



Because good homes make everything possible

Sustainability Strategy 2021-2024

Network Homes

October 2021

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1. Introduction and objectives

This is Network Homes' first Sustainability Strategy. It sets out our approach to sustainability from January 2021 to January 2024 and the steps we want to take on the path towards a more sustainable future. The key aims of this strategy are to:

- Identify how our business activities affect the environment;
- Establish methods of improving our approach to sustainability;
- Improve the environmental performance of our existing homes;
- Outline new technologies and ways of working to reduce our carbon footprint; and
- Engage staff and residents with regards to green issues.

This document will support delivery of these aims. The strategy has been developed along with a supplementary sustainability action plan which will further support implementation. Sustainability should also be understood as part of the wider Growth, Asset Management and People and Culture Strategies, which sit within the context of our Five-Year Strategy 2018-23.

1.1. Five-year strategy

Sustainability is connected to Network's four strategic objectives:

1. Increasing the number of homes for people in housing need
 - Delivering on our strategic ambition of a minimum of 1,000 new affordable homes started by March 2023 will have a significant impact on the environment through use of construction materials, travel to and from sites, and changes to air quality while works are underway, whilst the new homes we are building will have much higher levels of environmental performance than our existing stock.
2. Delivering reliable resident services
 - Improving the environmental performance of our housing stock can help to keep customers' homes warm, reduce energy costs, alleviate fuel poverty and keep our homes in good condition.
 - We have moved to mobile and agile working, reducing the carbon footprint of our offices, and reducing staff travel. We are also improving the quality of our digital service offer, reducing the need for staff and residents to travel in order for services to be delivered.
3. Increasing our financial resilience
 - Pursuing sustainability goals has the potential to reduce organisational spend. For example, retrofit on existing homes could save a potential £270,000.¹ And prioritising durable design principles in new homes could reduce future maintenance spend.
4. Building a great organisation

¹ Estimation by SHIFT, Sustainable Homes. SHIFT (Sustainable Homes Index for Tomorrow) is the main sustainability standard for the housing sector.

- The 2017, 2018 and 2019 Best Companies Surveys revealed that staff thought Network could do more to protect the environment. This strategy sets a clear direction to inform staff and stakeholders and sets out what all can do to help protect the environment.
- Improving our reputation may yield financial benefits by strengthening our market position.

5. Strengthening residents' trust in us:

- In September 2020, findings from the Sustainable Homes Index for Tomorrow (SHIFT) reported that Network is currently lagging behind other major housing associations in relation to engaging with residents around sustainability issues and environmental performance.
- In line with SHIFT's recommendations, this strategy sets the clear goal to make resident engagement a key pillar of our commitment to sustainability, acknowledging the crucial role that resident engagement can play in informing residents about the ways they can make a difference, as well as empowering them to save both energy and money.

2. Internal and external context

In the face of the current climate emergency the case for improving our approach to sustainability has never been stronger. The cost of climate change over the course of the 21st century will be substantial. The need for businesses to act responsibly will become a key part of strategy and operations. On top of this, energy costs are expected to grow ahead of wages and inflation. As a housing provider for households often on low incomes, we can help prepare for a low carbon future and mitigate fuel poverty.

The public is becoming more conscious about green issues, and this is likely to bring greater scrutiny of large organisations. Network wants to be a leader in responding to the climate emergency. If not now, we will soon be pushed to become more transparent about our activities and accountable to our stakeholders on sustainability.

2.1. SWOT analysis

Below we examine the strengths, weaknesses, opportunities and threats of Network Homes' approach to sustainability.

Strengths

- Network Homes' average Standard Assessment Procedure (SAP) rating is 72 (band C). This is higher than the national average for social housing of 68.² This is largely supported by our new build programme; the average SAP of properties built in the last ten years is 76.

² English Housing Survey 2018, Annex Table 1.1

- An extensive stock condition survey was undertaken in 2014/15, which produced Reduced Data SAP (RdSAP) ratings for all rented properties. Network is well placed to determine how it could improve the performance of less energy efficient properties.
- We have started to use innovative and more sustainable materials and practices on our developments. For example, the Printworks Apartments were constructed using cross laminated timber (CLT), with a net zero carbon footprint.

Weaknesses

- Network does not have a dedicated sustainability team, nor did it until recently have a designated lead at Executive Leadership Team (ELT) level. Benchmarking suggests this is uncommon amongst peer organisations.
- Past campaigns to change behaviour (e.g. reducing printing and lift usage) failed to deliver a long-term impact.
- Data gaps exist around some more commonly used sustainability metrics e.g. carbon savings from transport reduction initiatives, and the amount of green space on our estates. Calculating these measures will increase staff workload.
- In the 2017, 2018 and 2019 Best Companies Surveys, staff rated Network poorly on its environmental impact.
- Network's business operations and the homes we manage are responsible for significant levels of greenhouse gas emissions, which will require significant investment to reduce. Our 2019/20 Streamlined Energy and Carbon Reporting statement shows that Network's business operations resulted in 7,221 tonnes of emissions equivalent to CO₂ (through use of gas and electricity, and business travel), while the homes we manage were responsible for 41,717 tonnes of emissions equivalent to CO₂.

