Domestic retrofit 2015
A national report on domestic retrofit in the social housing sector

Report by RE:NEW, National Energy Foundation and the University of Salford
RE:NEW

RE:NEW is the Mayor’s award winning programme to help make London’s homes more energy efficient. The role of the RE:NEW Support Team is to help registered providers and the private sector to increase the scale of domestic retrofit, speed up project delivery and improve value for money.

The RE:NEW Support Team engages with and supports London’s boroughs, social housing providers and private landlords. The support provided is FREE and is tailored to each organisation. Support involves a review of retrofit potential, formulation of retrofit projects (aligning with existing works such as planned maintenance where relevant), funding and procurement advice (including use of the GLA RE:NEW Framework) and support through the procurement process.

National Energy Foundation (NEF) is an independent charity that has been at the forefront of improving the use of energy in buildings since 1988. NEF aims to give people, organisations and government the knowledge, support and inspiration they need to understand and improve the use of energy in buildings.

The Applied Buildings and Energy Research Group has been established at the University of Salford to address issues of energy use in buildings. The focus is practical and as such covers issues ranging from monitoring energy demand, people and designing and delivering effective solutions to improve the performance of our buildings, as well as wider industry studies.

For more information visit www.london.gov.uk/renew
In a city where homes contribute 36 per cent of carbon emissions, and where 80 per cent of the current stock is expected to still be in use in 2050, domestic retrofit is a key priority for the capital.

In economic times, the rationale for retrofit remains as important as ever. This report was undertaken to understand the barriers to delivering programmes in today’s economic climate and establishing where organisations most need support to get those programmes off the ground.

Retrofitting homes not only cuts carbon emissions, it also makes it cheaper to heat our homes and overcomes issues around poor ventilation and damp. This helps lift people out of fuel poverty and reduces health problems associated with cold homes.

This report, which is as relevant to organisations beyond the boundaries of the M25 as it is to those in London, shows that what motivates us to deliver retrofit schemes are the benefits they bring to people and communities.

We must all continue to work together to ensure the progress and momentum created to date continues, not only to reduce emissions but also to ensure that more of our citizens are living in warm and healthy homes and, as a consequence, are living better lives.

This research has been used to inform the suite of services supplied by the RE:NEW Support Team, and to help generate further interest in the RE:NEW procurement framework, designed to help social housing and public sector organisations procure energy reduction and generation in homes efficiently, effectively and economically. If you have any questions about any aspect of the support available, the report, or would like to explore the national domestic retrofit picture further, please contact the RE:NEW Support Team: renew@london.gov.uk
Methodology

In a follow-up to a study undertaken in 2010 and 2013, this survey sought views on the opportunities, challenges and progress within energy efficiency retrofit across the UK social housing sector. The survey in Spring 2015 was carried out via telephone, email and using a dedicated online survey portal.

140 organisations responded.
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A national report on domestic retrofit in the social housing sector

24 months have passed since the previous national report. Developing and building on the previous endeavour, this survey, conducted in spring 2015, provides a comprehensive summary of the position of retrofit within the UK social housing sector – and presents the drivers and some of the challenges facing those responsible for delivering retrofit today.

UPWARD TREND IN ACTIVITY
Since the 2013 report many of the drivers and challenges remain the same, however there has been a ten per cent rise in retrofit activity.

TENANT WELFARE COMES FIRST
It is clear tenants are at the heart of retrofit decision making, with 83 per cent motivated by fuel poverty/tenant health and just 16 per cent by climate change.

LIMITED BUY-IN FROM BOARD
Two-in-five organisations do not have senior level buy-in, which may in turn affect strategic decisions, investment levels and monitoring practices.

SUBSTANTIAL SPEND AT RISK THROUGH LACK OF MONITORING
Despite tenant welfare driving many organisations to act, few organisations are committed to demonstrating the positive outcomes created for tenants through robust practices of measuring success. For those organisations investing over £2m, four-in-five are measuring the impact on less than half of that investment.

PROCUREMENT AN ISSUE FOR ALL BUT THE LARGEST PROGRAMMES
For all but the largest programmes procurement is a barrier – Over twice as many organisations estimating a lower retrofit spend find procurement a barrier than those with the largest estimated spend.
Across the UK

Beyond presenting the national picture, this report digs deeper to uncover regional differences in retrofit activity and there are clear differences in perceived barriers for retrofit for organisations from different regions, and in some cases within regions as well.

