
NORTH AYRSHIRE COUNCIL

25 January 2022

Cabinet

Title: Energy Efficiency Standard for Social Housing 2 (ESSH2)

Purpose: To provide Cabinet with a summary of progress to date against ESSH standards, and a plan to achieve ESSH2 compliance in the Council's housing stock, where possible, by the 2032 deadline.

Recommendation: That Cabinet (i) notes progress to date against ESSH standards; and (ii) approves the proposed plan to achieve ESSH2 within the Council's housing stock, or make properties as energy efficient as practically possible, by the 2032 deadline.

1. Executive Summary

- 1.1 The Energy Efficiency Standard for Social Housing (ESSH) aims to improve the energy efficiency of social housing in Scotland, thus reducing energy consumption, fuel poverty and the emission of greenhouse gases. Following an initial deadline of 31 December 2020 for ESSH a second milestone (ESSH2) has been set for December 2032, with a key aim that all social housing in Scotland achieves an energy efficiency rating of Energy Performance Certificate (EPC) band B or above, within the limits of cost, technology and consents required.
- 1.2 In its Annual Return on the Scottish Social Housing Charter for 2020/21 to the Scottish Housing Regulator, the Council reported that 97.6% of its housing stock met the original ESSH requirements at 31 March 2021, the third highest compliance level in Scotland amongst local authorities. However, at the present time less than 1% of North Ayrshire Council properties meet the new ESSH2 requirements; this demonstrates the scale of the challenge in the coming years.
- 1.3 Independent energy experts were commissioned in May 2021 to analyse the Council's housing asset performance data and provide recommendations and associated costs to improve the energy efficiency of stock to meet the ESSH2 requirements, where possible. The recommendations have recently been received and assessed, and a plan developed to progress with the installation of measures required to increase the energy efficiency of the housing stock.

- 1.4 The installation of an alternative heat supply to most Council properties would significantly increase compliance with EESSH2, as the assessment is weighted against gas central heating. Whilst the Council will continue to consider renewable energy systems, government direction - alongside significant investment - is required to progress with the decarbonisation of the gas network to ensure a sustainable alternative. Furthermore, new technology and wider solutions to improve energy efficiency continue to evolve at pace. Whilst the proposals outlined in this paper reflect current known technology and solutions, officers will continue to closely monitor new and emerging technology, including the quickly emerging alternative heat supply position, to identify appropriate opportunities as they emerge for potential incorporation into the proposed suite of measures outlined.
- 1.5 An asset performance review of the Council's housing stock is planned as part of the ongoing review of the Council's performance against EESSH2. This will incorporate asset information, planned investment and housing management information, and will facilitate options appraisals for properties for which achieving EESSH2, or close to the standard, is unlikely or will require unreasonable levels of investment.
- 1.6 This report sets out the Council's progress to date against the EESSH standards and options to achieve EESSH2, where possible, by the December 2032 deadline. Cabinet is invited to approve the measures and proposed investment outlined in the report, which will be included within the Housing Revenue Account 2022/23 budget report for consideration at the Council meeting on 16 February 2022.

2. Background

- 2.1 The Energy Efficiency Standard for Social Housing (EESH) aims to improve the energy efficiency of social housing in Scotland, thus reducing energy consumption, fuel poverty and the emission of greenhouse gases. EESH builds on the previous Scottish Housing Quality Standard which ran from 2004 to 2015. It was first introduced in March 2014 and set a milestone for social landlords to meet minimum ratings in the UK Government's 'Standard Assessment Procedure (SAP) for Energy Rating of Dwellings' by 31 December 2020. The target varied between a rating of 47 (in EPC band E) for an oil heated house, and 69 (in EPC band C) for a gas heated flat.
- 2.2 A second milestone, EESH2, was established in June 2019. This more progressive standard aims to ensure that all social housing meets or can be treated as meeting an energy efficiency rating of Energy Performance Certificate (EPC) band B, or is as energy efficient as practically possible, by the end of December 2032.
- 2.3 The Scottish Government recognises that EPC band B will not be met for all social housing stock with the existing technologies available and at a reasonable cost, and therefore has caveated the 2032 milestone with '*within the limits of cost, technology and any necessary consents required*'. The standard also states that no social housing is to be re-let below EPC band D from December 2025, subject to temporary specified exemptions, such as where a house is currently occupied or scheduled for demolition.

