinburgh through the creation of new green economy jobs and industries, as well as playing a key role in the city's transition to net zero.
- Notes and welcomes the potential for local authorities to play a significant role in meeting the aims of the strategy – as key delivery agents for Local Heat and Energy Efficient Strategies (LHEES) and related Delivery Plans, delivery agents for local Area Based Schemes, or as potential enforcement agents in the regulatory framework for zero emission buildings.
- Notes that such roles represent an expansion of activity beyond that currently undertaken by most local authorities and, as such, expresses concern regarding

the potential cost to Councils and the significant resources required to implement the actions and targets established in delivering the Strategy

- In particular, the Council notes that effective delivery of the strategy will require additional Scottish Government support for local authorities in the form of:
 - Financial investment to meet the additional costs to Councils of carrying out the roles required by the strategy
 - Support to build the capacity, skills, and knowledge needed to deliver the strategy to the required scale
 - A supportive regulatory framework that provides Councils with the security needed to invest and innovate at the scale and speed required by the strategy
 - Financial and regulatory support for Councils to explore commercial and joint venture opportunities for large scale heat networks and the long-term operation and maintenance of these heat networks.

With regard to broader questions raised in the consultation, the Council:

- Notes the 2045 target embedded in the draft strategy, and encourages Ministers to bring forward the target date from 2045 to 2030 to match the ambitious aims that have been set by local authorities in Scotland, including the City of Edinburgh Council, in recognising the climate emergency
- Recommends that effective delivery of the strategy will be dependent on Scottish Government action to:
 - Develop and support suppliers to recruit skilled workers needed from 2024 onwards to install and commission new heating technologies
 - Support development of well-functioning, well-regulated supply chains for heat network operators at the local authority level
 - Develop a standardised specification of networks to improve economies of scale and help local authorities and developers avoid problems in connecting to district heating schemes.
- Notes the importance of targeted communications across all tenures and sectors to help Scotland's people understand what the heat transition means for them, what the timelines are, and what support is available. Local authorities, RSLs and community / third sector and non-government organisations in particular are well placed to support these public engagement activities.
- Recommends that tailored support is developed to ensure that implementation of the strategy does not discriminate against any person in Scotland who shares a protected characteristic, or have an adverse impact on children's' rights and wellbeing.
- Further recommends that additional measures are brought forward to ensure that people in or at risk of falling into fuel poverty, are protected from any cost impacts as a result of the zero emissions buildings transition.

A 2045 Pathway for Scotland's Homes and Buildings

The 2045 net zero target

The City of Edinburgh Council recognises the scale of the national challenge at hand to shift all homes and buildings in Scotland to net zero by 2045. In recognition of the climate emergency facing Scotland, however, it is recommended that the target for net zero is

brought forward to 2030. Such a target would match the ambitious aims set by local authorities in Scotland, including the City of Edinburgh Council, Glasgow City, and Midlothian in recognising the urgency of the climate emergency.

That recommendation aside, the Council agrees with the pathway set out and believes it to be achievable providing the right level of funding, advice and support is made available to support the ambition across the public and private sectors.

Challenges, risks, and unintended consequences from this pathway

Delivery of the plans set out in the strategy do need to be made with an awareness of potential unintended consequences, risks or challenges that setting such an ambitious target may have.

Within a city such as Edinburgh, for instance, there are a number of challenges in developing operational heat and energy networks including:

- Challenges associated with historic building infrastructure or excavation work for local heat networks in some environments being prohibitively expensive;
- The requirement for evenly distributed demand across a 24-hour period to secure efficiency; the technology required to join existing heat networks without losing heat performance; and
- Assessing performance and best value of heat networks when compared to other technologies such as solar PV as these technologies evolve and improve.

More generally, the Council notes the following potential risks or unintended consequences that could be associated with delivery of the strategy

- **An increase in costs for new build developments.** Heat pump infrastructure, for instance, will have additional costs linked to the building of energy centres and it is anticipated that new housing developments will have significant electrical grid upgrade costs and larger electricity connection costs.
- **A limited number of suppliers and installers.** This may slow down home completions and it could be anticipated that there will be challenges for suppliers to recruit suitably qualified workers at the demand required from 2024 onwards to install and commission new heating technologies.
- **A general lack of expertise particularly around commercial and contract management.** Many of the proposals set out in the consultation could lead to additional costs in managing contracts and/or paying the private sector to manage these on behalf of the public sector.
- **Future planning where resources are limited may lead to prioritisation of other activities that appear more feasible and cost effective over time.** This may inadvertently shift away the emphasis on investment on heat networks. The 2024 timeframe for new build homes to have zero direct emissions heating is already a challenging target to meet and could present significant challenges for the wider housebuilding industry. The time frame should allow for the design approach, skills and training for those involved in new build projects to be more fully embedded and establishment of a genuine skills base in low / zero carbon technologies.

