

THE HIGHLAND COUNCIL
LOCHABER AREA COMMITTEE

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Agenda Item	15
Report No	LA 29/15

Highland Council SHQS Energy Upgrading Process Briefing Report

Report by Director of Development and Infrastructure

Summary

This report provides an outline of how the Council have assessed the requirements for upgrading of Council houses to comply with the Scottish Housing Quality Standards for energy efficiency.

1. Background

- 1.1 The Council has a duty to meet the requirements of the Scottish Housing Quality Standard (SHQS). This is a minimum standard that has been set by the Scottish Government for all houses that are for rent by Councils and Housing Associations.
- 1.2 Housing must be energy efficient and this report relates to the requirements of energy targets for Highland Council owned residential dwellings. The requirements for the exercise are contained in the criteria issued in 2011 and specifically the minimum energy efficiency rating of Standard Assessment Procedure 2005 (ranging from SAP 50 to 59 depending on the fuel used to heat each specific property).

2. Assessment Procedure

- 2.1 The Council holds a range of information on its Housing portfolio, however the data held was not always validated and therefore verification of this historic information has proven to be difficult. The Housing information made available at the start of the SHQS programme originated from various sources such as:
 - historical area based housing records;
 - Maxim database;
 - Probbase database;
 - wall construction information;
 - stock survey data;
 - the Council's Housing Information System (HIS); and
 - gas servicing information.

All of these data sources were subsequently combined into the Stock Assessor programme for the determination of the energy rating for each property.

- 2.2 The data was rationalised and a number of assumptions have been made on the stock condition, type and previous works completed as these were essential in recognising the extent of the improvement works required going forward at each dwelling.
- 2.3 On commencement of the current SHQS Programme, a rationalisation and preparation task was required to be carried out to eradicate any data errors, and allow a more robust outcome. This included:
- the extraction of 1972 property records which form part of current or completed heating and/or external insulation projects (on the assumption that these properties will reach the SAP target with no further measures required);
 - the implementation of reasonable inferences and assumptions required to apply the measures necessary to analyse the stock;
 - the extraction of a further 119 property records which are provisionally earmarked for potential mains gas connection and heating replacement (on the assumption that these properties will reach the SAP target with no further measures required); and
 - separating all current SAP passes from the main exercise database to enable the SAP failures to be isolated for analysis.



This process identified a total of 5275 properties that would fail the required quality standard and these were taken to further assessment for housing improvement options.

- 2.4 The Standard Assessment Procedure (SAP) is the UK Government's recommended method system for measuring the energy rating of residential dwellings, and a simplified version, Reduced Data SAP (or RDSAP), is used to carry out energy ratings where a wide ranging quality of data is available. The improvement schedule generally follows the principles of RDSAP recommendations to a certain extent with a logical customisation where appropriate. A set of improvements were established as standard works to properties that would gain energy improvements and the "fabric first" approach has been adopted in the logical sequence of the modelling exercise. The table below shows the logical order followed during this process.

Stage	Measure
P01A	Loft Insulation
P01B	Loft Insulation Top-up
P02A	Cavity Wall Insulation
P03A	Hot Water Cylinder Insulation Upgrade
P03B	Hot Water Cylinder Thermostat
P04A-C	Heating Controls
01B	Heating - Mains Gas & LPG: Upgrade to Condensing Boiler
01C	Heating - Oil: Upgrade to Condensing Boiler
01D	Heating - Solid Fuel: Upgrade to External Biomass Boiler
01E	Heating - Electric: Upgrade to External Biomass Boiler
02A	Solar Water Heating
03A	External Wall Insulation
04A	Glazing - Upgrade to 100% Double Glazing
05A	Solar PV
06A	Roof Room Insulation
07A	Double Glazing – Replace Units

2.5 The agreed measures from the improvement schedule were applied to each property to establish the point of compliance. The intention of the study is to provide the lowest cost route to meeting the SAP requirements for each house. The chart below illustrates the effect of each type of measure through the decline in SAP failures after application:



3. Project Implementation

- 3.1 The modelling outcome produced a number of options that would be described as the basic direct components that will meet the SHQS standards, and these formed the basis of the work packages that have been undertaken to achieve compliance. Projects were formed and reported to members in the capital plan reports to Committee.
- 3.2 The heating upgrading elements formed the largest part of the project works, and the options that were proposed for housing upgrading mainly included full heating replacement with Biomass pellet boilers, as they provided the best value change to the SAP rating, with alternatives such as wood stoves and air source heat pumps taken from the Highland Council Heating Options Hierarchy assessed at project design stage.