The drivers for retrofit are broadly similar across regions, with tackling fuel poverty/tenant health and reducing fuel bills and running costs being the overriding motivation across the country.

The most striking differences relate to organisation’s appetite for generating income – which is nearly twice as important a driver for the North and the Midlands than the South and London. Resident demand is between three and six times more important for organisations in the South and London than in the North and the Midlands.

Interestingly, the availability of finance in the Midlands is a key issue with just 19 per cent of respondents stating they have easy access to funding which is less than half of other regions.

The barriers facing organisations across the country are again broadly similar, with the exception of the North.

The North faces comparatively greater challenges in a lack of technical knowledge (at 24 per cent – nearly double the figure for other regions) and commercial difficulties such as a failure to establish a viable business model/strategy (an issue for 45 per cent of organisations against 33 per cent – the next highest – in London).

However, planning issues and resident resistance are both significantly lower than the other regions, suggesting a strong alignment between local authorities, housing providers and communities.

The situation in the capital

London shares the same priorities for retrofit as the other regions around fuel poverty/tenant health and reduced bills and running costs for tenants, and the availability of finance and government policy are seen as a more important driver in London than in the rest of the country.

However, London has two key barriers that are more of an issue than elsewhere – planning issues (a concern for 57 per cent of London-based respondents) and procurement (a concern for 28 per cent).

Other factors to come to light:

- 55 per cent of organisations in London see a lack of senior level buy-in compared with 40 per cent nationwide
- high levels of retrofit investment in London is second only to the North – 28 per cent report an anticipated spend of £2-5m+ versus 31 per cent elsewhere
- there is less of a drive to generate income from renewable energy in London
Retrofit in numbers

Total stock: 4,012,000

Number of Registered Social Landlords: 1,794

Average median spend per RSL: £1,304,410.87

The Midlands

Top priorities: Fuel poverty/tenant health | Reduced fuel bills
Lowest priorities: Resident demand | Available finance/Increasing asset value/Climate change
Key barriers: Lack of funding | Other organisational priorities

The North

Top priorities: Fuel poverty/tenant health | Reduced fuel bills
Lowest priorities: Resident demand | Climate change
Key barriers: Lack of funding | Other organisational priorities

London

Top priorities: Fuel poverty/tenant health | Reduced fuel bills
Lowest priorities: Climate change | Generating income from renewables
Key barriers: Lack of funding | Planning issues

The South

Top priorities: Fuel poverty/tenant health | Reduced fuel bills
Lowest priorities: Climate change | Generating income from renewables
Key barriers: Lack of funding | Planning issues
What’s driving and challenging the delivery of retrofit

The overall picture is one of good progress in the delivery of retrofit programmes, with more work being done now than ever before. Encouragingly, two-thirds of respondents have a strategic plan for retrofit delivery or are developing one now.

That’s up ten percent on the numbers in 2013. A further 19 per cent are also delivering without any plan in place, instead taking advantage of ad-hoc opportunities as they occur.

The picture is clearer for the drivers behind this upward trend in activity. Overall, 83 per cent cite tackling fuel poverty and reducing bills for tenants as their primary motivation.

However, one-in-ten housing providers that do not intend to adopt a retrofit strategy at all. This may be due to other strategic priorities or incorporation of retrofit within their wider asset management strategy.

Key findings

TENANT FOCUSED
Key drivers for adopting sustainable retrofit remain tenant focused - fuel poverty (83 per cent) and reducing fuel bills for tenants (73 per cent)

CLIMATE CHANGE OF LOW IMPORTANCE
The lowest driver is climate change (16 per cent)

STRATEGIC PREPARATION
Proportion of organisations with a strategy in place has increased by 10 per cent since the 2013 survey. However, 12 per cent don’t anticipate adopting a retrofit strategy

FUNDING STILL A CHALLENGE
Four-in-five say lack of funding remains a key barrier

TIME TO ACT
Majority that do anticipate delivering a strategy will deliver it in the next two years
Which of the following best describes your organisation’s current approach to the sustainable retrofit of your properties?

- Strategic plan in place and delivering: 34%
- Developing a strategic plan: 33%
- No plan but delivering improvements: 19%
- A few pilot projects only: 8%
- Stock doesn’t require further improvement: 6%
- Other: 0%

What are the key drivers to encourage your organisation to install sustainable retrofit measures in your housing stock?

