

# Housing, Homelessness and Fair Work Committee

10.00am, Tuesday, 3 October 2023

## Whole House Retrofit

Executive/routine  
Wards

Routine  
All

### 1. Recommendations

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- 1.1 Housing, Homelessness and Fair Work Committee is asked to note this report which responds to an action agreed by Committee on 9 March 2023 to provide a report on additional benefits which could be realised through a Whole House Retrofit (WHR) approach, especially in terms of ensuring Council homes are adapted to meet the needs of a changing climate.

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# Report

## Whole House Retrofit

### 2. Executive Summary

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- 2.2 This report responds to an action agreed by Committee on 9 March 2023 for a report detailing additional benefits which could be realised through a Whole House Retrofit (WHR) approach, especially in terms of ensuring Council homes are adapted to meet the needs of a changing climate.

### 3. Background

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- 3.1 On 9 March 2023, Committee considered a [report](#) on the 2023/24 Housing Revenue Account (HRA) Capital Programme. This report detailed the move to a new holistic WHR approach and the workstreams which would initially support this transition.
- 3.2 Following an addendum by the Green Group, Committee requested the following additional information be brought back in a further report in two cycles:
- 3.2.1 What further building / estate improvements could be built into WHR works to address the climate and nature emergencies beyond energy efficiency measures, including:
- a. Consideration of new approaches to more sustainable water management through changes to roofing, guttering and drainage, including the use of SuDS and nature-based solutions as part of this;
  - b. Consideration of actions which could be taken to decarbonise heat / energy sources within homes, for example, by preparing homes to be ready to connect to alternative, zero carbon energy sources in the future, such as heat networks;
- 3.2.2 Detail about how the use of SIMD, stock condition findings and tenure mix will inform which areas will be prioritised for investment and in what order, including explaining how this sequencing will represent a climate justice approach;
- 3.2.3 How the WHR work aligns with existing Council strategies and work programmes such as the 2030 Climate Strategy (and IPB), forthcoming Edinburgh Adapts plan (and climate change risk assessment) and Vision for Water Management, amongst others; and

- 3.2.4 What additional resourcing may be required to deliver against further building/estate improvements as part of WHR work, including:
- a. Options for how any required funding could be secured/provided outwith the HRA for this;
  - b. A strategy for workforce recruitment, upskilling and retention to deliver this work, as part of our commitment to a just transition.

### **Overview of the holistic WHR approach**

- 3.3 The Council is currently embedding a holistic WHR approach across both low rise and high-rise blocks to meet, where practical, the Scottish Government's Energy Efficiency Standard for Social Housing (ESSH2). The WHR approach essentially promotes a robust fabric first approach that seeks to design out poor performance (i.e., reducing heat loss, removing thermal bridges/cold spots and reducing the build-up of moisture) whilst ensuring all elements complement one another rather than working against one another.
- 3.4 Another key aspect of the WHR approach is ensuring that each block/archetype has the right ventilation strategy to ensure the home can breathe and deal with the build-up of moisture. This WHR approach will help to significantly reduce the build-up of moisture, existing energy demand and therefore heating costs. Whilst improving tenant warmth, comfort and indoor air quality. Finally, a robust WHR approach will help to future proof homes in terms of reducing future maintenance issues.

### **Pilot programme**

- 3.5 There are currently a range of WHR projects in both design and development:
- 3.5.1 Phase 1 of the WHR Pilot Programme (Gilmerton Dykes Crescent, Southouse Ave and Burdiehouse Drive) commenced construction at the end of August 2023 and focuses on three of the most common 10 building archetypes across the Council estate. Phases 2 and 3 were both procured in August/September 2023 and consist of the remaining seven most common building archetypes;
- 3.5.2 The first low rise area-based scheme, in Magdalene, Bingham and the Christians, will be on-site in October 2023. The first phase will focus on the Bingham estate and a sheltered housing accommodation block in Magdalene. Design is also underway for the next phases of this programme across the wider Magdalene estate;
- 3.5.3 The design phase for the retrofit of Oxcars and Inchmickery Court and Craigmillar and Peffermill Court are now nearing completion. A Pre-Construction Service Agreement is now in place for both design commissions; and
- 3.5.4 The design phases for Cables Wynd and Linksvie House and the six Moredun multi-storey blocks are still in the early stages of design. The core detailed design work will progress in early 2024.