Progress to date

- 2.4 Since 2014, North Ayrshire Council has been undertaking various measures to ensure EESSH compliance, namely: external wall insulation; roofing replacement; heating replacement with more efficient boilers; and loft and cavity wall insulation. This has resulted in 97.6% of Council-owned properties meeting the EESSH standard as at 31 March 2021.
- 2.5 The 258 properties which did not comply with the EESSH standard at 31 March 2021 were predominantly due to access issues impacting the survey programme, related to COVID-19 restrictions and some tenants' reluctance to grant access. Work is currently being undertaken to establish measures to gain access to these properties, and the independent surveys have now recommenced following a temporary pause during COVID-19 restriction periods.
- 2.6 Despite the significant work and investment to achieve the first EESSH milestone, less than 1% of Council properties meet the new EESSH2 requirements. In recognition of the challenge, independent energy experts were commissioned to carry out an analysis of the Council's housing stock in May 2021. The consultants were provided with housing asset information and energy performance data on the 12,727 properties in the Council's portfolio and tasked with determining the current EESSH2 compliance rate, and the most readily deliverable measures to achieve, or work towards, the Scottish Government's target of EPC band B by 2032. The consultants' brief also included the need to provide indicative costs for installing the required measures, alongside modelled savings (carbon and fuel) and desktop research on potential options to achieve a 'carbon neutral' housing stock portfolio by 2040.
- 2.7 Prior to engaging the consultant, and as part of the retendering process for the capital roofing and rendering contract, the Council has taken the opportunity to include the installation of external wall insulation and solar photovoltaic (PV) panels alongside re-roofing and rendering where appropriate. This will maximise the use of scaffolding and minimise further disruption to tenants, alongside the opportunity to maximise energy efficiency and tackle fuel poverty. To facilitate this, £0.897m has been earmarked from the £5m Housing Revenue Account Sustainability and Regeneration Investment Fund approved by the Council in December 2020.

Proposals for improvements to Council housing stock

- 2.8 Investment proposals have been modelled using a 'fabric first' hierarchy of improvements, followed by:
- heating upgrades; then
 - solar measures (solar thermal to convert solar energy to heat and/or solar photovoltaic to convert solar energy to electricity).

The above measures, where appropriate, were modelled in turn until EESSH2 compliance was reached, or until available energy efficiency measures were exhausted.

- 2.9 The 'fabric first' improvements identified in the energy consultants' report includes the provision of floor insulation in houses, bungalows and ground floor flats built prior to

1991, totalling 9,794 properties. The indicative cost of implementing this measure is £26.848m. However, installing this type of insulation is likely to prove problematic in practice, and will cause significant disruption to the tenant. In addition, whilst it would support a considerable number of properties in achieving the EESSH2 standard, it does not have a significant impact on increasing the average SAP rating across the housing portfolio. This is demonstrated in the table below.

EPC band rating (SAP)	Baseline - No. of properties per band rating (<i>properties that don't meet current EESSH</i>)	No. of properties per EPC band after all measures applied	No. of properties per EPC band if all measures are applied <u>except floor insulation</u>	Difference per EPC band by excluding floor insulation
A (92+)	0	325	60	-265
B (81-91)	34	5,632	5,464	-168
C (69-80)	12,211 (1)	6,725	7,115	+390
D (55-68)	472 (248)	41	83	+42
E (39-54)	7 (6)	3	4	+1
F (21-38)	1 (1)	1	1	-
G (1-20)	2 (2)	0	0	-
TOTAL	12,727 (258)	12,727	12,727	
Average SAP rating		80.7	79.17	

- 2.10 It is recommended that the Council applies all measures, with the exception of floor insulation, to its housing portfolio. Whilst 9,794 properties would benefit from the measure, the rent increases associated with funding this measure would not offset the anticipated annual fuel savings to tenants. The Scottish Government's EESSH2 Guidance suggests that, since measures are likely to be paid out of rental income, landlords should be mindful that investment to reduce fuel poverty does not lead to rent poverty.

Indicative running costs to tenants

- 2.11 The housing stock data and energy performance information provides estimated annual running cost savings for tenants (using a baseline average running cost of £1,025 per annum) after proposed measures have been implemented (less floor insulation). These have been considered alongside data the Council has obtained on estimated savings from solar measures and set out in the table below.

Measure package	No. of properties to be installed with measures	Estimated average annual running costs saving from each package per property	Total estimated annual running cost savings	% running costs savings from each package
Fabric upgrades	1,550	£84.15	£130,432	8.21%
Heating upgrades	725	£52.45	£38,026	5.12%
Solar measures	4,278	£115.00	£491,970	11.22%
Fabric + heating	200	£150.58	£30,116	14.69%

Fabric + solar	754	£200.72	£151,342	19.58%
Heating + solar	270	£245.26	£66,220	23.93%
Fabric + heating + solar	46	£287.50	£13,225	28.05%
	7,823 (total)	£117.77 (average)		11.49% (average)

2.12 Estimated savings were calculated prior to energy price increases as a result of supply and demand on the global wholesale market.