- Government policy and targets: 41%
- Organisational commitment: 49%
- Available finance: 45%
- Resident demand: 21%
- Climate change: 16%
- Fuel poverty/tenant health: 83%
- Maintaining asset value/stock condition: 36%
- Increasing asset value/stock condition: 24%
- Maintaining lettability of property: 27%
- Reduced fuel bills and running costs for tenants: 73%
- Generating income from renewables: 22%

What are the key barriers which are preventing you installing sustainable retrofit measures in your housing stock?

- Lack of funding: 80%
- Lack of technical knowledge: 17%
- Difficulties in procurement: 24%
- Planning issues: 39%
- Lack of installation skills in the supply chain: 9%
- Resident resistance: 18%
- Too much long term risk e.g. defects or non-performance of equipment: 19%
- Commercial difficulties such as failure to establish a viable business model/strategy: 33%
- Other organisational priorities e.g. development/community investment: 48%
- Lack of in-house awareness of opportunities: 17%
Almost two thirds (60 per cent) of respondents say retrofit is actively championed at board level, which is positive. However, 40 per cent say it is not – a finding mirrored by board level respondents, with 38 per cent of CEOs agreeing that retrofit is not actively championed.

The findings demonstrate that the level of buy-in matters because it has a significant impact on the amount invested in retrofit, the development of commercial models to deliver it, and the monitoring of the positive outcomes created.

For example, just 13 per cent of organisations without buy-in have a strategic plan in place, contrasting with 56 per cent of those that do. Three times as many organisations that have buy-in from their board of directors measure the impact of retrofit on health outcomes for their tenants compared to those that don’t.

A lack of funding is cited as a barrier by fewer organisations where there is board level buy-in (75 per cent) than where there isn’t (85 per cent), and there is a significant difference in the integration of retrofit measures (55 per cent with buy-in, 17 per cent without).

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**Key findings**

**LESS STRATEGIC PLANNING**
Fewer organisations (just 13 per cent) have a strategic plan in place (compared to 56 per cent who do have buy-in)

**OPPORTUNITIES LESS SOUGHT-AFTER**
A lack of funding and lack of in-house awareness of opportunities are more common among those without buy-in at board level

**COMMERCIALITY A GREATER BARRIER**
Commercial difficulties, including failure to establish a viable business model/strategy, are a barrier to twice as many organisations without buy-in (46 per cent) as those with (24 per cent)

**REDUCED INTEGRATION OF MEASURES**
Just six per cent of energy efficiency measures are fully integrated with wider asset management programmes compared with 31 per cent of those with buy-in

**LOWER CONFIDENCE IN OUTCOMES**
Whether a cause or correlation, there is a clear link between buy-in at board level and organisational confidence in the value for money and efficiency of retrofit measures
What is your organisation’s estimated spend on retrofit in the previous/next 12 months?

Buy-in  No buy-in

![Spend Distribution](chart)

Are you monitoring any of the following pre or post performance factors of the properties you have upgraded?

<table>
<thead>
<tr>
<th>Factor</th>
<th>Buy-in</th>
<th>No buy-in</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy consumption</td>
<td><img src="chart" alt="Graph" /> 57%</td>
<td><img src="chart" alt="Graph" /> 56%</td>
</tr>
<tr>
<td>Environmental conditions</td>
<td><img src="chart" alt="Graph" /> 13%</td>
<td><img src="chart" alt="Graph" /> 11%</td>
</tr>
<tr>
<td>Health outcomes</td>
<td><img src="chart" alt="Graph" /> 21%</td>
<td><img src="chart" alt="Graph" /> 7%</td>
</tr>
<tr>
<td>Performance of specific measures</td>
<td><img src="chart" alt="Graph" /> 44%</td>
<td><img src="chart" alt="Graph" /> 31%</td>
</tr>
<tr>
<td>Resident surveys</td>
<td><img src="chart" alt="Graph" /> 66%</td>
<td><img src="chart" alt="Graph" /> 47%</td>
</tr>
<tr>
<td>No monitoring undertaken to date</td>
<td><img src="chart" alt="Graph" /> 18%</td>
<td><img src="chart" alt="Graph" /> 27%</td>
</tr>
</tbody>
</table>

Buy-in at board level is a key driver of retrofit activity, for investment, delivery and measurement. To support the roll out of retrofit across all communities in the UK more boards must buy-in to the benefits.
Nationwide, organisations large and small are investing in retrofit. However, the level of investment does not correlate with the size of the organisation as might be expected. Medium-to-large organisations are investing more pro-rata than the very largest stock holders.