## 4. Main report

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### **Strategy for prioritising investment**

- 4.1 The current strategic investment approach for low rise blocks is to target investment in areas that fall within the 20% most deprived areas as per the Scottish Index of Multiple Deprivation (SIMD), in line with a climate justice approach. By prioritising investment in the most deprived and socially disadvantaged areas, the retrofit interventions will help to target those most at risk of fuel poverty and properties most in need of investment due to their existing fabric and energy performance.
- 4.2 The low-rise stock condition surveys, once fully completed (65% completed as of August 2023) and integrated into NEC (formerly Northgate), will be used to run scenarios to inform the prioritisation of further areas for investment. Areas highlighted by the stock condition surveys as priorities will also be cross referenced against known damp and mould cases to further inform priority.
- 4.3 Separate high rise structural condition surveys will determine which blocks are prioritised over others for investment. All known damp and mould cases will be passed over to the design team to see if there are commonalities between cases to help inform the wider design solution.
- 4.4 The stock condition surveys alone will not effectively determine if there is a serious damp and mould problem as the causes can be varied and not necessarily identifiable in the context of an external condition survey assessment. In many cases, it is likely that damp and mould cases will overlap with SIMD priorities and stock condition findings. However, if bigger clusters of damp and mould cases in particular areas/estates are identified, they will be prioritised separately for investment outwith the core WHR programme.
- 4.5 The capital programme team is now working closely with Preservation Surveyors to create a process for capturing these larger clusters of damp and mould cases and ensuring they are programmed in for works alongside existing investment priorities.

### **Additional climate and nature emergency measures**

- 4.6 All four of the current multi-storey design programmes are looking at additional climate adaptation measures and nature-based solutions to help address the climate and nature emergency in relation to sustainable water management.
- 4.7 Each design commission includes a full topographical and existing drainage CCTV survey to review the current drainage arrangements across the existing developments and to assess how best to apply the principles of Sustainable Urban Drainage (SuDs) to the existing site. This will ensure the drainage arrangements are best placed to deal with the challenges specific to the site i.e., flood risk, exposure, the potential effects of climate change.
- 4.8 For example, Oxcars and Inchmickery will include provision for a number of SUDs interventions and will sit alongside a significant increase in tree coverage and water attenuation tanks under the existing car parks to help alleviate extreme rainfall events and take pressure off the existing drainage system. Additional biodiversity

enhancements will include the planting of native shrubs and fruit trees and wildflower meadows, and the inclusion of bird and bat boxes is being explored.

- 4.9 Similar interventions are planned as part of the wider design solutions for Craigmillar/Peffermill Court and Cables Wynd/Linksvie House.
- 4.10 The design solutions for the six Moredun multi-storey blocks will feed into and align with the environmental investment programme works that have been developed in partnership with Moredun residents.