Indicative reductions in CO₂ emissions

2.13 The average annual CO₂ emissions per North Ayrshire Council tenant household has been calculated as 4.6 tonnes per year. It is estimated that the annual CO₂ emissions across the entire housing stock is 58,306 tonnes per year. If all recommended measures, with the exception of floor insulation, are implemented, emissions could be reduced by an estimated 6,269 tonnes of CO₂ per year, with the average annual CO₂ emissions per household (where measures have been applied) decreasing to 3.8 tonnes per year. Estimated reductions in emissions based on measures installed are set out in the table below.

Measure package	No. of properties to be installed with measures	Estimated CO ₂ emissions savings (tonnes / year)	Estimated average annual saving from each package per property (tonnes / year)
Fabric upgrades	1,550	1,195	0.77
Heating upgrades	725	363	0.50
Solar measures	4,278	2,745	0.64
Fabric + heating	200	203	1.02
Fabric + solar	754	1,083	1.44
Heating + solar	270	578	2.15
Fabric, heating + solar	46	102	2.21
	7,823	6,269	0.8 (average per household)

Gas alternative in Council housing stock

2.14 Decarbonisation of the gas supply has not been included in the proposals at this time, as this is dependent on the strategic decisions and infrastructure investment plans of the Scottish and UK Governments, alongside network operators, and is mostly beyond the direct influence of local authorities. Whilst the Council will continue to consider renewable energy systems government direction - alongside significant investment - is required to progress with the decarbonisation of the gas network to ensure a sustainable alternative. The heating measures proposed in the recommendations in this report focus on upgrades such as heating control upgrades for mains gas boiler systems, condensing boilers and high heat retention heaters.

This approach will be reviewed as technology progresses and new affordable solutions emerge.

Housing Revenue Account investment to support proposals

- 2.15 In the Housing Revenue Account 2021/22 Budget Report approved by the Council in December 2020, £5m was identified for investment in sustainability measures and regeneration projects. To date, £0.897m has been committed to support the provision of external wall insulation, and solar PV panels where appropriate as part of the roof and render contract.
- 2.16 The EESSH2 investment proposals outlined in this report have been developed in conjunction with a review of the Housing Revenue Account Business Plan, in preparation for the annual budget report to be presented to the Council in February 2022. £48.4m investment has been included in the 30-year Business Plan to achieve EESSH2 by the 2032 deadline, £24.4m of which focuses on the provision of solar PV panels.
- 2.17 A further £119.9m has been included in the Business Plan post-2032 to support future investment in sustainability measures, such as solar PV panels and external wall insulation, alongside associated lifecycle replacement costs.

Properties unlikely to meet EESSH2 following investment

- 2.18 If all measures with the exception of floor insulation are implemented, it is estimated that EESSH2 compliance in the 12,727 properties modelled will increase from 34 to 5,524 properties by the December 2032 deadline, totalling 43.4% of Council stock. The total stock and compliance number change regularly as a result of the new build development programme, Estate Based Regeneration Programme and empty and second home buy backs.
- 2.19 This model assumes that all proposed improvements are able to be installed with consent from the tenant, or adjoining owners where appropriate. The Scottish Government has recognised that in some circumstances tenants or owner occupiers may refuse to participate in the installation of energy efficiency measures necessary to achieve EESSH2. This situation can also arise in mixed tenure property if owners are unwilling or unable to contribute to the cost of common works. In such instances the landlord must make every reasonable effort to inform and explain to the tenant or owner occupier why the work is necessary, when it is being done, and why their participation and co-operation is so important. Where this has been satisfied, the property would be considered to be 'as energy efficient as practically possible'.
- 2.20 Any properties in this category will require careful review to consider appropriate engagement with tenants and owners, and support to homeowners to access grant funding where available. Regular monitoring and review will also be incorporated to allow improvements to take place at the earliest opportunity, should circumstances change. Properties will also be reviewed at the void stage to address any outstanding investment opportunities for investment to achieve the EESSH2 standard.