There is also the consideration of when organisations are investing.

Almost a quarter of organisations estimate spending over £2m on retrofit in the next 12 months, demonstrating that many organisations are now ready to invest. Conversely, 45 per cent expect to spend less than £500,000.

There is a correlation between procurement as a barrier and the size of retrofit programmes.

Over twice as many organisations estimating a lower retrofit spend find procurement a barrier than those with the largest estimated spend. 25 per cent of organisations spending less than £500k say procurement is a barrier, compared to just 11 per cent of those spending over £5m.

The anticipated spend of all respondents is £118,701,389 (average median spend), with medium-sized organisations (10,001-50,000 properties) investing 60 per cent more per unit than the very largest organisations (50,001+).

Interestingly, four-in-ten organisations are actively exploring or developing new business models, which suggests many organisations have not yet found the right means of making their retrofit investment tell.

**Key findings**

ACCURACY OF STOCK CONDITION AN ISSUE
Those organisations with lower accuracy of stock condition are investing less in retrofit

BIG INVESTMENTS ARE UNDER WAY
Almost a quarter of organisations are spending over £2m on retrofit – 18 per cent estimate a spend of £2-5m, and six per cent a spend of over £5m, in the next twelve months

MEDIUM-SIZED ORGANISATIONS SPENDING MOST
Medium-to-large organisations (10k-50k properties) are spending 60 per cent more per unit than the largest organisations (50k+ properties)

PROCUREMENT AN ISSUE FOR ALL BUT THE LARGEST PROGRAMMES
For all but the largest programmes procurement is a barrier – Over twice as many organisations estimating a lower retrofit spend find procurement a barrier than those with the largest estimated spend
How would you describe your organisation’s current approach to the following?

<table>
<thead>
<tr>
<th>New business models for renewable energy projects</th>
<th>Whole house retrofit solutions</th>
<th>Smart meter roll out</th>
<th>Collaborating with other Registered Providers and Local Authorities to deliver community wide retrofit</th>
<th>Delivery of community wide retrofit</th>
<th>Working with the health sector to deliver retrofit</th>
<th>Local/community energy supply</th>
<th>Offsite manufacture of retrofit fabric solutions</th>
<th>Delivery of private sector retrofit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not interested 29%</td>
<td>Not a priority 28%</td>
<td>Interested 22%</td>
<td>Actively exploring 18%</td>
<td>Actively developing 17%</td>
<td>Delivering 18%</td>
<td>Not interested 22%</td>
<td>Not a priority 28%</td>
<td>Interested 22%</td>
</tr>
</tbody>
</table>

Which are the biggest challenges you face in procuring retrofit projects?

- Speed of appointment 29%
- Finding suppliers with skills and capacity 28%
- Complexities of contract types (e.g. bilateral, service concessions etc) 22%
- Breadth of the scope of projects for which procuring suppliers 18%
- Ensuring compliance and avoiding challenge 24%
- Cost of procurement 17%
- Limited capacity to deal with the procurement process 20%
- Aligning specific needs of retrofit projects to internal procurement process 32%

Investment is clearly an important decision that requires significant scoping before a retrofit plan can be put into action. Organisations should share the outcomes of their retrofit projects with peers to support innovation in the industry.
Will we know if retrofit has made a difference?

Organisations are most motivated to invest in retrofit because of the positive effects on health and economic wellbeing it will have for tenants. However, many are not monitoring the impact of their investments in this area and missing the opportunity to develop a strong business case for future investment.

Just over half of organisations surveyed are measuring energy consumption (56 per cent) and surveying residents (58 per cent), and as few as 14 per cent are measuring health outcomes, despite tenant health being a key driver for investment in retrofit.

Across the country, a key issue is the lack of monitoring taking place.

Over half of all organisations are not monitoring at all, or monitoring up to just ten per cent of the impact of retrofit on their investment in some 90 per cent of their upgraded stock. Nearly nine-in-ten organisations measure the impact on less than half of their investment.

A strong correlation between the amount of investment and level of monitoring exists, with those investing the least in retrofit also doing the least monitoring – yet four-in-five of the medium-to-largest programmes (£2-5m and £5m+) are not measuring the impact on over half of their investment.

There is the risk that many of the most costly investments in retrofit suffer from limited evaluation.

