



HOUSING COMMITTEE

Thursday, 18 November 2021

REPORT TITLE:	UPDATE ON LOW CARBON HOUSING RETROFIT PROGRAMME
REPORT OF:	DIRECTOR OF REGENERATION AND PLACE

REPORT SUMMARY

This report sets out for members the scale and challenge of carrying out low carbon housing retrofit of Wirral's housing stock. Low carbon housing retrofit supports at least three aims of the Wirral Plan 2021-26:

- Deliver regeneration, growth and transport ambitions;
- Create jobs and support local businesses; and
- Respond to the Climate Change Emergency.

This matter affects all Wards, with a particular focus on the current retrofit programme in parts of the Wards of Bidston & St James, Birkenhead & Tranmere, Bromborough, Claughton, Greasby, Frankby & Irby, Liscard, Oxton, Prenton, Rock Ferry, Seacombe and Wallasey.

This matter is not a Key Decision.

RECOMMENDATION

The Housing Committee is recommended to note the report and is further requested to support the current programme of work, which is delivering energy efficiency improvements to Wirral's current housing stock and planning for future delivery as detailed in the report.

SUPPORTING INFORMATION

1.0 REASONS FOR RECOMMENDATION

- 1.1 To enable Members to be fully informed of the scale of retrofit required across the Borough, what is needed to improve Wirral's housing stock and acknowledge the commencement in the last six months of bidding for and delivery of new programmes.

2.0 OTHER OPTIONS CONSIDERED

- 2.1 The option to not bid for government funds has not been considered as the council needs to maximise all funding opportunities for low carbon housing retrofit to meet the Climate Emergency challenge and to improve people's lives through warmer homes and low energy bills.
- 2.1 The option of bidding for a greater amount of government funding was considered however the level of funding recently requested reflects the current demand for improvements from residents generated from a range of communications whilst meeting deadlines for delivery set by government.

3.0 BACKGROUND INFORMATION

3.1 Cool 2

- 3.1.1 Wirral's Climate Change Strategy, Cool 2, has a target of making sure all homes currently below Energy Performance Certificate (EPC) Band C that can be upgraded are improved to this level or better by around 2030. This is one focus of the Cool Wirral Partnership's Low Carbon Buildings Task Force. To assist the Task Force in making recommendations on how this is achieved, Energy Saving Trust (EST) were commissioned to provide the current picture with regards to the energy efficiency of housing in Wirral and to provide scenarios which lead to the EPC Band C target being met by 2030.

3.2 Overview of current performance

- 3.2.1 The Energy Performance Certificate (EPC) rating for a property is an indicator of its overall energy efficiency and running costs. Band A is the most efficient and Band G is the least efficient.

EPC Band	% of Wirral dwellings
A and B	4%
C	22%
D	46%
E	23%
F and G	5%

Compared to larger regional and national trends, Wirral has a lower percentage of properties in the A-C bands and a higher percentage in the E band. This is considered to be the case because Wirral has more large, old properties with

uninsulated, solid walls. For example, 40% of Wirral's housing stock is semi-detached, compared to 34% in the North West and 27% in England.

3.2.2 Lower Super Output Areas (LSOAs) are areas which have been created by the Office for National Statistics which contain between 400 and 1,200 households. The majority of LSOAs in Wirral have an average EPC rating of Band D. There are 28 LSOAs that have an average EPC rating of Band E and these represent the greatest potential for energy efficiency improvements within Wirral. They are clustered around Wallasey in the north, Bebington in the east and Raby, Thornton and Heswall in the south. The LSOAs bordering the M53 between Moreton and Bidston have the highest efficiency within Wirral. This is due to the larger concentrations of Registered Provider stock that have been built or retrofitted with a view to higher efficiency.