Opportunities

- A number of economic benefits are associated with energy efficiency. Properties in SAP bands A and B have an improved sales value of 14% on average.³ Analysis on Orbit's stock by RE:NEW predicted £4million could be saved over 20 years through retrofit.⁴ And Sustainable Homes suggested Network could save £270,000 per annum through retrofit. Moving to the Hive has brought significant sustainability benefits and redeveloping Hertford offices would allow us to do the same.
- Sustainability investment could improve our external reputation and stakeholder perception. 82% of councillors said investment in a community, including green space, would make developments more acceptable.⁵ The Greater London Authority has set a target for London to be zero carbon by 2050, with London's buildings accounting for nearly 80% of its carbon emissions, and the UK Government has recently doubled down on their net-zero target by unveiling plans to cut emissions by 78% by 2035 compared to 1990 levels.

³ Energy saving measures boost house prices (2013) – gov.uk

⁴ Positive Energy – The Business Case for Retrofit. RE:NEW (2016)

⁵ Profitable Places: Why housebuilders invest in landscape (2014)

- Sustainability can produce significant benefits for our customers, e.g. cheaper energy bills and the health benefits of a warmer home. Fuel bills are paid for from low income residents' residual incomes, with no variance in benefits for the energy efficiency of a home. As a result, 84% of social landlords state their primary motivation for retrofit is to reduce fuel poverty and improve affordability.⁶
- Technological developments present an opportunity for landlords to have a greater impact on sustainability, e.g. smart-thermostats and the zero-carbon retrofit model Energiesprong.

Threats

- Producing a business case for a retrofit programme is challenging. External consultants Parity Projects estimate that achieving minimum SAP Band C on all existing homes could cost £13m. While work by Sustainable Homes and RE:NEW suggests there is a link between energy efficiency and reduced cost, the following threats mean the cost savings are not guaranteed.
- Upfront costs of retrofit remain high and can be prohibitive given the falls in Government subsidy. A lack of funding is cited by 79% of social landlords as the main barrier to retrofit.⁷
- Internal research found a relationship between energy efficiency and a reduction in repairs and days void. But the relationship is weak and does not guarantee retrofit would pay for itself in the long-term, with fuel cost reduction benefits accruing to residents not the landlord.
- A significant proportion of the savings assumed by Sustainable Homes and RE:NEW are management savings, e.g. less time spent on mould and condensation queries. However, poor performance by past contractors suggests that these savings are not guaranteed, and management costs may be high if retrofit results in unanticipated defects.
- Tackling fuel poverty is likely to involve retrofit measures to increase energy efficiency, as measured by SAP scores. The values in the HACT social impact calculator for social value generated by improving energy efficiency by a certain number of EPC bands are quite low, and although rectification of condensation and mould is also likely to deliver social value, it will be challenging to make business cases stack up if relying on social value as a return on investment.

3. Our approach

The following section outlines our intended approach to sustainability at Network Homes. There are seven main strands:

- Our existing homes;
- Our new homes;
- Our workplace;
- Our procurement;
- Energy management;
- Benchmarking;

⁶ State of the Nation Survey: Low Energy Retrofit in Social Housing (2017), p.4

⁷ Ibid.

- Financing of sustainability improvements; and
- Resident engagement.

3.1. Our existing homes

Improving the environmental performance of our existing homes is the most important strand of our approach to sustainability, and is therefore likely to require a higher commitment of financial resources over the medium- to long-term.

Not only are our existing homes much more numerous than new ones, they are also significantly lower in environmental performance. A more energy efficient property will reduce home energy usage, saving residents money and reducing carbon produced. Lowering fuel expenditure is one of the most effective ways of reducing poverty among low income residents.

Regarding compliance with regulation, in the recently [published](#) Energy White Paper, Government set their vision around transitioning to net-zero by 2050 – in line with their official commitment – and what this will mean for us all as consumers of energy in our homes and places of work. Greening our homes will especially require higher degrees of buildings insulation, combined with a shift from gas to electricity as heating energy source.

In relation to the social rented sector, both the Social Housing and Energy White Papers set the intention to undertake a review of the Decent Homes Standard to ensure it is consistent with updated regulation around energy performance. In its current form, the Standard does not include any minimum energy efficiency target for social housing, only mentioning that ‘homes should provide a reasonable degree of thermal comfort and be free of excess cold. This expectation is broadly equivalent to EPC Band F.’

The reviewed Standard will likely include stricter parameters and will consider the opportunity for improved regulation around Decent Homes to better support the decarbonisation and energy performance of social homes.

In line with most recent regulation, the 2019/20 SHIFT Assessment Report recommends Network prepare detailed plans to achieve an average of SAP 86 among existing homes by 2050, making sure that we are on track to deliver on Government’s expectations and in turn contribute towards the national goal of achieving net-zero emissions by 2050.

Table 1 below reports the number of existing homes for which we have Decent Homes Standard responsibility as a social landlord, grouped by SAP bands⁸.

SAP band	SAP score	Properties	% of stock
A	92-100	2	0.01%

⁸ SAP ratings show the energy performance of a property on a scale of 1 to 100, with A to G categories within this scale. The rating is a calculated based on energy cost per m2 and is linked to theoretical running costs. Once an SAP calculation has been agreed, it will be used to form the Energy Performance Certificate (EPC).

