

Housing, Homelessness and Fair Work Committee

10.00am, Thursday, 3 June 2021

Housing Sustainability Update

Executive/routine Wards Council Commitments	Executive All
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1. Recommendations

- 1.1 It is recommended that Housing, Homelessness and Fair Work Committee:
 - 1.1.1 Notes the progress that has been made in developing the Housing Sustainability approach;
 - 1.1.2 Agrees to discharge the Green group motion approved by the City of Edinburgh Council on 5 November 2020; and
 - 1.1.3 Agrees to receive an update on Housing Sustainability as part of the annual Capital Investment Programme report.

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Report

Housing Sustainability Update

2. Executive Summary

- 2.1 This report provides an update to the key elements of the motion on Housing Sustainability which was approved on [5 November 2020](#), as well as a wider update on housing sustainability in relation to new build Council homes and the whole house retrofit approach for existing Council homes.
- 2.2 Since November 2020, all new build Council homes are being designed to deliver net zero carbon with the first handovers of these homes expected in 2023.
- 2.3 The Whole House Retrofit (WHR) programme for existing homes and net zero carbon design approach for new build homes both aim to ensure that not only are carbon emissions significantly reduced, but that energy costs for residents are more affordable and the homes they inhabit are warm and healthy environments. This ensures that both approaches align with the key priorities embedded in the Council's Business Plan 2021 which aims to work towards ending poverty and preventing adverse outcomes such as homelessness and unemployment, becoming a sustainable and net zero city and making sure wellbeing and equalities are enhanced for all.

3. Background

- 3.1 On the [14 May 2019](#), the Corporate Policy and Strategy Committee approved the Council's Sustainability Approach, which included Edinburgh working towards a net zero carbon target by 2030, with a hard target of 2037.
- 3.2 On [5 November 2020](#), the Housing, Homelessness and Fair Work Committee received an update on Housing Sustainability, setting out the development of a roadmap to achieving the net zero commitment in the housing sector, including work to develop an advanced whole house retrofit approach (based on the EnerPHit retrofit standard) across existing Council homes and a new build housing design guide for all new housing developments going forward.

- 3.3 Alongside this report, Committee approved a motion from the Green Group on Housing Sustainability. This motion agreed ‘that officers will engage with the Edinburgh Climate Commission, and work with colleagues developing the emerging Carbon Scenario tool, and will receive an update report within six months which will outline progress on this agenda, and, in particular, will set out:
- 3.3.1 A target date on which all new-build council housing will be net zero carbon, consistent with the council’s wider net zero carbon target; and
 - 3.3.2 Potential revisions to the retrofit action plan to ensure it remains consistent with the council’s wider net zero carbon target.
- 3.3 In July 2019, the Climate Commission published findings ‘Forward Faster Together: recommendations for a green recovery in Edinburgh’ which have helped inform the 2030 Strategy and are-being considered across the Council as actions to ‘mainstream’ net zero.
- 3.4 On [1 December 2020](#), the Policy and Sustainability Committee received an update on the Council’s overall sustainability programme which included summary information in relation to the sustainable housing strategy described in more detail in this report. The sustainability programme update noted that a range of council plans, strategies and projects are being taken forward at service level and subject to scrutiny through relevant Council committees, including the Housing Sustainability approach.
- 3.5 On [18 February 2021](#), Council approved a one-year revenue budget, with an outline £1.2bn five-year programme and £2.8bn ten-year capital investment programme to deliver Council commitments on affordable housing and net zero carbon by 2030, and to create places where people want to live that keep them safe, secure, healthy and connected through a holistic area-based approach.
- 3.6 On [2 February 2021](#), the Finance and Resources Committee approved the three-year Council Business Plan: Our Future Council, Our Future City which brought together the Council’s strategic priorities into a single plan. Over the coming years the focus of the Business Plan will be on the following key priorities: ending poverty and preventing adverse outcomes such as homelessness and unemployment; becoming a sustainable and net zero city; and making sure wellbeing and equalities are enhanced for all.

4. Main report

The Edinburgh Climate Commission

- 4.1 The Council is developing the City Net Zero 2030 strategy, which will set out a strategic approach for city partners (citizens and public and private

organisations that collectively have the power, resources and solutions necessary for Edinburgh to achieve net zero by 2030), to reduce emissions in key areas. Housing is an integral part of the strategy with a focus on net zero development and growth, energy efficient public, private and domestic buildings, and citywide decarbonised heat and energy.