3.2.3 Key characteristics that contribute towards the energy efficiency performance of Wirral's housing include the following:

- 51% of homes have cavity walls, less than the regional and national averages (74% and 65% respectively). Of these, 78% are insulated;
- 46% of homes have solid walls, more than the regional and national averages (21% and 28% respectively). Of these, just 12% are insulated
- Half of Wirral's properties have at least 150mm thickness of loft insulation installed, which is higher than both the regional (46%) and national (39%) averages. Wirral had a programme of free loft insulation installation during 2010-13 which has probably contributed to this being higher. Around 13% of homes do not have lofts;
- Only 5% of dwellings have floor insulation, which aligns with regional and national averages. 35% of Wirral's homes have suspended timber floors, and although slightly disruptive, can easily be insulated when compared with solid floors;
- A large majority of Wirral properties (92%) use mains gas as their primary heating fuel (10% more than the national average), with only 6% on electricity and 3% on other fuel types;
- In Wirral, nearly 95% of properties have doors and windows that are predominantly double or triple glazed, which is characteristic of the regional trend and slightly higher than the national average;
- Approximately 41% of residential properties in Wirral are suitable for the installation of solar systems (based on roof orientation, property type and listed building status). This is lower than both the regional (45%) and national average (49%).
- 3% of homes in Wirral do not have cavity or solid walls and are either system-built or timber framed.
- Around 2,250 homes in Wirral have photovoltaic panels installed under the old Feed-in tariff scheme

3.2.4 Wirral's ambitions to increase the residential housing stock to a minimum of EPC Band C means there will be more properties requiring more significant retrofitting than in an average local authority.

3.3 Improvement Scenarios

3.3.1 In their report, the EST provided three scenarios for Wirral's Low Carbon Buildings Task Force to consider:

1. All properties below a Band C are brought to a Band C where possible, using cost effective improvements ("Band C scenario");
2. All properties, regardless of starting point, are brought to their maximum energy efficiency, using cost effective improvements ("high ambition scenario");
3. All properties, regardless of starting point, achieve their maximum thermal performance cost effectively and heat pumps are included where feasible, excluding flats ("fuel switching scenario").

3.3.2 Maximum thermal performance means that properties are insulated as much as possible considering expenditure on such measures against energy saved. For example, if a loft is not insulated, it is insulated to 300mm thickness. Anything beyond this thickness does not produce much more in terms of energy savings.

3.3.3 The fuel switching scenario was further divided into:

- a) A "realistic scenario" where heat pumps would only be installed in suitable off-gas or on-gas properties with a current EPC Band C or higher (i.e. efficient enough that electrifying heat should not adversely impact fuel bills); and
- b) An "Upper bound scenario" where heat pumps for all buildings that are currently suitable (i.e. excluding flats) have one installed.

3.3.4 All scenarios provide the number and type of improvements required, which are substantial. The Band C scenario, as an example, states the following requirements:

- 50% of lighting outlets upgraded to low energy lightbulbs;
- Condensing boilers and thermostatic radiator valves installed in around 50,000 properties;
- New insulated uPVC doors, draught proofed external doors, and A-rated uPVC glazing in around 40,000 homes;
- Loft insulation top-ups are recommended in over 37,000 properties;
- Internal wall insulation and suspended wooden floor insulation in around 26,000 properties;
- External wall insulation in around 17,000 properties; and
- Cavity wall insulation in around 12,000 properties.

The EST report precedes the recent government announcement on the phase out of the installation of new natural gas boilers from 2035, which may impact upon decision making when a gas central heating boiler requires replacement.

3.3.5 A summary of measures, investment, energy bills savings and CO₂ emissions savings for the scenarios is as follows:

Scenario statistic	Band C	High ambition	Fuel switching	
			Realistic	Upper
Total recommended measures	470,575	892,061	898,076	914,855
Recommended measures per home (average)	4.0	5.9	5.9	5.9
Total investment	£0.8 billion	£1.8 billion	£1.9 billion	£2.4 billion
Investment per home	£6,894	£11,799	£12,458	£15,760
Energy bill savings per home	£287/yr	£307/yr	£280/yr	£227/yr
Total CO ₂ reduction from housing in Wirral	14%	20%	20.5%	26%

3.3.6 The fuel bill savings are lower in the Fuel Switching scenario compared to the High Ambition scenario because heat pumps increase electricity consumption, which is a higher cost fuel than gas, thereby resulting in higher fuel bills.