### **Heat decarbonisation**

- 4.11 In line with Scottish Government interim guidance for social landlords, priority should be given to what has the biggest impact for the lowest cost. Fabric first is essential and should be prioritised ahead of heat decarbonisation measures.
- 4.12 The current holistic WHR approach is centred on fabric first to reduce existing energy demand and heat loss. This approach provides the biggest impact in terms of carbon and energy demand reduction. In most cases, existing demand can be reduced by between 50% - 75% and thus a substantial reduction in the need for tenants to heat their homes. Existing heating systems will not be replaced unless they are nearing end of life. A follow up strategy for the decarbonisation of existing heating systems across existing homes will need to be developed. Options for the decarbonisation of existing heat supplies will need to align with the recommendations from the Scottish Government following their review of EESSH2.
- 4.13 The EESSH2 review commenced in September 2022, and the Scottish Government has advised that they aim to complete it this year. The purpose of the review is to bring the standard for social housing in line with net zero. It has been considering both energy efficiency upgrades and the need to deploy zero direct emissions heating systems (ZDEH).
- 4.14 Measures that use ZDEH are listed as the next core investment priority following fabric first. Projects for connecting to district heating and communal heating systems are further down the list of investment priorities within the current interim guidance.
- 4.15 Another core reason that ZDEH systems are not included as part of the current WHR approach is largely because of the added cost of removing a gas boiler and replacing it with a ZDEH systems and the disruption to tenants in having to remove and replace existing internal pipework/radiators.
- 4.16 As the current WHR interventions alone will be able to reduce existing heat demand from between 50% - 75%, the initial fabric first interventions will provide the biggest carbon and energy reduction opportunities. These interventions will also support the move to ZDEH systems at a later date and not significantly increase tenants' energy bills in the interim.
- 4.17 All new build developments will have ZDEH systems installed. The first net zero carbon developments to complete will be Western Villages and Granton D1, where homes will be completed in 2024 and will be powered by air source heat pump communal heat networks.

## 5. Next Steps

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- 5.1 The WHR programme for 2023/24 includes:
  - 5.1.1 Site start for all 10 blocks within the WHR pilot programme;
  - 5.1.2 Design commissions for Oxcars/Inchmickery Court and Craigmillar/Peffermill Court;
  - 5.1.3 Design commissions for Cables Wynd/Linksvie House and the six Moredun multi-storey blocks will be progressed to advance design stage; and
  - 5.1.4 The first phase of the Magdalene, Bingham and the Christians low rise area-based programme will commence construction in late 2023.
- 5.2 Oxcars/Inchmickery Court will be the first application made to the Scottish Governments Social Housing Net Zero Heat Fund (SHNZHF) under the Fabric First theme. Initial conversations have been held with Scottish Government on this.
- 5.3 Officers will continue to ensure that the WHR programme is fully aligned and embedded within relevant Council climate strategies (such as: the 2030 Climate Strategy, Edinburgh Adapts and Vision for Water Management).
- 5.4 Officers will continue to work with Scottish Government to maximise the amount of grant funding made available to the Council to support the delivery of WHR and EESSH2 compliance through the SHNZHF. Funding for nature-based solutions, climate adaptation and wider landscape improvements will also be explored.

## 6. Financial impact

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- 6.1 Committee requested information on whether additional resourcing may be required to deliver against further building/estate improvements as part of the WHR work.
- 6.2 The core funding stream currently available to the Council for energy retrofit and heat decarbonisation is the SHNZHF. This fund provides up to 50% match funding for zero emission heating systems and fabric first energy efficiency projects. Council's must bid into the national pot of £200m on a project-by-project basis.
- 6.3 The Scottish Governments Energy Efficient Scotland: Area Based Scheme (EES:ABS) is also essential to the successful delivery of WHR. Around 50% of the Council's homes are in mixed tenure blocks, which require all owners to sign up to repairs/improvements before works can progress. EES:ABS ensures the Council can support private owners where works to mixed tenure blocks are planned as part of the wider investment strategy for low rise and high rise blocks.
- 6.4 For additional building/estate improvements linked to core nature-based solutions and climate adaptation measures across Council estates, there are a range of funding streams available. These include the Heritage Lottery Fund which provides funding for natural heritage infrastructure. The heritage and Place programme managed by Historic Environment Scotland can also provide funding for estates such as Cables Wynd and Linksvie that are listed. For specific SUDs, that support biodiversity in urban areas, funding is available via the Scottish Governments

Nature Restoration Fund. Funding for nature-based solutions and climate adaptation will be progressed on a project by project basis by Council Project Managers working in partnership with community and resident organisations and consultants.