Key findings

**Mismatch between motivation and monitoring**
Although tenant health is a key driver for retrofit, only 14 per cent of organisations are monitoring the health outcomes of their retrofit activities.

**At risk retrofit spend**
Four-in-five of programmes investing over £2m are measuring the impact on less than half of their investment – leaving a gross ‘measurement deficit’ running into tens of millions of pounds.

**Strong link between investment and SAP ratings**
While too little measurement is undertaken, where impact is assessed, those organisations with a strategic plan in place have a higher SAP rating than those with no plan and, logically, those who invest more have a higher SAP rating. 57 per cent of upgraded stock has a SAP rating of 61-70, and a further 26 per cent a rating of 71-80.
A key driver of retrofit investment is to deliver benefits to tenants and it is a surprise – and a risk – that so few organisations are monitoring the outcomes. While resident surveys may capture the subjective benefits for tenants, more needs to be done to build the tangible evidence of the impact.
What must be done to really deliver on the promise of retrofit

Repeating this study two years on it is clear that some progress has been made, even as some of the perennial barriers and challenges remain the same. The uplift in retrofit strategy is a good and optimistic indicator of the wide variety of responses organisations across the country have taken to tackle the endemic residential challenges that blight tenants’ lives — fuel poverty and poor health outcomes. These three key themes, which we’ve highlighted throughout this report, are most prevalent to the future success of retrofit in the UK.

1) The social and business rationale for retrofit is clear

The findings show a powerful recognition of the potential retrofit holds to deliver positive impact to tenant’s lives across the UK. In austere times, with increasing pressures on disposable income, making properties more energy efficient is a proven means of putting more money directly back in tenants’ pockets.

Outside the scope of this survey, an increasing volume of research, pilot schemes and initiatives continue to underpin a broad-ranging strategic business case for retrofit – with positive correlations appearing in relation to health cost savings, rent arrears reductions, and repairs and maintenance, as well as less tangible impacts on regeneration and community cohesion.

These are the outcomes motivating much of the investment in retrofit, and it's clear that these are the benefits retrofit will achieve.

2) Monitoring the impact of retrofit is needed to make the case

To achieve universal recognition that these objectives can be achieved through retrofit requires greater commitment to monitoring and evaluation.

The scale of investment in retrofit is substantial and continues to increase and yet for many, monitoring and evaluating (particularly in relation to the primary drivers described above) continues to be overlooked.

Without evaluating the impact of retrofit projects the opportunity to identify the most effective measures and create efficiencies in future projects is missed.

In failing to thoroughly measure the impact of retrofit, the chance to demonstrate the fundamental strength of the business case is lost.
3) Gaining buy-in at board level is critical to deliver the aspiration

Overlooking the measurement and monitoring of retrofit programmes increases the difficulty of securing board level buy-in, and the importance of senior support for retrofit projects cannot be understated.

Perhaps unsurprisingly, a lack of support has a great impact on the underpinning strategy, the level of investment, and the level of interest in the outcomes delivered through retrofit – each serving to support a vicious circle pushing retrofit further down the list of strategic priorities.

Building a compelling business case is vital to turn this around.

Many organisations across the UK have done so and achieved the level of buy-in required, however the lack of knowledge sharing and common intelligence hinders those organisations where securing board level buy-in is more challenging.

Sharing best practice and success will generate greater interest, credibility and momentum around retrofit, and help drive the agenda for the benefit of both RSLs and, critically, their tenants.

Acknowledgements

Thank you to all those who contributed to this report. For further information, or if you have a question on any aspect of this report, please contact the RE:NEW Support Team:

E. renew@london.gov.uk
Methodology

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The survey was carried out in spring 2015 via telephone, email and using a dedicated online survey portal.

140 organisations responded.

Response profile

The survey was completed by social housing professionals in a number of roles, although the majority of responses were from asset managers and those working in environmental sustainability roles.

67 per cent of responses came from Housing Associations and a quarter from Local Authorities. Half of respondents are based in London, with the remainder split across regions nationwide.

Half of respondents were from organisations with 10k - 50k stock. A quarter of responses were from organisations with between 5k and 10k stock.

Statistical significance

The results in the audit are statistically representative and meet the industry standard of being to a 95% confidence level with a margin of error of ±7%. In other words, if the same number of people were sampled randomly on 100 occasions, the results would lie within ±7% of those given on 95 occasions.

The conducting agency

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