3.3.7 Although the figures above may seem daunting, it provides a good insight into the scale of the challenge ahead. In addition, it gives an indication as to the local opportunities available in this employment sector and the value to the local economy.

3.4 Area-based targeting

3.4.1 As part of their commission, EST also provided an address-level database to assist the Council in targeting of geographic areas. Each address has around 70 datasets, providing many variables by which an area may be chosen, for example to target local communications on a national grant scheme or to select areas in which to focus local energy efficiency grant schemes so that they have the biggest impact on addressing fuel poverty. The latter approach has been utilised by the Council for bidding and implementation of the Government Programme - Green Homes Grants Local Authority Delivery.

3.5 Fuel Poverty & Energy Efficiency Programme

3.5.1 An important part of low carbon retrofit is the provision of tailored impartial advice where residents can seek information on energy efficiency improvements and what financial assistance is available for them. The Council's Fuel Poverty & Energy Efficiency Programme contract, currently with Energy Projects Plus, is a key part of this. Contract outputs are focussed on the provision of telephone advice, in-home / virtual in-depth advice and assistance with grant applications and communicating the assistance available through mailings to residents.

3.5.2 In addition, the current service delivered under the Council contract links in with other projects based at Energy Projects Plus that provide low-cost energy efficiency measures, fuel debt clearance, grants for first time central heating, grants for replacement boilers and the LCR Collective Energy Switch. It has also provided a

springboard, due to the council contract, for bidding for and delivering other funding streams including the Council's COVID Winter Grant Scheme 2020-21.

3.6 Current Retrofit Programme Delivery

- 3.6.1 Since spring 2021 and the Government's change to delivery of the National Green Homes Grant Programme, Wirral Council has been working with the Liverpool City Region Combined Authority (LCRCA) and its constituent local authorities on setting up a delivery mechanism across the LCR for Green Homes Grant Local Authority Delivery Phase 2 (LAD2). The LCRCA is the local accountable body for the scheme.
- 3.6.2 Through LAD2, owner-occupied low-income households can receive an average of £10k, whilst tenants in social or private rented properties can receive up to £5k of grant if this is matched by landlords contributing at least one third of total costs. Low income is defined as a household income of less than £30k per annum before housing costs, or £20k per annum after housing costs. There are, however, flexibilities provided to local authorities to select other criteria to target fuel poor households that may need bigger incomes due to larger family sizes. Councils within the Liverpool City Region have adopted this approach.
- 3.6.3 Social homes can only be included in LAD2 where it enables cost effective delivery of the scheme in neighbouring privately-owned properties, for example in a multi-tenure block of flats. Social housing is not part of the Wirral scheme due to this restriction as most of the poor efficiency social housing does not neighbour poor efficiency private housing. Registered Providers of social homes are instead bidding for the Social Housing Decarbonisation Fund (see 3.7 of this report), which also provides greater funding levels per property to allow whole-house retrofit to bring the properties up to EPC Band C.
- 3.6.4 Under Phase 2 of the scheme, the Liverpool City Region (LCR) received around £10m of capital funding with £2.3m of capital funding being made initially to Wirral to improve the energy efficiency of homes in the Borough. This will equate to around 250 grants being delivered to Wirral residents.
- 3.6.5 Over the spring and summer, whilst LCRCA have been setting up internal resources and mechanisms to deliver the scheme and have been procuring contractors to survey properties and install measures, Wirral Council has been promoting the scheme to residents. 20 LSOAs were selected for the scheme, based upon energy efficiency and household income characteristics taken from the extensive EST data. Interest in the grant from residents led to over 500 households making contact, with around 310 being assessed as eligible and moving on to survey stage. At the time of report writing, 105 surveys have been completed, which is the highest number of all local authorities in the LCR.
- 3.6.6 In late September 2021, Next Energy were appointed by the LCRCA as the managing agent for delivery. The company is based in Knowsley and has a good track record of delivering low carbon retrofit projects. Installation of measures commenced week beginning 11th October 2021 and as at 31st October 2021, 28 Wirral homes had received improvements (28 solar PV, 1 underfloor insulation, 1 loft insulation and 2 glazing).