B	81-91	1,330	8.87%
C	69-80	9,379	62.56%
D	55-68	3,841	25.62%
E	39-54	425	2.84%
F	21-38	12	0.08%
G	1-20	2	0.01%
	Total	14,991	100.00%

Table 1 - Existing SAP/RdSAP scores for Network Homes' rented properties

On average, our existing stock recorded an estimated SAP of 72, which earned our homes an average EPC - Band C rating⁹. An EPC rates a property in bands from A (most efficient) to G (least efficient).

Of the almost 15,000 rented homes we currently manage, 71.44% falls into EPC - Band C rating or higher. In particular, amongst our most recently built homes, around 30% achieved a high EPC – Band B rating (SAP 86 – 91) – sitting within the current threshold set by SHIFT to be on track to net-zero – and the remaining 70% complied with building regulations minimum energy requirements of a low EPC - Band B rating (SAP 81-85). The majority of our new developments have in fact received a range of ecological enhancements including complete sustainable urban drainage systems, tree planting, blue/green roofs and bat boxes.

However, about 30% of our existing homes, or 4,280 properties falls into EPC - Band D rating or lower, and are therefore regarded by Government regulation as low-performing properties. These will require urgent retrofitting intervention over the short- to medium-term.

With this in mind, we are currently developing a phased approach to retrofitting that will enable Network Homes to significantly improve the environmental performance of existing homes over the next 30 years, allowing us to meet Government's targets by 2050. The retrofitting process will be implemented over three stages:

1. a short-term commitment to improve all tenanted homes to a minimum of EPC - Band D rating by December 2023;
2. a medium-term commitment to meet Government's ambitions around environmental performance of existing homes, as set out in the Clean Growth Strategy (2017): 'all fuel poor homes to be upgraded to Energy Performance Certificate (EPC) Band C by 2030 and our aspiration is for as many homes as possible to be EPC Band C by 2035 where practical, cost-effective and affordable'; and

⁹ In September 2020, the Government launched the Energy Performance Certificates Action Plan, which set out a pathway to improve the EPC system. The Action Plan will help to increase the energy efficiency of the building stock by exploring ways to increase the quality of EPCs, build consumer trust and increase engagement.

3. a long-term commitment to achieve an average of SAP 86 among existing homes by 2050, in line with SHIFT's recommendations.

To meet the first two improvement targets we will need to bring approximately 439 properties to a SAP level of 55-68 in the next three years, and retrofit a total of 4,280 homes to EPC - Band C rating – or a SAP level of 69-80 – over the next 9 years. Our plans to achieve these targets over the short- and medium-term have been extensively explored within the recently approved Asset Management Strategy, which provides details around costs of the retrofit programme 2021-2030, funding options and operational issues. As specified in the Asset Management Strategy, retrofitting our low-performing homes to an EPC - Band C rating by 2030 will entail a combination of:

- integration of energy improvement works within future planned works programmes; and
- recourse to external funding – both public and private – to deliver targeted interventions.

In relation to our more ambitious 2050 net-zero target, it is crucial that we identify potential project-partners able to support us through our path to achieving an average of high SAP - Band B (86-91) rating by 2050 across all our properties. In this regard, the Government is expecting businesses, homeowners and landlords to commit a larger proportion of financial resources and expertise to long-term investments in energy performance.

They suggest that making best use of a growing market for green finance products will be essential to leveraging private capital for long-term retrofit; this could be achieved, for example, by a greater reliance of the sector on established partnerships between specialised financial services firms and housing providers, manufacturers and energy services companies.

In line with Government's expectations, we are currently working on identifying alternative funding routes to embark on this long-term process. As part of this effort, we have already engaged with Pivot Energy on a pilot programme for working towards zero-carbon homes.

Moreover, it must be stressed that our ambitious 2050 net-zero carbon targets should also be taken into consideration in the short and medium time. Indeed, there will likely be situations where it proves more cost effective to try and achieve as high an SAP as possible rather than incrementally improve SAP by small margins over a long period of time.

The following paragraphs provide a summary of funding options and implementation of our retrofit programme over the short-, medium- and long-term. Detailed information around the retrofit programme 2021-2030 can be found in Network's Asset Management Strategy.

Retrofitting programme 2021-2030

We commissioned Parity Projects to produce cost estimates for improving our stock to Band D and Band C. The investment required to achieve Band D is estimated to be **£633,745**, or **£1,987 per unit**, whilst the total investment required to achieve SAP C has been recently reviewed from previous estimates, and is now set at **£13,028,006**.

According to Parity Projects, achieving SAP C would therefore require an investment of **£3,400 per unit**. This value seems rather favourable compared to a sector-average cost of £10,000 per unit. However, the sector average likely includes additional costs outside of just SAP improvements.

Furthermore, it is estimated that Improving our stock to Band C would generate a total of **£1,316,756 in social value**, as per HACT estimates.