- 6.5 Council officers will work together to ensure that the WHR programme is fully aligned. This will include ensuring that Housing is represented on the Net Zero Edinburgh Leadership board (formerly IIPB) workstream that is specifically focusing on energy and retrofit. Senior Officers from Housing will also continue to work with the Scottish Government and with COSLA (via the Association of Local Authority Chief Housing Officers) to seek to maximise the amount of grant funding that can be leveraged in to support WHR. Officers will also work closely with colleagues working on the Climate Strategy 2030 and Edinburgh Adapts etc to identify other suitable funding opportunities.
- 6.6 Committee also requested a strategy for workforce recruitment, upskilling and retention to deliver the WHR programme. A separate report to this Committee will consider the role of the Council's in-house workforce in delivering major capital investment and maintaining new build and newly retrofitted homes, the upskilling required and the role of apprenticeship programmes in supporting this.
- 6.7 On 23 February 2023, the Council agreed a 3% rent increase in 2023/24 and noted that based on 3% rent increases over the next 10 years, around 86% of existing homes could be brought up to EESSH2 over the lifetime of the business plan and that c.2,400 social rented homes could be delivered.
- 6.8 A separate report to this Committee sets out the review of the business plan and updated financial model. The assumed unit costs for WHR have increased by 3.6% (from £0.056m to £0.058m) due to availability of more accurate costs and inflation on materials and labour costs. Assuming the same amount of investment is made on WHR, around 83% of existing homes would be expected to achieve EESSH2 by the end of the business plan period. If 50% of investment was supported by Scottish Government grant (similar to SHNZHF cap), based on 3% p.a. rent increases, it is estimated that c.£50m of investment (with assumed inflation) could be made per annum on EESSH2 related works and all homes to be brought up to EESSH2 within the 30-year business plan period by 2050/51. This is based on grant funding increasing from the current assumption of £120m to c.£670m in order to support 50% of the investment. The SHNZHF is £200m for all of Scotland and must be bid into on a project-by-project basis. This is limited and provides no certainty for long term planning. Without grant funding, the majority of the costs would have to be met by prudential borrowing, funded from tenants' rents.

## **7. Equality and Poverty Impact**

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- 7.1 The current WHR approach aligns with the Council's Climate Justice approach as it seeks to support the protection of those most vulnerable to the effects of climate change. Many of the Council's tenants reside in hard to heat homes and struggle to effectively heat their homes and afford their energy costs. WHR will achieve

substantial improvements to the fabric of our tenants' homes, reducing energy demand making them easier to heat and thus reducing energy bills. Core WHR investment will also be focussed in the most socially and economically deprived areas of the city and aligned with the SIMD thus ensuring tenants and homeowners who will be most at risk from the effects of fuel poverty and living in a cold home are supported as a priority through WHR interventions.

- 7.2 An Integrated Impact Assessment will be undertaken for the planned WHR programme. This will help to highlight any equality, human rights (including children's rights) and socio-economic disadvantage implications for members.

## 8. Climate and Nature Emergency Implications

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- 8.1 Committee also requested information in relation to how the WHR work aligns with existing Council strategies and work programmes such as the 2030 Climate Strategy (and IPB), forthcoming Edinburgh Adapts plan (and climate change risk assessment) and Vision for Water Management, amongst others.

- 8.2 The City of Edinburgh Council declared a Climate Emergency in 2019 and committed to work towards a target of net zero emissions by 2030 for both city and corporate emissions and embedded this as a core priority of the Council Business Plan 2023-2027. The Council also declared a Nature Emergency in 2023.

- 8.3 As a public body, the Council has statutory duties relating to climate emissions and biodiversity. The Council

*“must, in exercising its functions, act in the way best calculated to contribute to the delivery of emissions reduction targets”*

(Climate Change (Emissions Reductions Targets) (Scotland) Act 2019), and

*“in exercising any functions, to further the conservation of biodiversity so far as it is consistent with the proper exercise of those functions”*

(Nature Conservation (Scotland) Act 2004)

