Southern Housing

SHIFT Environmental Report

2025

SHIFT

Contents

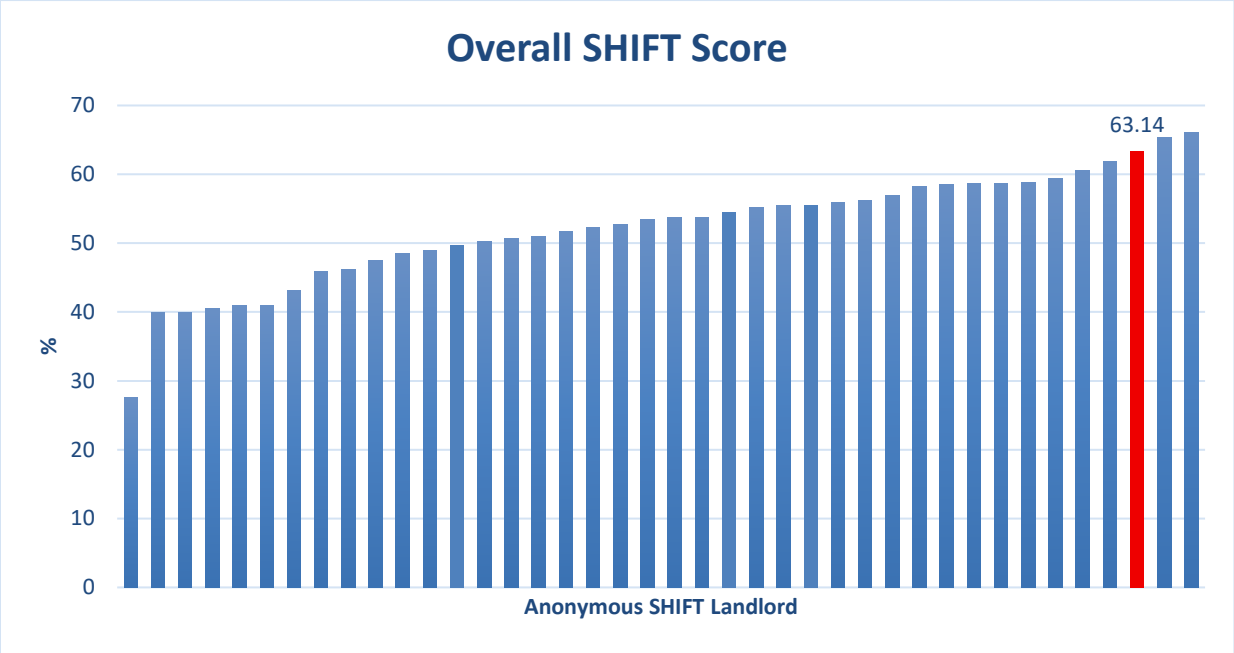
Executive summary

Environmental reporting remains supremely important in a world of environmental damage, climate change, and high fuel prices. These issues affect everyone including residents and staff. This report focuses on quantitative metrics. As the adage goes, you can only manage what you measure. Furthermore, stakeholders such as investors and regulators are becoming keener than ever to see these metrics.

The report outlines Southern Housing's most recent environmental performance. It is based on primary data supplied by your organisation, which has been processed using nationally recognised methodologies where applicable. In cases where such methodologies are unavailable, we have applied SHIFT's own approaches, developed through our specialism in the social housing sector and the best available scientific knowledge. The audit trail for this assessment can be accessed on the SHIFT online customer portal.

Southern Housing provide and manage over 60,00 affordable homes (for which they have decent responsibility) across London, the Midlands, the Southeast, the South Coast, and the Isle of Wight. The results of this assessment will show, as best as the data allows, the gaps between Southern Housing Housing's current environmental performance and environmentally safe levels of impact. Southern Housing are keen to understand the impacts of their current performance and to display their commitment to improving their sustainability and environmental performance. The findings of this assessment will be used to monitor Southern Housing Housing's environmental performance progress and support the identification of targeted areas for improvement.

Each environmental issue for each part of the organisation has been assessed and the results, including CO_2 emissions, are detailed in the report and the Summary Statistics section. For the purposes of this executive summary there is a scoring system which combines overall performance into a single SHIFT score. The score is based on historic weightings derived by social landlords. As a caveat, the scoring is purely a convenience and should not be taken as anything other than that. The priority of the SHIFT assessment it to provide environmental metrics, backed by a defendable audit trail. The chart below shows Southern Housing's score and comparison against peers in UK social housing.