The main external funding opportunities for this work are:

- A ten-year, £3.8bn Social Housing Decarbonisation Fund, promised in the Conservative Party's 2019 election manifesto. In September 2020, the Government launched a £50m Social Housing Decarbonisation Fund Demonstrator, a pilot made available to local authorities and council-led consortia, due to run until 2022. The National Housing Federation (NHF) have been lobbying the Government to deliver on their commitment of £3.8bn in support of the retrofit revolution in social housing. The future Fund is intended to be open to all social housing landlords to directly access funding.
- The £2bn Green Homes Grants scheme has been recently cancelled, after being highly criticised for long delays and a heavily bureaucratic process; however, a successor scheme might be on the way, especially since the Government announced their commitment to reduce emissions by 78% by 2035 compared to 1990 levels.

We produced a list of funding options to be regularly updated overtime, so we can continue to monitor Government grants and other external funding opportunities as and when they become available.

We have worked with Parity Projects to identify improvements through retrofit measures. The initial results were discussed by Investment Committee in September 2019. Initial suggestions have balanced improved sustainability outcomes with good value for money, to ensure we deliver the best results for customers and the environment. Where there has been a choice, we prioritised works:

- where an SAP improvement is most effective (dependent on overall cost);
- requiring low levels of future maintenance;
- avoiding any extension to Network Homes' service offer to residents; and
- where the impact of installation/maintenance is low.

If improvements are too expensive and unlikely to deliver social or financial value, we may survey the property again, in case calculations were made on inaccurate data.

One option in this area is to include SAP rating in our criteria for disposals of voids. This would be based on our proactive Disposal Strategy¹⁰ which will consider disposing of voids on the basis of cost, value, and desirability for residents, with SAP rating as a further criterion to use in marginal cases. The proceeds from disposals could be invested in new energy efficient homes. Suitable properties will be flagged on Northgate so disposals can be planned in advance of void stage. Properties which are part of larger estates will be excluded. We will not consider large scale disposal programmes of stock based solely on SAP or other sustainability ratings.

¹⁰ The Disposal Strategy forms part of Network's Asset Management Strategy, Chapter 3 'A phased approach to retrofitting', pages 11-12.

Once we have assessed suggestions for improvements, we will explore different avenues of delivery, and implement the most viable route through the Sustainability Action Plan.

Achieving net-zero carbon by 2050

Working towards net-zero emissions will require Network to develop a long-term plan aimed at bringing all existing homes up to an average of SAP 86 by 2050. As mentioned above, since this effort is likely to require substantial investments over the next 30 years, potential funding opportunities will need to be assessed overtime against Network's other priorities, as defined by our 5 Strategic Objectives.

In particular, as a social landlord we are responsible for delivering reliable resident service on a day-to-day basis, dealing with regular repairs and maintenance works, and as a housing association we also have the moral obligation to build much needed affordable homes for people in housing need.

We are therefore exploring innovative funding options, working closely with potential partners in the private sectors on the production of longer-term financial models to fund net-zero sustainability improvements.

In this regard, we have engaged Pivot Energy to present a model of funding sustainability improvements through accessing some of the savings achieved through lower utility bills. The model – currently under review – is based on a starter portfolio of 255 homes, around which Pivot Energy have constructed a pilot to test whether this could be scaled across Network's estate.

Ongoing activities

In terms of ongoing activities, overtime we will also keep an awareness of new and innovative technologies with the capacity to improve home energy efficiency and are prepared to trial products if they have the potential to achieve considerable social or financial benefits, as and when opportunities and funding become available.

Our residents also have a responsibility towards sustainability. We will continue to provide information on our website on how to maximise home energy efficiency, and provide advice through our welfare advisors, who can signpost customers to hardship funds offered by utility companies. We will also develop Sustainable Transport Plans for residents to encourage more sustainable travel choices in our communities.

Finally, we will work to improve our data on areas where this is lacking, as highlighted in the 2019/20 SHIFT report. This includes data on district and communal heating systems, water efficiency, types and sizes of existing green spaces, and overheating risks.

Summary of proposals:

- 2.1 We will aim to bring our worst performing stock to a minimum of EPC Band D by December 2023, with a view to bringing all stock to a minimum of Band C by 2030 funded through our existing business plan sustainability allocation of £60m..
- 2.2 We will commit to achieving an average of SAP 86 among existing homes by 2050.
- 2.3 We will undertake retrofit solutions based on the most efficient, simple solutions with least management responsibility and tenant disturbance.
- 2.4 We will consider incorporating SAP rating in our criteria for disposals of voids.
- 2.5 We will survey properties where we have reduced information or believe data is inaccurate.
- 2.6 We will continue to update our knowledge on new and innovative technologies to improve home energy efficiency. We may pilot products with the capacity to achieve considerable social or financial benefits.
- 2.7 We will continue to publish guidance for residents on how to maximise home energy efficiency, and signpost utilities hardship funds through welfare advisors.
- 2.8 We will improve our data collection and management in sustainability areas where this is currently lacking.

3.2. Our new homes

As a housing provider, it is vital for Network to be aware of how impactful the construction industry is on emitting increasingly dangerous high carbon levels into our atmosphere. The built environment currently accounts for 42% of the UK's total carbon emissions, making it one of the most polluting industries.¹¹ According to the Technology Strategy Board, 27% of total carbon emissions in the UK are from domestic buildings alone.¹² Sustainable changes in this sector could lead to a significant decrease in carbon emissions.