- 8.4 The WHR programme is fully aligned with the Council's climate ambitions and is noted as a key action in the 2030 Climate Strategy. The Strategy states the Council will 'Develop a Whole House Retrofit delivery programme for retrofitting social housing across the city to the highest energy standards, to reduce energy demand and tackle fuel poverty' whilst also supporting climate justice.
- 8.5 In addition to this, the draft Climate Ready Edinburgh (adaptation) strategy also sets out ambitions to address the built environment, with a key action to work with the Council and social landlords to adapt social housing and green the areas around Council housing to support climate adaptation.
- 8.6 The Net Zero Edinburgh Leadership board (formerly IIPB) has a workstream focusing on energy and retrofit, which works closely with other subgroups including transport, just economic transition and Edinburgh adapts. These overlapping and interlinked workstreams all work to deliver key actions as set out in the Climate



Strategy and forthcoming Climate Ready Edinburgh plan and aim to support integration of adaptation measures across all areas of retrofit.

## **9. Risk, policy, compliance, governance and community impact**

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- 9.1 The key risks to the WHR programme are set out in the risk table under Appendix 1.
- 9.2 The interventions required to enable a whole house retrofit approach can often lead to other measures being required such as changes to the existing fire strategy (i.e., Automatic Opening Vents and firefighting lifts needing to be installed in some cases). As such, investment costs could increase along with the timeframe for delivery. The additional range of potential health and safety interventions will though vary quite significantly from block to block. The first set of multi-storeys to reach final design will though help to inform the wider scope and design package for the future blocks that will be moving into detailed design.
- 9.3 In terms of community impact as part of the WHR programme for multi-storey blocks a detailed communication plan is created for each design commission to ensure that tenants and homeowners. This is to ensure that they are given the opportunity to meet with the wider design team and Council officers to discuss the planned retrofit and upgrade to the blocks they reside in. This includes foyer sessions, regular newsletters, and other engagement sessions in the wider locality to allow residents to review the proposals and ensure their voice and views are both heard and captured and fed into the design process.
- 9.4 The Council's WHR strategy for its 20,000 homes is an important part of the Council's wider retrofitting strategy for its assets and will support delivery of Edinburgh's wider net zero climate targets and commitments. However, Council and wider Registered Social landlords housing stock only accounts for approximately 13% of Edinburgh overall housing stock. As such the wider national legislative frameworks and funding for owner occupiers and private landlords will be important factors in helping Edinburgh to meet its climate targets.
- 9.5 The Housing team is in regular contact with tenants, through the annual tenants' survey, repairs tenant satisfaction surveys, complaints analysis, an ongoing tenant focus group programme, tenant working groups, feedback from frontline housing officers and tenant feedback submitted to a dedicated mailbox.

## **10. Background reading/external references**

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- 10.1 [2023/24 Housing Revenue Account \(HRA\) Capital Programme](#) – Housing, Homelessness and Fair Work Committee, 9 March 2023.
- 10.2 [Housing Revenue Account \(HRA\) Budget Strategy 2023/24 – 2032/33](#) – City of Edinburgh Council Committee, 23 February 2023.
- 10.3 [Damp, Mould and Condensation in Council Homes](#) – Housing, Homelessness and Fair Work Committee, 9 May 2023.

## 11. Appendices

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11.1 Appendix 1 – Risk Table.