- 4.2 As part of the strategy's development, the Policy and Insight project team is working closely with the Edinburgh Climate Commission to gain its input as an expert adviser and to challenge and support policy development. This has involved testing emerging focus areas for the strategy; attending and collaborating with the Council on strategic workshops with city partners (to develop approaches and actions within the strategy) and input into the draft strategy in advance of consultation. This collaboration will continue throughout the public consultation period and into the development of the implementation plan.

Carbon Scenario Tool

- 4.3 The Carbon Scenario Tool (CST) has been designed to inform Council decision making, by giving Councillors and officers validated data on emissions impact at project, programme or city level; presented as a dashboard including key sustainability indicators. It has been jointly developed by the Council and the Edinburgh Centre for Carbon Innovation (ECCI). The Council is working with the Scottish Government, ECCI and the Scottish Cities Alliance to develop the tool as an open source product that can be rolled out and used by other Councils and organisations. The tool allows the assessment of a wide range of projects, spanning from housing to transport to renewable energy generation. The usefulness of the tool is directly dependent on the range and quality of data available for input.
- 4.4 The regeneration of Granton Waterfront will be used as a pilot project for the CST. Taking a whole place approach, Granton regeneration will see the development of around 3,500 new net zero carbon homes, of which at least 35% will be affordable, as well as, new biodiverse parkland, a school, medical centre, creative and commercial space, new cycling and walking routes and enhanced sustainable transport connections within the city. There is also a key opportunity within Granton to provide heat and hot water to new and existing communities through a low carbon district heating network, this is set out further within section 4.11. Granton Waterfront's approach to carbon reduction, through exemplar design, will make a significant contribution to Edinburgh's target to become a net zero carbon city by 2030. The initial findings of the CST highlight the positive benefit of the approach in comparison to business as usual. The outputs of the CST for Granton will be reported in the Outline Business Case, which will be presented to Policy and Sustainability Committee in Autumn 2021.

- 4.5 The CST helps to assess the long-term sustainability credentials of new developments by comparing them with similar new build developments that meet minimum sustainability/building regulation standards powered by fossil fuels. This provides a valuable comparison to see what reduction in carbon savings can be achieved by aiming for higher net zero carbon design compared to less ambitious new build developments. The CST also assesses the impact of other sustainable principles, similar to the approach adopted at Granton Waterfront such as reduced parking, tree planting and active travel provision as set out in the Development Framework.
- 4.6 The planned Meadowbank housing development is also currently being assessed via the CST and others will follow once an appropriate level of detail is available on the preferred renewable energy choice.
- 4.7 The WHR programme for existing Council homes has already been evaluated with the CST. This very high-level assessment revealed that carbon savings in the region of 25,100 tCO₂e/year could be achieved from 2030, assuming a conservative grid decarbonisation scenario. This is the equivalent to the warming potential of almost 100,000 flights from Edinburgh to London. Once the design principles workstream has been concluded and advanced retrofit standards have been identified across the Council's most common building archetypes a further evaluation will be conducted using more accurate figures.
- 4.8 The Housing Service will continue to work closely with colleagues in Strategy and Communications to ensure that large scale new build developments and the wider WHR programme are assessed via the CST.

New Build Net Zero Homes

- 4.9 All new homes are built in accordance with the design guidance for new affordable Council homes. This includes the requirement to be net zero carbon, following an update to guidance in November 2020. This means that all homes being designed from that point will be required to meet the net zero carbon targets. The completion and handover of these homes will begin from 2023, including those at Western Villages in Granton, which will deliver 450 mixed tenure homes served by an Air Source Heat Pump Network.
- 4.10 Similarly, a heat network will also be installed as part of the Edinburgh Home Demonstrator (EHD) on plot D1 to the rear of Granton Station. It will also test the use of more standardised components of the build as part of the drive for greater use of offsite construction. The EHD project will monitor the ongoing performance of the homes when they are completed and occupied by tenants.
- 4.11 The regeneration of Granton Waterfront will deliver over 3,500 net zero homes for sale and rent over the next 10-15 years, this creates an opportunity to provide a district heating network that could serve not only the new homes but also existing homes within the surrounding neighbourhoods alongside

commercial, school and community buildings. The Council are currently undertaking a technical feasibility study which will inform the extent of the network and overall viability to enable optimum performance. It is anticipated that this study will complete in June and form part of the Outline Business Case for the wider regeneration of Granton, which will be presented to Policy and Sustainability Committee in Autumn 2021.