In 2019, the UK Government committed to achieving net-zero carbon emissions by 2050. The Government has recently doubled down on this ambitious target by unveiling plans to cut emissions by 78% by 2035 compared to 1990 levels, which would bring the UK more than three-quarters of the way to net zero by 2050.

At the same time, the Government is determined to honour its commitment to bringing the number of new homes delivered up to an average of 300,000 per year by mid-2020s. Clearly, delivering energy-efficient new homes is the only way to ensure we tackle the housing crisis whilst preventing a surge in carbon emissions. And the sector is well aware that building the much-needed new homes should not jeopardise our efforts to halt disastrous levels of climate change; they should be seen as interdependent objectives.

¹¹ UKGBC, "Climate Change" - [Climate change - UKGBC - UK Green Building Council](#)

¹² Designing Buildings Wiki, "Carbon dioxide in construction", last edited 11 March 2021. [Carbon dioxide in construction - Designing Buildings Wiki](#)

In this regard, the International Energy Agency (IEA) estimated that building carbon emissions need to fall by 50% by 2030, which is 6% per year, to achieve 80% reduction by 2050.¹³ New buildings and new homes being built in the next 30 years must therefore be built at a low or net-zero carbon level.

In response to the consultation on Future Homes Standard, the G15 argued that the Government should aim for a national target of 100% reduction in carbon emissions from new build homes in order to meet net zero by 2050. We recommended adopting a fabric first approach with regards to new build homes and increasing the energy efficiency target within Building Regulations to 35% of CO2 reduction, as already required by G15 members.

Despite the current emphasis on building energy-efficient homes, construction of new homes is in itself a major source of carbon emissions. To decarbonise the sector, the Climate Change Committee have suggested various options to reduce emissions from the manufacturing and construction industry, such as resource efficiency, material substitution, energy efficiency, fuel-switching, and carbon capture and storage.¹⁴

Implementing the use of sustainable materials in construction can play a significant role in delivering environmentally sustainable new homes. Concrete is responsible for 4-8% of the world's carbon emissions, with 10 billion tons produced every year. At the moment, one of the largely explored alternatives to the use of cement – as well as mortar and brick production – is a greater reliance on modern methods of construction (MMC). Among the MMCs that are building momentum in the industry are modular construction, timber framing, hempcrete, and potentially the adoption of cross-laminated timber (CLT).¹⁵

However, as [reported](#) in the Parliamentary Consultation on MMC (June 2019), the lack of confidence in the durability of MMC buildings has so far been a major barrier to significant uptake in the UK. High profile issues with modular homes developed between 1980s and early 2000s have caused widespread reputational damage, and discouraged financial service providers – including valuers, insurers and mortgage lenders – from entering the sector.

In this sense, it is particularly necessary that the Government provides guidance on how MMC homebuilders might reach the required standards in relation to Safety and Quality. Collecting aggregate data and technical information on construction, materials and maintenance of different types of MMC would inform stakeholders and financial service providers of the likely performance of homes built using the same method in future.

¹³ Pippa Neill, "Construction industry accounts for 38% of CO2 emissions", Environmental Journal, 16th December 2020. [Construction industry accounts for 38% of CO2 emissions - Environment Journal](#)

¹⁴ The Climate Change Committee, "The Sixth Carbon Budget: Manufacturing and construction", pp.9-11. [Sector-summary-Manufacturing-and-construction.pdf \(theccc.org.uk\)](#)

¹⁵ Ibid, pp.18, 32.

Homes England have recently committed to increasing the use of MMC and are conducting a research pilot over 1,800 homes.¹⁶ This programme will hopefully give the sector the confidence to fully invest in MMC in the future. Furthermore, the Heat and Building Strategy, due to be released later this year, is set out to include actions to reduce emissions in buildings which can also be helpful in paving the way to net-zero carbon.

Network's approach to building sustainable new homes

Network Homes is an experienced and successful developer, with an ambition of a minimum of 1,000 new affordable homes started by March 2023. Building homes is environmentally one of the highest impact activities we undertake, so it's important we have a sustainable approach. The GLA and local authorities we work in already set high standards for sustainability in planning guidance, which we follow. But our new approach to sustainability will not stop at compliance; we will ensure a culture of consideration of the environment sits at the heart of our new build process.

In 2018 we completed our first carbon neutral scheme; the Printworks in Neasden. The block was precision-manufactured using cross-laminated timber, which reduced traffic movements to site by 74%, reduced the number of workers on site by 78%, and reduced the time spent on site by 40%. The trees used in production were sourced from sustainable forests. The importance of taking up modern methods of construction (MMC) such as this was made clear in the 2016 Farmer Review and is high on the Government's agenda (e.g. MMC is explicitly supported in the 2020 planning white paper). We will continue to seek opportunities to engage contractors who can use MMC to improve sustainability in construction.

The 2019/20 SHIFT report found that all of our new homes achieved SAP Band B (30% high Band B, 70% low Band B). 54% of new developments have received a range of ecological enhancements including complete sustainable urban drainage systems, tree planting, blue/green roofs and bat boxes. 70% of schemes received internal recycling bins and 87% received cycle storage. Overall, the sustainability of our new build homes was scored 5.7 out of 15.