Southern Housing has achieved the SHIFT Gold accreditation, with a score of 63.14%. It ranks 3rd out of the 40 most recent SHIFT assessments. We strongly encourage you to take the steps outlined in this report to ensure effective management of resources, leading to a sustainable stock and operations. Beyond the environmental necessity, there is significant evidence demonstrating the financial advantages of these actions[1]. As well as driving action, clients use the data in their SHIFT report for:

- Effective environmental strategy development
- ESG reporting
- Annual progress monitoring on environmental targets
- Compliance reporting – SECR reporting

SHIFT also has the bronze, silver, gold and platinum accreditation element. Clients find this useful for having a single corporate aim for all directorates and for easy communication with stakeholders. However, clients are reminded that this is not the point of SHIFT. The purpose of SHIFT is to provide you with highly useful data to effectively manage your way to a sustainable stock and sustainable operations.

[1] https://shiftenvironment.co.uk/news/financial-benefits-of-sustainability/

Summary statistics

Carbon

Environmental issue	Absolute[1]	Intensity[2]	Intensity target for SHIFT platinum 2025[3]	Long term intensity target (by 2050)
SAP – all homes	SAP 72.32	75.02% of all homes SAP 69 or higher	SAP 74.94 ✓	SAP 85
Individually heated homes, regulated emissions Scope 3	111,131.80 tonnes CO_2e	2,113.58 kg CO_2e / independently heated home		
Communal heat systems Scope 1 Scope 2 Scope 3	8,348.79 tonnes CO_2e 5.16 tonnes CO_2e 11,436.03 tonnes CO_2e	12,791.92 kWh / home managed	5,177.58 kWh / home managed ×	3,600 kWh / home managed
Other landlord supply Scope 1 Scope 2 Scope 3	3,644.38 tonnes CO_2e 5,603.70 tonnes CO_2e 469.03 tonnes CO_2e	154.35 kg CO_2e / home managed	100.86 kg CO_2e / home managed ✓	0 kg CO_2e / home managed
Offices Scope 1 Scope 2 Scope 3	112.15 tonnes CO_2e 282.85 tonnes CO_2e 25.00 tonnes CO_2e	33.77 kg CO_2e /m^2	48.19 kg CO_2e /m^2 ✓	0 kg CO_2e / m2
Business mileage Public transport (Scope 3) Employee-owned (Scope 3)	60.39 tonnes CO_2e 440.93 tonnes CO_2e	8.21 kg CO_2e / per home managed	8.49 kg CO_2e / per home managed ✓	0 kg CO_2e / home managed
Maintenance activities DLO (Scope 1) DLO (Scope 2) DLO (Scope 3) External (Scope 3)	1,332.71 tonnes CO_2e 1.51 tonnes CO_2e 0.13 tonnes CO_2e 1,609.60 tonnes CO_2e	61.88 kg CO_2e / per home managed (scaled to represent 100% of repairs and maintenance spend)		0 kg CO_2e / home managed
Embodied carbon Maintenance (Scope 3) New Build (Scope 3)	2,401.60 tonnes CO_2e 27,523.27 tonnes CO_2e	39.35 $kgCO_2e$/home managed 35,196 $kgCO_2e$/new home		0 kg CO_2e / per home managed 0 kg CO_2e / per new home

Other environmental performance

Environmental issue	Absolute[1]	Intensity[2]	Intensity target for SHIFT platinum 2025[3]	Long term intensity target (by 2050)
Water – homes	7.38 million m^3	143.98 lpd	136.55 lpd ×	110 lpd
Water – offices	13,142 m^3	15.12 m^3/employee/yr	6.02 m^3/employee/yr ×	3 m^3/employee/yr by 2030
Waste – homes	23.10% homes with internal recycling bins	5.35% increase in residents diverting waste from landfill	7.59% increase in residents diverting waste from landfill ×	17.6% increase in residents diverting waste from landfill
Waste – offices	38.03 tonnes	99.73% of waste diverted from landfill	75.03% waste diverted from landfill ✓	100% diverted from landfill
Flytipping – number of incidents	2,667 incidents	43.70 incidents/1000 homes managed		
Promotion of sustainable transport facilities – homes	13.30% homes with cycle storage	3.82% increased likelihood of resident use		100% increased likelihood of resident use
Responsible materials – maintenance & capital works	67.49%	67.49%	59.62% responsibly sourced ✓	100% responsibly sourced
Responsible materials - offices	56.03%	56.03%	63.71% responsibly sourced ×	100% responsibly sourced
Resilience to climate change – flooding	90.84% low risk 4.26% medium risk 4.90% high risk	90.84% of homes resilient to flood risk	85.63% adapted to flood risk ✓	100% adapted to flood risk
Resilience to climate change – overheating	57.30% low risk 32.80% medium risk 9.90% high risk	57.30% of homes resilient to overheating risk	81.03% adapted to overheating risk ×	100% adapted to overheating risk
Biodiversity value	15,708.84 tonnes biomass above ground	12.47 tonnes biomass per hectare	10.59 tonnes biomass per hectare ✓	11.9 tonnes biomass per hectare by 2043