Advanced Whole House Retrofit Programme

- 4.12 The WHR Strategy is currently in development and key elements of the two-year assessment period that will inform the wider strategy, are now being progressed, primarily the design principles commission and stock condition surveys. WHR is a complete approach to making homes more energy-efficient and as low energy as possible, focusing on the fabric of the house first including the walls, roof, floors, windows and doors, as well as, ventilation, heat recovery and heating efficiency. WHR also ensures that improvements are carried out in an organised, sensible order, with installations and refits complementing each other rather than working against each other.
- 4.13 The design principles commission will assess the most common archetypes across existing homes and determine an advanced retrofit standard for each type. These retrofit standards will aim to meet EnerPHit or elements of EnerPHit where possible, with the minimum Energy Efficiency Standard for Social Housing phase 2 (EESH2) for some of the more technically challenging building archetypes. The design principles commission, although primarily focussed on advance fabric measures, will also assess the potential to meet net zero carbon and the type of zero emission heating systems required.
- 4.14 There are a significant number of specific archetypes across traditional and non-traditional low-rise buildings which had to be assessed in depth and grouped into common archetypes. Following this assessment, a total of 43 common low-rise archetypes will be put forward as part of the design principles assessment alongside multi-storey blocks. Six of the most common low-rise archetypes, make up almost 50% of all Council homes. A number of the most common archetypes will be put forward as pilot projects and assessed in terms of overall performance in reducing emissions and energy use/costs.
- 4.15 Following the design principles assessment and pilot projects these six common archetypes will be prioritised to help to inform long term investment from 2023 onwards, via an area-based regeneration approach. These common archetypes lend themselves to targeting larger areas of high-density housing across the city.

- 4.16 The other key element of the two-year assessment period is a detailed stock condition survey. To date 859 properties have had stock condition surveys completed, but due to the resource intensity of this work, the remaining building types will be progressed externally via the new Professional Services Framework. The brief for this commission is currently in development. Once completed, the main findings will be overlaid with the design principles work.
- 4.17 Over the next two years the stock condition surveys, design principles assessment and pilot projects will inform the development of the WHR Strategy from 2023 onwards which will detail the long-term delivery and investment approach across existing homes.

Progress and work underway

- 4.18 Since the last Housing Sustainability update on 5 November 2020 there has been significant progress made across a number of projects. In addition to the updates set out above, the key areas of progress are detailed below:
- 4.18.1 **Mixed Tenure Improvement Service (MTIS):** Along with wider building improvements the MTIS will also progress energy retrofit measures which will include external wall insulation, loft insulation and where possible underfloor insulation. These measures will all help to reduce carbon emissions, energy demand and costs for tenants and homeowners. Phase 1 of the pilot will target 180 blocks over three years in the Murrayburn/Drumdryden area. Initial works are planned to start on 11 blocks in summer 2021;
- 4.18.2 **Energy Efficiency Standard for Social Housing (ESSH):** Most of the planned works to comply with ESSH by December 2020 were suspended as a result of Covid-19. At the end of March 2021, compliance with ESSH was at 75%. The suspended works will be carried out over the next two years, as restrictions are lifted, and are expected to increase overall compliance to 88%. The remaining homes will form part of the roadmap, currently being developed in partnership with Changeworks, that will seek to bring the remaining temporary exemptions, fails and homes in development up to ESSH2 standards where possible. Around half of these homes that do not currently meet ESSH are as a result of tenant refusals and therefore present additional challenges when trying to progress the works. The roadmap seeks to bypass ESSH standards to meet the more ambitious ESSH2 standard well ahead of the 2032 compliance date. This approach to target ESSH2, as standard, will be progressed over the next two years whilst the wider long term WHR Strategy is finalised. To date, 11% of Council homes currently meet ESSH2 (EPC of B, minimum 81 SAP rating). All homes must comply by 2032;