There are several layers of sustainability to consider in construction; not only will we aim to have no adverse effect on the environment in the construction phase, but we will also aim to build products which have a neutral or positive effect on the environment over time. This means designing homes which are durable, using carbon neutral materials, and prepared for the adverse effects of climate change. This will protect the environment, and also make business sense for Network, reducing the costs of maintaining and/or refurbishing/redeveloping our buildings in future.

For new developments, we will require teams to ask themselves the following questions during the design phase, with a view to aiming for the highest standards available without rendering a project unviable:

¹⁶ Gov.UK, "Monitoring and measuring research study: impact of MMC on the delivery of homes", 5th March 2021. [Monitoring and measuring research study: impact of MMC on the delivery of homes - GOV.UK \(www.gov.uk\)](https://www.gov.uk/monitoring-and-measuring-research-study-impact-of-mmc-on-the-delivery-of-homes)

- The design and layout of the buildings:
 - Does building design ensure heat retention in winter, and prevent overheating in summer – without over-reliance on heating systems or air-conditioning?
 - Can mechanical installations such as ventilation systems be replaced with passive measures?
 - Are renewable energy systems sustainable and low maintenance?
 - Are buildings and surrounding ground adequately equipped to resist flooding?
- The materials used:
 - Do they have a high carbon footprint to produce?
 - Can they be recycled?
 - Are they durable?
- The carbon footprint of staff, machinery and material movement to site:
 - Can we use electric vehicles to travel to and from site?
 - Can we reduce time (and therefore travel) spent on site?
 - Do certain practices produce less waste?
- Features to encourage sustainable living:
 - Are residents equipped to recycle waste responsibly?
 - Are fittings (e.g. showers, toilets, heating controls, lights, smart meters) designed to reduce unnecessary water and energy consumption?
 - Are sustainable travel choices supported through providing bike sheds, promoting local transport routes, and exploring electric car charging points/car clubs options?
- Ecology on development sites:
 - Where green space is lost or disrupted, is this offset with new green spaces or other ecological installations?
 - Can high density biomass areas be planted in green spaces?

Consideration for sustainability will be a reflexive practice. It will change as new materials and methods of construction develop, and different levels of funding become available for more costly green installations. However, we will include specifications of our minimum design standards for new developments within Design Review Checklists. These will be updated by the Technical team within Development. We will also establish a Development Innovation Panel, who will meet to review best practice and learn from architects and industry experts, to ensure we are building with sustainability and best practice in mind.

We will improve the environmental sustainability of our development supply chain through our expectations and requirements of contractor partners, as established in framework tenders. We will also ask contractors to report on their approach to sustainability, to ensure efforts continue beyond the tendering stage.

We note that EPC A is only an intermediate target and does not represent a zero-carbon position. It is likely that energy performance beyond EPC A will be required and that our sustainability journey does not end with the achievement of EPC A ratings.

In addition, SHIFT recommend that Network:

- Aims to ensure new builds are EPC A rated and have low risks of flood and overheating, with 19% of development areas (or equivalent) set aside as high value green space.

- Establishes third party checks on sustainability features, using existing sustainability standards, carrying out Post-Occupancy Evaluation, or arranging for asset management to sign off on sustainability features.

Sustainable communities and social value

Sustainability should not be solely intended as an improvement in environmental performance, but also as our ability to create healthy places and communities. Considerations on creating healthy neighbourhoods will be incorporated into our approach to designing and delivering sustainable new homes. For example, in relation to creating secure private and public spaces within our development schemes, providing permeable links to social amenities, and providing high-quality pedestrian public realm.

Summary of proposals:

- Set an ethos of environmental sustainability from the outset of new land-led projects, guided by Design Review Checklists and a specialist Development Innovation Panel.
- Ensure that our new homes comply with sustainability targets prevalent at time of completion and are ready to be improved to meet future sustainability targets
- Convey expectations and requirements for sustainable working to our supply chain by requiring contractors to report on their approach to sustainability.
- Considerations on sustainable communities and place-making to be incorporated into our approach to design.

3.3. Our workplace

Network Homes' offices and facilities are a core component of the Sustainability Strategy. Moving from OOC to the Hive has allowed us to improve our workplace sustainability, but there is still room for improvement. The pandemic has made it necessary to pause our plans for redeveloping the Hertford offices, but if these plans can proceed, we would aim to bring in the same kinds of improvements in sustainability in Hertford. There are also ways we can improve sustainability in Hertford while development plans are paused, such as making it easier for people to cycle to work, and exploring the use of solar panels.

The Hive has strong sustainability ratings of BREEAM¹⁷ 'excellent' and EPC band B (whereas OOC had an EPC rating of band D). This has been achieved through several design features, such as a centralised and automated heating system, sensor-activated LED lighting, zip taps, and high energy performance appliances. There is also a more efficient use of space at the Hive due to the office size and layout – at OOC workspaces and meeting rooms were empty for 44% and 69% of the time respectively, according to analysis by AECOM. We will work with the building managers to monitor energy performance, water usage, waste, and carbon emissions, to make sure sustainability remains high and to identify opportunities for improvement.

¹⁷ Building Research Establishment Environmental Assessment Method.