3.6.7 The scheme will deliver some installations of solid wall insulation, but not as many as envisaged when the programme delivery was first looked at in spring 2021. The main limiting factor is cost. Solid wall insulation costs have risen, due in part to the additional standards introduced within the accreditation scheme. Solid wall insulation for an average house now costs between £15,000 and £20,000, with the average grant across all properties needing to be £10,000. Some properties will receive the measure whilst other properties will only receive lower cost measures. How properties will be selected to receive solid wall insulation through the grant in Wirral are still being worked through. It is likely to include technical ease, due to tight delivery timescales. Installation is to occur when weather will be a limiting factor on speed of installation. Subject to a successful LCR Combined Authority bid outcome for a further funding pot known as Sustainable Warmth (see section 3.7), there will be an opportunity to revisit homes identified under LAD2 as needing solid wall insulation.

3.7 Sustainable Warmth and Social Housing Decarbonisation Fund

3.7.1 On 28th May 2021, the government put a call out for expressions of interest in the next round of retrofit funding, with a deadline of 18th June 2021. Known as “Sustainable Warmth”, it combines a LAD Phase 3 (£200m nationally) with a new funding stream called Home Upgrade Grant (£150m nationally) for properties not heated by gas. This is a competitive round of funding, different to LAD2 where funding has been allocated to each region.

3.7.2 Both funding streams are again to be focussed on privately owned homes and those that are in Bands E, F or G. Due to the work already undertaken across the LCR as part of LAD 2 and for Wirral’s bid to be more competitive in a bidding framework, the LCRCA submitted a bid on behalf of the LCR local authorities and has agreed to act as accountable body for the Sustainable Warmth programme. An announcement was expected in early October 2021 and then as part of the Spending Review however the bid outcome has yet to be announced. The LCR has bid for £27.9m from Sustainable Warmth. If approved at the level requested by Wirral of £5.3m, the programme would see a further 500 Wirral properties improved.

3.7.3 A call for bids was also made for the Social Housing Decarbonisation Fund Wave 1 which is aimed at the housing stock belonging to Registered Providers (RPs) of social housing, with a closing date of 15th October 2021. Again, the LCRCA agreed to lead the submission and be the accountable body. Nine RPs make up the final bid that was submitted, with three of these submitting around 260 Wirral properties for improvement. The bid outcome is due in December 2021 with delivery to commence in January 2022. The RP properties are focussed on North Birkenhead (Magenta), Greasby (Plus Dane) and Central Birkenhead, Tranmere and Seacombe (Regenda). Housing stock in these areas has been selected by the RPs due to being the worst performing in terms of energy use.

3.8 Future Programmes and Government Policy

3.8.1 The government have stated that any future state-funded programmes are subject to spending reviews however there will be future phases of the Social Housing Decarbonisation Fund and Home Upgrade Grant, but not Green Homes Grant Local Authority Delivery.