- 2.21 Based on the proposed model, 7,115 properties would fall into EPC band C, and the average SAP rating across the Council's housing portfolio would be 79.17, only 1.83 points below the threshold for EPC band B. Given that every reasonable effort will have been made to improve the energy efficiency of the stock, again the assumption is that these properties will be considered 'as energy efficient as practically possible'.
- 2.22 The Council has a responsibility to demonstrate this through an assessment of houses, or groups of houses, in the stock portfolio, which cannot be brought up to EPC band B, to show how it has decided that those houses have been made as energy efficient as possible, and why it considers any additional improvements to be either (a) technically non-viable, (b) not cost-effective or (c) unlikely to secure the necessary consent.
- 2.23 The model suggests that 88 properties will be in EPC bands D-F with the proposed improvements being implemented. Data analysis is underway to review future options for this group.
- 2.24 An asset performance review is planned as part of the ongoing review of the Council's performance against EESSH2. This will incorporate asset information, planned investment and housing management information and will facilitate options appraisals for properties for which achieving EESSH2, or close to the standard, is unlikely or will require unreasonable levels of investment. The properties identified as not being able to meet EESSH2 after applying all applicable measures are all over 50 years old and have either had all available measures applied or are unable to be upgraded further. Individual EPC surveys and further analysis will be required for these properties to ascertain if any further measures can be applied. It is worth noting that 25% of the properties that will not meet EESSH2 are within 3 SAP points of achieving a band B.
- 2.25 It is acknowledged that some of the housing stock is reaching the end of its useful economic life and selective demolition may be the most appropriate option, both in terms of suitability and condition. Any emerging proposals regarding demolition will be developed through the Estate Based Regeneration Programme which is presented to Cabinet annually for approval.
- 2.26 It is also anticipated that new technology and wider solutions to improve energy efficiency will continue to evolve at pace. Whilst the proposals outlined in this paper reflect current known technology and solutions, officers will continue to closely monitor the position to identify appropriate opportunities as they emerge for incorporation into the proposed suite of measures as and when appropriate. Further updates will be provided at the appropriate time.

3. Proposals

- 3.1 That Cabinet (i) notes progress to date against EESSH standards; and (ii) approves the proposed plan to achieve EESSH2 within the Council's housing stock or, make properties as energy efficient as practically possible, by the 2032 deadline.

4. Implications/Socio-economic Duty

Financial

- 4.1 Initial investment of £0.897m has been made from the HRA Sustainability and Regeneration Fund to facilitate the inclusion of external wall insulation and solar PV panels in the roofing and rendering contract.

Further investment of £48.4m is required to achieve EESSH2 by the 2032 deadline. This includes £24.4m investment in solar PV panels. A further £119.9m has been included in the Business Plan post-2032 to support future investment in sustainability measures, such as solar PV panels external wall insulation, alongside associated lifecycle replacement costs.

Human Resources

- 4.2 Delivery of the improvements will be through utilising and maximising current measured term contracts, ensuring that as many measures can be installed as practically possible at the same time to minimise disruption to tenants.

Legal

- 4.3 North Ayrshire Council has a legal duty to ensure its stock portfolio meets, or can be treated as meeting, EPC Band B (Energy Efficiency rating), or is as energy efficient as practically possible, by the end of December 2032 subject to the limits of cost, technology and necessary consent.

Equality/Socio-economic

- 4.4 Improving the energy efficiency of the Council's housing stock will contribute to providing affordable warmth for tenants.

Environmental and Sustainability

- 4.5 Work to date, and future proposals, align with North Ayrshire Council's ambitious Environmental Sustainability and Climate Change Strategy by supporting the Affordable Warmth workstream. If all measures recommended, with the exception of floor insulation, were implemented, emissions could be reduced by an estimated 7,894 tonnes of CO₂ per year. Furthermore, North Ayrshire Council has successfully installed two large-scale district heating schemes, at Glencairn House in Stevenston and Watt Court in Dalry. These are providing affordable, renewable heat to residents. Further implementation of the Affordable Warmth workstream including further district heating systems will be considered as appropriate in addition to the already established requirement for heat networks to be considered as part of the housing development process.

Key Priorities

- 4.6 The proposal supports the Council Plan strategic priority to ensure North Ayrshire is an inspiring place by providing affordable, modern and well-designed homes that meet residents' needs, and by providing a sustainable environment.

Community Wealth Building

- 4.7 This proposal aligns with the Council's Community Wealth Building 'Land and Assets' pillar by maximising the use of our land and assets by increasing their efficiency.

Community benefit clauses are included in all our measured term contracts to ensure that suppliers deliver wider social benefits as part of the contracts.

5. Consultation

- 5.1 An independent energy expert was procured to inform the preparation of this report, which has been jointly produced by Property Management & Investment and Housing Services.

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Background Papers

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