In April 2019 to March 2020, Network's offices produced 59.3 tonnes of waste. All of this waste was either recycled or used for Refuse Derived Fuel, with 0% sent to landfill. The implementation of the Innovative Ways of Working (iWOW) programme and the use of portable devices has meant a vast reduction in paper waste, and bean-to-cup coffee machines have reduced the amount of disposable cups purchased by staff. At the Hive we continue to aim to send 0% of waste to landfill, and aim to increase the proportion of waste we recycle. This will require improved communications to staff about the importance of recycling and how to recycle correctly, which should improve our recycling culture.

We'll continue to ensure that IT materials, laptops, company-issued mobile phones and other items are recycled when they become obsolete or break beyond repair. We'll also continue to purchase products built to last, to ensure optimal use before we need purchase new equipment.

In terms of staff travel, SHIFT analysis of business travel expenses (car and train) for 2019/20 shows that Network staff travel for work resulted in 133.3 tonnes of CO2 emissions. In this context, we will encourage staff to avoid traveling unnecessarily. Working from home has been facilitated by iWOW and has of course been necessitated by the pandemic, but our long-term goal remains a blend of working from home and in the office.

We'll also encourage staff to commute sustainably, through a new Sustainable Travel Policy. We have made it easier for people to cycle to work, by providing better facilities for cyclists at the Hive and making the cycle to work scheme more generous, and we continue to encourage staff to use the season ticket loan scheme for public transport. We will disincentivise parking by gradually ceasing to subsidise staff parking in Webley and Hertford: from April 2021, we will subsidise 50% of staff parking costs; in April 2022 this will reduce to 25%; and in April 2023 we will entirely cease to subsidise staff parking costs.

We will also work with internal People Engagement Groups to understand areas where staff think we could be more sustainable.

Summary of proposals:

- We will collect and monitor data from building managers on key environmental measures including energy and water usage; waste recycling and recovery; and carbon emissions. We will aim to make significant reductions in energy usage by the end of 2023.
- We will explore options to increase recycling.
- We will continue to buy IT materials with a long lifespan and recycle materials once they are unusable.
- We will encourage staff to reduce reliance on cars as a mode of transport and promote greener ways of commuting such as cycling and public transport.
- We will work with People Engagement Groups to understand ways staff think we could be more sustainable.

3.4. Our procurement

Our current procurement exercises do take into account environmental considerations, but contracts are awarded on a combination of price and the quality of the proposals.

At the shortlisting stage (SQ), in relation to environment and sustainability, potential suppliers are assessed on general questions around the key environmental issues for such contracts and how these are addressed, the monitoring of their sub-contractors and any past breaches of environmental legislation. Contractor responses to questions tend to be statements of aims and policies, and qualitative rather than quantitative, so actual environmental performance may be obscured. Then, at tender stage, environmental sustainability tends to be underplayed because of the relative importance of other criteria (resourcing and management, service delivery, customer and client care, quality management and whole-life costs).

We need to strengthen our approach to sustainability in procurement exercises. Our supply chain is substantial and to fail to incorporate the environmental performance of our contractors could potentially undermine the reach of our efforts to improve sustainability. We will therefore start requiring more evidence of environmental performance as part of procurement exercises; for example, waste audits and reduction plans where appropriate, but more importantly will ensure that contract terms and conditions include the requirement to provide returns on key environmental metrics annually. Price will remain important – but we will consider sustainability alongside other criteria and will review the selection questionnaire and tender questions to enable greater consideration to be given to environmental performance. In addition, we will ask contract managers to collect performance metrics from their contractors on an annual basis.

Summary of proposals:

- We will collect and require more evidence, especially quantitative evidence, of environmental performance.
- We will review the selection questionnaire.
- We will require contract managers to collect environmental performance metrics from their contractors, and report on them on an annual basis.

3.5. Energy management

We need to review our approach to managing energy systems across Network's properties. We currently manage about ten mixed tenure schemes with communal heating systems installed, with more in the development pipeline. Over 1,500 homes have landlord gas and/or electricity supplies, and an increasing number of new build homes come with electric car charging points.

In this regard, we are in the process of adopting a new Energy Policy which will provide clear guidance on the set up and management of all energy related areas of business that affects Network Homes, including the management and monitoring of our partners.

We are also developing a three-year Energy Management Strategy that will inform a more proactive way of managing energy services across schemes. This will involve the effective management of an energy budget that accurately reflects all costs, and ensuring that Network Homes consistently generates enough income to cover its energy expenditure.

We are committed to implementing this strategy and managing the energy portfolio in an innovative and inclusive way which will enable the organisation to meet its vision of improving people's lives through quality homes and services. The strategy will be shaped around the following objectives:

- to work in partnership with other departments who may need to contribute towards the overall management of services provided within the various energy contracts, e.g. Finance, Development (Sales/New Homes) and Customer Services;
- to work in partnership with developers on the design, installation and commissioning of energy systems, influencing design briefs to ensure that the equipment installed can deliver sustainable and affordable energy; and
- to consider the establishment of a knowledgeable energy team that is capable of anticipating not only the customer needs but also those of Network Homes, and who can contribute towards managing the strategic aims of delivering effective services and financial robustness.

3.6. Benchmarking

To consolidate our commitment to sustainability, we will measure our holistic impact on the environment and use this to inform future strategic targets. We will commission SHIFT reports annually and update this strategy on the basis of these.