- 3.8.2 The Energy Company Obligation (ECO) is a government energy efficiency scheme for low income and vulnerable energy customers which aims to reduce energy bills and carbon emissions. The scheme is supplier led and paid for by a levy on customer bills. ECO is likely to continue its focus on targeting energy efficiency improvements to privately owned fuel poor households in the 2022-26 period. It will however change to more of a “whole house retrofit” approach in order that, where possible, one single grant intervention is able to bring EPC Band F or G properties occupied by fuel poor households to at least EPC Band D, and EPC Band D or E properties to at least EPC Band C. It would also be a “fabric first” approach, whereby insulation improvements are prioritised.
- 3.8.3 As part of the government’s Spending Review, the LCRCA requested more long-term funding for low carbon housing retrofit, at a greater level, to reflect the region’s poorer quality housing stock.
- 3.8.4 For improvements to the private rented sector, the government have proposed a tightening of the Minimum Energy Efficiency Standard regulations, which currently require properties to meet EPC Band E. The proposals suggest a transition to 2028, by when private rented properties will need to be EPC Band C.
- 3.8.5 Regulation for low carbon improvements to social homes is expected in a reformed Decent Homes Standard, which the government has committed to review within their Social Housing White Paper.
- 3.8.6 Within the owner-occupied housing sector not occupied by fuel poor households, which makes up most of the housing in need of improvement, there is so far, no clear path on how the transition to low or zero carbon is to be achieved. The government released their Heat and Buildings Strategy on 19th October 2021, within which there is a focus on the decarbonisation of heat through phasing out tradition boilers from 2035 and introducing financial support for heat pumps with grants of £5,000. With regards to financial support for wider energy efficiency improvements, including the thermal upgrades required to ensure the operating costs of heat pumps do not push households into fuel poverty, the government are still reviewing options. There does however seem to be a focus exploring tighter regulation, for instance when a property is renovated or extended, as well as the provision of green finance through mortgage lenders, to take advantage of the key moments in a home’s lifecycle where energy efficiency upgrades can be implemented.
- 3.8.7 Building regulations are to be tightened for new-build properties over the coming years, eventually with the introduction of the Future Homes Standard, which will ensure that from 2025, new buildings are constructed to a high standard of energy efficiency with low carbon heat sources without later need for retrofitting.

3.9 Local Supply Chains

- 3.9.1 There is a desire amongst the LCRCA and its constituent local authorities to ensure that wherever possible, local companies can benefit from low carbon retrofit projects and that local people are able to receive the training and skills necessary for the delivery of retrofit projects, from Retrofit Co-ordinators to installers. The main constraining factor recently has been the stop-start funding from central government,

which can lead to investment by companies in expansion and accreditation but then de-investment when schemes come to end, which happened with the Green Homes Grant Voucher Scheme.

- 3.9.2 To be able to deliver the various elements of retrofit projects using government funding, companies must be accredited under the TrustMark scheme or the Microgeneration Certification Scheme for renewable energy installations. Quite rightly, this relatively recent accreditation process for retrofit projects ensures good quality advice, surveys and installations which will mean fewer negative issues arising, immediately or into the future, from poor delivery.
- 3.9.3 The pool of accredited companies and individuals based in the LCR to carry out the installation work is small, and even smaller in Wirral consisting of only 11 Retrofit Assessors, 3 Retrofit Co-ordinators and 3 installation companies. The LCRCA is working to understand the challenges faced in upskilling and growing installer supply chains. The outcome of a questionnaire and survey of low carbon housing related companies carried out earlier in the year should help the LCRCA and the Local Authorities target initiatives for businesses to improve and bolster the supply chain. The LCRCA is also ideally placed as it facilitates the Kickstart Scheme.
- 3.9.4 The procurement framework which has been developed by the LCRCA does stipulate that contractors ensure inclusion of local companies and supply chains as well as ensuring opportunities for training and apprenticeships are realised, which will be implemented by Next Energy.

4.0 FINANCIAL IMPLICATIONS

- 4.1 There are no direct financial implications for Members to consider however it should be noted that the works which are being delivered as part of the LAD 2 programme is through £2.3m of grant funding secured as part of the wider LCRCA Retrofit Programme which includes costs associated with programme delivery including promotion off the scheme.