- 4.18.3 Home Energy Efficiency Programme Scotland, Area Based Scheme (HEEPS:ABS):** The Scottish Government's Home HEEPS:ABS provides support to private owners to help fund energy efficiency measures, allowing the Council to take forward measures that ensure compliance with EESSH in mixed tenure blocks that may otherwise not be possible. As part of the 2020/21 programme £4.8m in funding has been made available to deliver a combination of Cavity Wall Insulation (CWI), Internal Wall Insulation (IWI), External Wall Insulation and solar PV / battery storage, benefitting a total of 622 private owners and 254 Council tenants. Due to Covid-19 restrictions, the majority of this work will be delivered in 2021/22;
- 4.18.4 HEEPS:ABS 2021/22:** The Council has been allocated £5.008m as part of the HEEPS:APS 2021/22 grant funding programme. The delivery programme is currently being developed in partnership with the Council's Energy Projects Delivery partner Changeworks. The programme (subject to Scottish Government approval) will seek to target 472 private homes and 464 Council homes for a range of energy retrofit measures including external, internal and cavity wall insulation and solar PV and battery storage.;
- 4.18.5 Decarbonisation Fund (Round 2):** The first round of the Decarbonisation Fund was completed in January 2021 and saw the installation of combined solar PV and battery storage systems to 106 Council properties in the Kirkliston area. Due to the interest amongst private owners, an additional 95 homes will be targeted as part of the HEEPS:ABS 2020/21 programme. An aggregator is also now in place to examine how much revenue could be generated from the 103 homes that already have the combined systems installed through grid balancing services. The pilot will run until March 2022.

5. Next Steps

- 5.1 The Council's new build programme will progress delivery following a net zero carbon design brief, as set out in the new design guide principles, complemented by wider development sustainability and low carbon principles.
- 5.2 The two-year assessment period for developing the wider WHR Strategy will be progressed, with priority focused on progressing the Design Principles workstream and associated pilot projects and stock condition surveys.
- 5.3 Key housing projects will be processed through the CST to refine both the data which is inputted and the outputs to help embed climate impact data into decision-making and ensure that the planned level of activity is likely to deliver long term carbon reduction targets.

- 5.4 Housing colleagues are currently working closely with colleagues in Policy and Insight on the development of the City Net Zero 2030, which is due out for public consultation in summer 2021. This includes exploring strategic net zero priorities, identifying opportunities for collaboration and ensuring alignment with the net zero carbon target.

6. Financial Impact

- 6.1 The 2021/22 Draft Housing Revenue Account (HRA) Business Plan approved by Council [18 February 2021](#), included the costs for the additional capital investment required to ensure all new homes are built to net zero carbon and all existing homes, where possible, undergo advance WHR.
- 6.2 In terms of the WHR approach, the total proposed investment per home has nearly doubled from c.£24,000 to c.£43,000 over the first ten years of the business plan period; this includes known costs for whole house retrofit to meet sustainability objectives, mixed tenure investment in buildings and common areas.

7. Stakeholder/Community Impact

- 7.1 The Council's ongoing and planned housing sustainability initiatives will have a positive community impact helping to alleviate fuel poverty, reduce carbon emissions, lower fuel bills and address the challenges of mixed tenure ownership in the city.
- 7.2 The Council will continue to work with partners such as Home Energy Scotland to engage private owners and landlords, promoting advice and information services and to encourage landlords to undertake energy efficiency measures.
- 7.3 There is an extensive programme of consultation and engagement with tenants, including surveys, focus groups, tenant panels, tenant led service inspections and resident and community meetings. There is also a dedicated annual budget consultation exercise. Making homes easier and cheaper to heat remains a key priority for tenants.

8. Background reading/external references

- 8.1 UK local authority and regional carbon dioxide emissions statistics: [2005 to 2018](#).
- 8.2 Home Energy Efficiency Programmes for Scotland: delivery report [2017-2018](#).
- 8.3 Energy Efficient Scotland: [route map](#).

8.4 Council Response to Edinburgh Climate Commission and Sustainability Programme Update, Policy and Sustainability Committee on [23 July 2020](#).

9. Appendices

9.1 None.