In 2020 we commissioned SHIFT to produce a baseline energy report measuring our overall approach to sustainability, and allowing us to benchmark our performance against other housing associations. SHIFT assess organisations against a set of approximately twenty metrics, relating to four areas:

- Leadership on sustainability
- Business sustainability, e.g. office footprint, business mileage, etc.;
- Existing homes;
- New builds.

Network achieved the SHIFT Bronze standard with a score of 34.62, which means we rank 35th out of the 40 most recent SHIFT assessments.

3.7. Financing of sustainability improvements

Our approach to affording sustainability improvements will include:

- Pursuing all available grants, subsidies and support available directly to landlords as well as sign-posting our residents to any financial support made available to individual households for sustainability improvements.
- Dedicating resources from our business plan where these are available in excess of resources required to meet our statutory obligations and strategic targets. Our current business plan allocation for sustainability improvements for 5 years from 2024-2025 is £60m.
- Investigating alternative financing options including assessing if residents' utility payments can be accessed in part to fund future investment, ensuring that at all times residents benefit from any financing proposals.

- Considering appropriate stock disposal options to:
 - fund sustainability improvements; and
 - dispose of units that are cost prohibitive to remediate to an acceptable standard

3.8. Resident engagement

In September 2020, findings from the Sustainable Homes Index for Tomorrow (SHIFT) reported that Network Homes is currently lagging behind other major housing associations in relation to engaging with residents around sustainability issues and environmental performance. The report acknowledged the crucial role that resident engagement can play in ‘informing residents about the ways they can make a difference and empowering them to save both energy and money.’

In line with SHIFT’s recommendations, Network has been working on making resident engagement a key pillar of our commitment to sustainability. As part of this effort, in March 2021 we ran a virtual resident engagement event with 20 attendees on the day – the highest level of attendance for a virtual event so far. The event was aimed at getting feedback on the latest [version](#) of our newly published Sustainability Strategy (February 2021), finding out the environmental areas where Network can improve as an organisation and within the communities we serve.

The main feedback from residents covered the following five areas:

- **Saving and conserving energy in residents’ homes:** residents expect Network to provide more information on impacts of fuel poverty and excessive costs of heating homes, insulation, and double glazing.
- **Taking personal ownership and responsibility:** resident engagement should be aimed at raising awareness among residents on the Sustainability Strategy and the actions that residents can take to be more energy-efficient, for example around waste management. Initiatives and actions should be promoted across all communication platforms to ensure the information is accessible for all.
- **Empower Sustainability Champions:** like Community Ambassadors, these could be a point of contact for their community and work alongside the Resident Engagement team. They could introduce sustainable initiatives such as vertical gardens and wildflower meadows.
- **Partnerships with Contractors:** residents expect Network to encourage a greater involvement of contractors in sustainability discussions; e.g. promoting awareness around carbon emissions associated with repairs and maintenance, as well as considerations on waste management and responsibly sourced materials.
- **Transport:** Network could explore the opportunity to adapt car parks to ensure electric charging stations are provided, and make improvements to cycle storage.

In line with the above recommendations from residents, the Resident Engagement and Marketing and Communication teams have recently put together a Resident Engagement and Communication Plan aimed at promoting our initiatives, campaigns, and resources around sustainability among Network Homes staff, residents, and external stakeholders.

Among the key communication points raised within Plan, the following are especially relevant in the context of increased transparency and awareness around sustainability:

- Creating a dedicated page and section on our website, with information about sustainability, including easily accessible tips and advice to residents.
- Creating a sustainability section within each edition of Network's Resident Newsletter, providing advice and information, as well as useful tips for residents to tackle different areas of environmental sustainability; this will also include examples of best practise across Network's properties.
- Producing a Sustainability Annual Report – to be shared on our website – tracking the progress Network has made against our targets for sustainability.

Finally, with regards to actively engaging our residents around sustainability, the Plan highlights the following points:

- Ensuring processes for bike storage and EVC are accessible and transparent for residents, including a dedicated page on our website.
- Recruitment of 7 Sustainability Ambassadors.
- Starting a project to utilise seeds, bulbs and plants supplied by contractors through Network Cares, getting Sustainability Champions involved on schemes.
- Organising a follow-up virtual event with residents to further discuss the updated Sustainability Strategy and receive further feedback.

4. Performance measurement

We will use key performance indicators and goalposts to monitor our approach to sustainability on the areas identified in this strategy. KPIs should cover the following areas:

- Our workplace:
 - Annual office energy and water usage;
 - Annual % of waste recycled/recovered/sent to landfill;
 - Annual office carbon emissions;
 - Improvement of Best Companies survey responses regarding our approach to sustainability.
- Our construction:
 - Annual % of waste recycled/recovered/sent to landfill;
 - % of homes using precision-manufactured elements over course of strategy;
 - Use of sustainable sourced building materials;
 - Annual carbon emissions from transportation.
- Our homes:
 - % of tenanted properties SAP rated below band D over course of strategy;
 - Annual carbon emissions from homes;
 - Creation of green spaces and biodiversity over course of strategy.
- Our procurement:
 - Annual % of waste recycled/recovered/sent to landfill.