5.0 LEGAL IMPLICATIONS

- 5.1 The Council and the LCRCA have signed a joint Memorandum of Understanding for LAD2 to ensure each organisation's roles and responsibilities under the programme are clearly set out.
- 5.2 There are no legal implications arising out of this report.

6.0 RESOURCE IMPLICATIONS: STAFFING, ICT AND ASSETS

- 6.1 The delivery of the LAD 2 programme is being managed through an external contract however staff from within Housing Services are required to support the programme, ensure alignment with the overall wider LCRCA programme and ensure compliance via a Memorandum of Understanding with the LCRCA.

7.0 RELEVANT RISKS

- 7.1 The LCRCA have a risk register for delivery of the current LAD2 programme, which is constantly updated and reported to the Programme Board monthly, with mitigation in place.
- 7.2 Delivery of solid wall insulation within the timescales given is a challenge, as the average installation now takes five weeks, however properties will only be selected if it is certain the installation can complete in time. Eligible properties that cannot have solid wall insulation installed in LAD2 will be rolled-forward to Sustainable Warmth, subject to a successful bid outcome.
- 7.3 As this report is for information only, there are no risks associated with the recommendation.

8.0 ENGAGEMENT/CONSULTATION

- 8.1 Briefings have been shared with Ward and Committee Members regarding the LAD2 delivery. Communications to owner occupiers, private tenants and private landlords on LAD Phase 2 has occurred through several media including letters, press releases and social media.

9.0 EQUALITY IMPLICATIONS

- 9.1 Wirral Council has a legal requirement to make sure its policies, and the way it carries out its work, do not discriminate against anyone. An Equality Impact Assessment is a tool to help council services identify steps they can take to ensure equality for anyone who might be affected by a particular policy, decision, or activity.
- 9.2 The Retrofit Programmes are available to those households who live in homes that have been identified as being in fuel poverty and have the greatest need to see improvements in thermal efficiency therefore bridging the gap on inequality of those living in fuel poor homes and likely to be more susceptible to health problems made worse by cold or damp homes.

10.0 ENVIRONMENT AND CLIMATE IMPLICATIONS

- 10.1 The activity contained within the report will lead to direct CO₂ savings from homes and contribute to the Cool 2 Climate Change ambitions.

11.0 COMMUNITY WEALTH IMPLICATIONS

- 11.1 As outlined in 3.9 of this report, Council officers are keen to ensure that local employment and training opportunities are maximised through retrofit programmes.
- 11.2 Low carbon housing retrofit will lead to energy bill savings, resulting in a greater level of disposable income for households.

REPORT AUTHOR: **Ed Kingsley**
(Principal Strategic Housing & Investment Officer)
telephone: 0151 691 8243
email: edwardkingsley@wirral.gov.uk

APPENDICES

None.

BACKGROUND PAPERS

1. *Cool 2*, Wirral Council, December 2019.
2. *Decarbonising Wirral Buildings – Final Report*, Energy Saving Trust, December 2020.
3. *Home Energy Performance Retrofit: funding for local authorities and housing associations to help improve the energy performance of homes*, Department for Business, Energy & Industrial Strategy website, June 2021.
4. *Design of the Energy Company Obligation ECO4: 2022-2026*, Department for Business, Energy & Industrial Strategy website, July 2021.
5. *Improving the energy performance of privately rented homes*, Department for Business, Energy & Industrial Strategy website, September 2020.
6. *The charter for social housing residents: social housing white paper*, Ministry of Housing, Communities & Local Government, November 2020.
7. *Heat and buildings strategy*, Department for Business, Energy & Industrial Strategy, October 2021.

SUBJECT HISTORY (last 3 years)

Council Meeting	Date
Item 6, "A new Climate Change Strategy for Wirral", Environment Overview and Scrutiny Committee	12 th March 2020
Item 21, "Environment and Climate Emergency", Extraordinary Meeting, Council	15 th July 2019