To meet these risks, it is recommended that Scottish Government approaches are developed to:

- Support development of well-functioning, well-regulated supply chains for heat network operators at the local authority level.

- Develop a standardised specification of networks to improve economies of scale and help local authorities and developers avoid problems in connecting to district heating schemes.
- Develop and support suppliers to recruit skilled workers needed from 2024 onwards to install and commission new heating technologies.

Towards these points it is recommended that Scottish Government review the current supply chain skills base and seek opportunities to increase capacity across the supply chain to support deployment. This should include a focus on opportunities to promote diversity and youth employment across the wider heat technology sector. Early engagement with the wider supply chain will be essential, particularly in terms of upskilling workers such as plumbers whose skills can easily be transferred from gas boiler installation and servicing to installing heat pumps. Where possible, existing initiatives, such as the Transition Training Fund, and the Future Skills Action Plan, should be repurposed to meet these goals.

What function should a new heat target serve?

A new heat target as described in draft strategy should aim to:

- Significantly reduce emissions
- Support a reduction in fuel poverty and
- Support the roll out of advanced fabric measures to bring down heat demand, as mentioned in the draft strategy.

The heat target should aim to encourage action to reducing demand (advanced fabric measure and/or whole house retrofit) along encouraging the roll out of low / zero carbon technologies that have zero direct emissions.

In setting targets, it is recommended that an approach based on performance targets is followed (i.e. targets based on the percentage of heat demand delivered by low and zero carbon technologies). Other options proposed, (based on technologies deployment rates or replacement of heating systems), carry a risk that heating systems might be replaced without proper consideration of local constraints. A new electric system might be installed where it is not cost-effective, for instance, or where it is not relevant from a technical point of view, with a risk of increasing fuel poverty.

People

Engaging Scotland's people in the net zero heat transition

Working with residents and communities is at the core of local government and it is evident that there needs to be targeted communications to help Scotland's people understand what the heat transition means for them, what the timelines are, and what support is available to them – regardless of their housing tenure.

This is a key challenge looking ahead, but local authorities are well connected and uniquely placed to work in partnership with Registered Social Landlords (RSLs) and the voluntary sector to help share information and advice with residents via existing communication channels and the presence they have in local communities. The HEEPS:ABS delivery programme at the local level, for example, demonstrates how well local authorities have

supported public engagement to private sector households (either tenants or owner-occupiers).

Mitigating potential adverse impacts

To help residents understand what the heat transition means for them it is clear that a 'one-size fits all' approach will not be effective. For those in fuel poverty and other disadvantaged and vulnerable groups, tailored support will be required. This will need to cover consumer protection, fair financial support packages, and ensure these groups have the most appropriate fabric first measures installed that reduce demand and guarantees that zero emissions heating systems do not increase their energy costs.

The Council recognises that many private owners may struggle to fund the cost of energy retrofit upgrades required and notes the risk of landlords passing on the cost of upgrade works to private rented tenants, a large proportion of whom are on low incomes. Tailored financial support in the form of non-repayable grants, or loan schemes paid back through the sale of the property should be considered to support and incentivise property owners and landlords to make the required transitions.

Community engagement activities in Edinburgh show that tailored support centred on the household is critical in meeting residents' needs across a range of issues. In relation to the proposals set out in this strategy, the Council recommends the development of financial assistance schemes for households that provide information and advice on the relevant financial packages that could be offered to them to make their homes more energy efficient thus reducing fuel poverty levels in communities. Schemes, such as the Maximise! project in Edinburgh, is one such example of a model, which provides holistic support to families through a local authority and voluntary sector partnership, helping to manage living costs and facilitating access to specialist supports where they are needed.

Helping people make informed choices

It will be important that people can access the right information either online or by phone to understand the cost implications certain technologies will have on their energy costs, and what effect certain fabric measures are available to offset such changes. Support is also required to ensure that homeowners have the right level of consumer protection and understanding of their rights when engaging with contractors.

Existing services such as Home Energy Scotland and the Energy Efficient Business' Support service provide invaluable support in this context, but their remit will need to significantly increase to help support the aims of this proposal.