## Appendix 1 - Risk

Risk	Mitigation	Timescales
<p><b>Contractor capacity:</b> Due to the scale of the Programme contractor capacity within current frameworks will be limited as multiple contractors sit across a number of work package lots. As such they will have limited capacity to respond to the scale of work in this year's programme.</p> <p>The WHR work packages are not suitable to be procured within existing frameworks due to the specialist type of work, number of sub-contractors required, and the risks involved with working on multi-storey blocks</p> <p>In terms of the multi-storey blocks programme contractors have shown little appetite for taking on large scale retrofit in multi-storey blocks and see this as more high risk for them.</p>	<ol style="list-style-type: none"> <li>1.Key workstreams will need to be staggered throughout the financial year to ensure contractors within existing Council frameworks are not overloaded.</li> <li>2.External frameworks will be explored to see if they are suitable for procuring more specialist and sizable WHR area based and multi-storey work programmes.</li> <li>3.Continued engagement with contractors on external frameworks and the market more widely will need to be scaled up to let prospective contractors know the strength of the WHR pipeline.</li> <li>4.Continued engagement with contractors around the planned investment strategy for multi-storey blocks will continue. This engagement will hopefully de-risk contractors' current hesitancy to take on retrofit within multi-storey blocks due to the significant pipeline of works coming over the next 10-15 years.</li> <li>5.The existing Housing Property Framework will need to be renewed in 2024. This provides an opportunity to ensure that any future Framework is suited to the needs of the capital programme over the next 5 years and in particular that this includes the ability to procure larger more specialist contractors to take forward area based and multi-storey WHR programmes.</li> </ol>	<ol style="list-style-type: none"> <li>1.Mitigating action currently in place.</li> <li>2/3/4.Mitigating actions currently in place. A range of alternative Frameworks have now been assessed and continued engagement with the market on the scale of the WHR programme is underway with Market Engagement Sessions planned as part of all multi-storey design commissions.</li> <li>5. Mitigating action currently in place. Procurement Requirement Form approved, and workshops scheduled in to ensure the new Framework meets future WHR requirements</li> </ol>
<p><b>Owners and tenant engagement (mixed tenure):</b> Owners may not have the funds to invest in their homes, delaying or limiting investment in mixed tenure blocks.</p> <p>Tenants may wish to opt out of WHR works due to the scale and/or intrusiveness of the works planned.</p>	<ol style="list-style-type: none"> <li>1.The Mixed Tenure Improvement Service (MTIS) has been underway since 2021/22 to coordinate improvement works in mixed tenure blocks. Enhanced Scheme of Assistance measures are also in place following Finance and Resources Committee approval on 23 January 2020 and March 2022 which provide extended repayment terms for owners and tenant acquisition options.</li> <li>2.The delivery of strategic acquisition and disposal of homes continues to achieve block consolidation.</li> <li>3.Dedicated tenant liaison support will be put in place to engage with tenants and ensure they have the right level of support and advice available to help them throughout the process.</li> </ol>	<ol style="list-style-type: none"> <li>1. Mitigating action currently in place via the Enhanced scheme of assistance.</li> <li>2. Mitigating action currently in place. Acquisitions and Disposals will continue to support the delivery of block consolidation over the course of the WHR strategy. This will be a longer term action over the next 10-15 years.</li> <li>3. Mitigating action currently in place. Additional case Officers will be recruited to support the Owners and tenants. Two additional Case</li> </ol>

		Officers were recruited this summer with a further two more Case Officers to be recruited this autumn/winter
<p><b>Grant funding:</b> The cost of delivering WHR across the Council's existing estate is estimated be around £56,000 per home. Additional annual grant funding from Scottish Government will be required to support the delivery of this programme.</p> <p>Grant funding to support owners to invest in mixed tenure improvements and energy efficiency will be insufficient, resulting in the Council not meeting its net zero commitment.</p>	<p>1.The application to Scottish Government's EES:ABS grant fund has been aligned with the MTIS pilot in order to maximise funding available to owners to enable works to progress.</p> <p>2.Additional funding for energy efficiency and low carbon technologies has been made available by the Scottish Government. This includes the following: the Low Carbon Infrastructure Transition Programme and its successor programme which will invest £400min large-scale heat decarbonisation infrastructure; and the Social Housing Net Zero Heat Fund which will make £200m available over the next five years to support social landlords across Scotland to install zero emissions heating systems and energy efficiency measures across their existing stock.</p>	<p>1.Mitigating action currently in place – all future mixed tenure WHR programmes will be programmed to leverage in EES:ABS funding to support private owners in these areas.</p> <p>2.Mitigating action currently in place. Council Officers will continue to meet with Scottish Government and COSLA via the Association of Local Authority Chief Housing Officers to try and maximise funding for WHR etc. It is worth noting that this will be a longer term action over the next 10-15 years to engage with current and future governments on this issue.</p>