Project Details	Properties
PROJ A1 - LI, CWI & HWC Upgrade - North Highland Additions	1203
PROJ A2 - LI, CWI & HWC Upgrade - South Highland Additions	667
PROJ B1 - Heating Controls - North Highland Additions	175
PROJ B2 - Heating Controls - South Highland Additions	54
PROJ C1 - Gas & Oil Boilers - North Highland & Lochaber	21
PROJ C2 - Gas & Oil Boilers - Nairn & Inverness	29
PROJ D1 – Heating Replacement - B&S	149
PROJ D2 - Heating Replacement - Caithness	223
PROJ D3 - Heating Replacement - Inverness	320
PROJ D4 - Heating Replacement - Inverness-shire	124
PROJ D5 - Heating Replacement - Lochaber	278
PROJ D6 - Heating Replacement - Nairn	14
PROJ D7 - Heating Replacement - R&C East	263
PROJ D8 - Heating Replacement - R&C West	212
PROJ D9 - Heating Replacement - S&L	105
PROJ D10 Heating Replacement - Sutherland	205
PROJ E1 - Heating Replacement - Caithness	142
PROJ E2 - Heating Replacement South Highland	187
PROJ E3 - Heating Replacement - R&C	298
PROJ E4 - Heating Replacement - Sutherland	377
PROJ E5 - Heating Replacement - S&L	132
PROJ G1 - ESP Gas Available - Inv, Nairn, R&C West	54
PROJ H1 - External Wall Insulation - North & South Highland	89
PROJ K1 - Roof Room Insulation - North & South Highland	13

All project evaluations were produced alongside good practice guidance contained within a final report underlining the importance of robust verification processes. At design development stages the appointed consultants are required to confirm the SAP rating and practicalities for each property to ensure individual site suitability and compliance.

- 3.3 The heating choices have followed the agreed policy hierarchy as detailed in the Council Delivery Plan (September 2009), although the options for newer

heating choices have subsequently been added to allow electric storage heating to be used where appropriate. The programme has resulted in 122 homes receiving heat pumps and 2 biomass in Lochaber to date, along with 184 biomass, 20 heat pumps, 12 stoves and 30 electric systems planned.

It should be noted that electric heating does have a negative impact on achieving the SAP standard and other forms of heating have been prioritised to get the best possible improvement.

4. Summary

- 4.1 The assessment of the Council housing stock to meet the requirements of the SHQS has been undertaken in a logical form that generated the lowest cost route to compliance.
- 4.2 Heating options have been selected to ensure compliance with the requirements of the standard, and simulated to ensure that the SAP rating is met at all stages.
- 4.3 Projects developed follow the recommendations of the assessment and follow the hierarchy of choice for Council heating options.

5. Tenant Satisfaction

5.1 Tenant satisfaction with HRA Capital Programme works 2014-15

As part of our Annual Charter Return to the Scottish Housing Regulator, Community Services has to provide details of tenant satisfaction. This includes satisfaction with capital works. We carry out these satisfaction surveys on an ongoing basis at all properties where we have carried out capital works. The core format of the surveys is a phone survey carried out by Business Support but we have also carried out postal questionnaires.

- 5.2 The questions are based on new guidance from the Scottish Housing Regulator and were developed following guidance from independent customer survey agencies such as Ipsos Mori.

The survey results indicate:

- 84.3% of respondents were very/fairly satisfied with the information they got from the Highland Council before work started;
- 92.5% of respondents considered the contractors helpful if they had to speak to them;
- 88.7% of respondents were very/fairly satisfied with the quality of the completed works; and
- 88.8% of respondents who had heating installed would recommend their system to other tenants.

The survey feedback is used to help identify any performance issues or tenant concerns relating to capital works.

5.3 A technical study is to commence this winter to examine the consumptions, performance, and cost of a sample of new heating installations. This will be undertaken focussing on a selection of homes, partly from the study and will include those highly satisfied and very dissatisfied along with some different heating and house types. A report will be brought to Committee on completion.

6. Further Considerations

6.1 The Scottish Housing Quality Standard has now been superseded, with new requirements for compliance by 31 December 2020. The energy efficiency elements have been revised to the new Energy Efficiency Standard for Social Housing (EESH) with improved minimum standards.

6.2 There will be new investment requirements for the Council in terms of the management of the data and the physical improvements of the stock. The Council must have stock assessment database that covers 100% of the property elements including all relevant SHQS information. The Council will need to improve a large proportion of houses to meet higher ratings and efficiencies.

Dwelling type	EE Rating (SAP 2009)	
	Gas	Electric
Flats	69	65
Four-in-a-block	65	65
Houses (other than detached)	69	65
Detached	60	60
Other fuels – SHQS requirements		

6.3 The additional requirements for the energy standard may require new thinking on how best to meet these and a 5 year programme is to be put to the Community Services Committee. A range of options are being planned with a focus on age of heating systems for replacement and district heating may need to be considered as a long term improvement for heating solutions.

7. Implications

7.1 There are no resource, risk, legal, equality, rural, Gaelic, or climate change/Carbon Clever implications associated with this report.

Recommendation

Members are asked to note the contents of the paper.

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