Place

Supporting place-based deployment of zero emissions heat

From September 2017 to March 2019, Edinburgh was one of 13 Local Authority areas that undertook a Scottish Government pilot scheme on Local Heat and Energy Efficiency Strategies (LHEES) with guidance produced for designing heat networks in challenging settings. The learning from this pilot is being applied as the Council considers the potential for developing heat network opportunities across the city, within the context of current and future development and retrofit activity.

Looking ahead, the Council recognises that place-based deployment either via new build developments or area-based regeneration creates the best opportunities for large scale heat

networks to be installed. However, to realise this, key support is required to help make the most of this opportunity through:

- **A well-developed heat network operator supply chain** that can be enabled at the local authority level to reflect relevant legal and planning frameworks.
- **A standard specification of networks** to help local authorities and developers avoid problems in connecting to district heating schemes so that there is a consistency in the connection requirements.
- **Support to explore commercial and joint venture opportunities** to help support funding for large scale heat networks and the long-term operation and maintenance of these heat networks.

From an Edinburgh perspective, opportunities to collaborate with city organisations who own buildings and neighbouring local authorities could also be highly beneficial and this could include projects, such as mapping and pilot work to help identify regional development opportunities. Furthermore, through collaborating with the Scottish Cities Alliance and the University of Edinburgh, the Council is already taking the lead as a major landlord in the city and recognises its responsibilities and obligations to work towards net zero.

Kick-starting the Investment and the Economic opportunity

Investing in transition

The Council notes the range of actions identified within the Scottish Government Draft Strategy to kick start the investment in the transition, but notes that:

- The strategic funding priorities should be weighted, with those least able to pay carrying the highest weighting (Priority 1), followed by Strategic Priority 2 (Investing in strategic technologies in low or no regrets areas), 4 (Investing in innovation and demonstration to drive forward competitive advantage), and finally, 3 (Showcasing net zero leadership and share learning through early adoption in key areas of focus).
- More clarity is needed on the support available to local authorities to explore commercial partnership opportunities to better plan for, deliver and manage heat networks. This will be key to developing any future projects and will be a necessity for local authorities in reviewing opportunities and risks.

The Council notes and welcomes the potential for local authorities to play a significant role in meeting the aims of the strategy – as key delivery agents for Local Heat and Energy Efficient Strategies (LHEES) and related Delivery Plans, delivery agents for local Area Based Schemes, or as potential enforcement agents in the regulatory framework for zero emission buildings.

It is important to recognise, however, that such roles represent an expansion of activity beyond that currently undertaken by most local authorities and, as such, there are significant concerns regarding the potential cost to the Council and the significant resources required to implement the actions and targets established in delivering the Strategy

In particular, the Council notes that effective delivery of the strategy will require additional Scottish Government support for local authorities in the form of:

- Financial investment to meet the additional costs to Councils of carrying out the roles required by the strategy

- Support to build the capacity, skills, and knowledge needed to deliver the strategy to the required scale
- A supportive regulatory framework that provides Councils with the security needed to invest and innovate at the scale and speed required by the strategy
- Financial and regulatory support for Councils to explore commercial and joint venture opportunities for large scale heat networks and the long-term operation and maintenance of these heat networks.

Maximising Economic Opportunity

Within plans to maximise economic opportunity, the strategy should make more recognition of offsite manufacturing and construction for new buildings. This sector is a potential area of growth and ties in importantly with heat decarbonisation whilst also significantly reducing construction site emissions.

The strategy notes the role of the heat pump sector advisory group in guiding action for that important sector. It is recommended that similar options be explored for other sectors, such as the battery storage sector, which show significant growth potential and act as key supporting technologies in the area of heat decarbonisation.

It is recommended that Government review of the current supply chain skills base and existing capacity to inform a new approach to increase capacity across the supply chain to support deployment. This could be anchored through the City Region Deals programme. The Edinburgh and South East Scotland City Regional Deal, for example, encourages cross-sector partnerships to enhance economic growth and tackle inequality through a skills development programme. Further long-term programmes of support like this, which targets key sectors and provides opportunities for skills development, should be encouraged.

Opportunities need to be identified at all stages of the Strategic Skills Pipeline and there should be a concerted effort to look at diversity and youth employment across the wider heat technology sector, and how opportunities can be maximised. Schools, further education colleges and employers in the sector have a key role to play in offering entry level training opportunities, vocational qualifications and job opportunities.