1 – In line with best practice environmental reporting, the absolute environmental impact is given here – this gives an overall assessment of impact.
2 – In line with best practice environmental reporting, the intensity is given. Intensity is the environmental impact per meaningful unit. E.g. per home managed or per m^2 of office space. Intensity allows organisations to monitor progress towards long term aims, even if they change in size e.g. gain more homes or office space. Intensity is used for SHIFT scoring and benchmarking.
3 – When '✓' is displayed, you are achieving or exceeding the platinum intensity target for the year stated. When '×' is displayed, the platinum intensity target has not been met.

Priority actions

Throughout this report, actions are listed under the relevant part of your organisation and environmental issue. To help identify the most important actions we have graded each action against a set of criteria. The more criteria that are met, the higher the priority for the action. Suggested criteria are:

- Cost
- Staff resources
- Importance – based on likelihood of being regulated
- Peer comparison – if lower in the benchmark then this would indicate that this is more urgent

The actions are described in ways that departments can implement. The efficacy of the actions will be calculated in next year's SHIFT report (for example, carbon emissions will decrease). Implementing an action does not necessarily equal more SHIFT points directly. However, landlords that take time to improve data quality and monitor their environmental performance tend to perform better in terms of their SHIFT scores. We suggest that monitoring of actions is carried out in normal business processes (e.g. appraisals, quarterly reports).

To help you focus on priority actions, your SHIFT assessor can extract the following information, based on this report:

- The actions described in this report
- Where data allows, a ranked breakdown of the energy efficiency of your communal heating systems
- An indication of which part of your organisation is contributing most to sustainability

If you require this in any other format or wish to amend any suggested actions, please let your assessor know as we can offer additional consultation support on any aspect of this report as required.

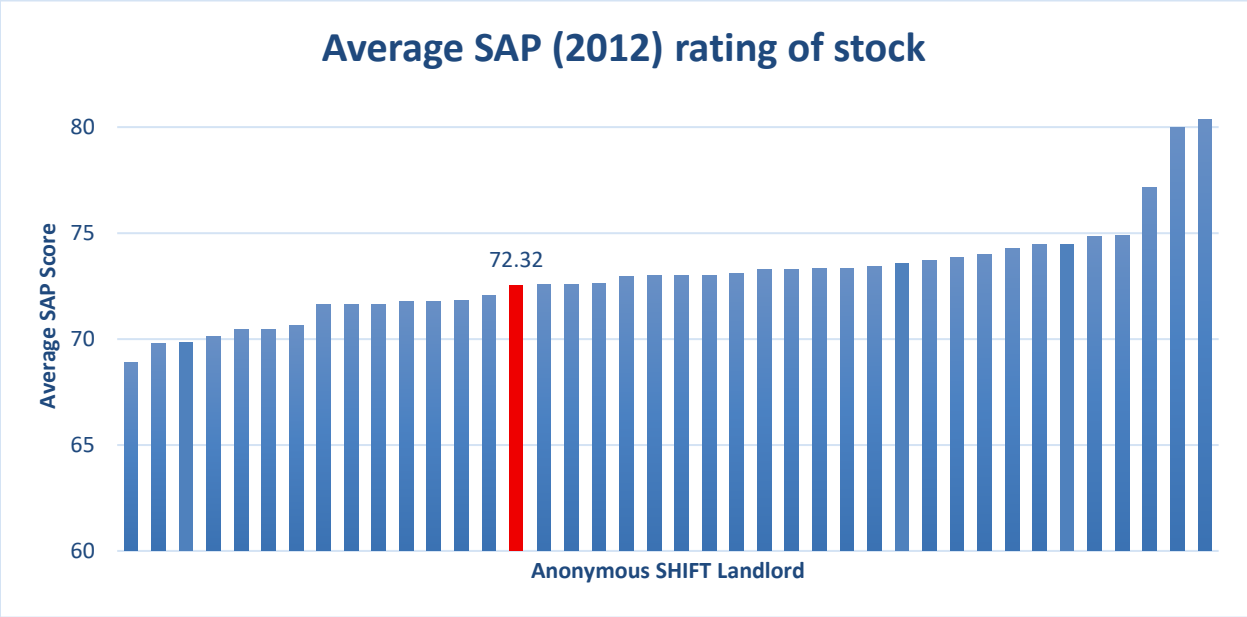
Existing Homes

Most of the homes that exist now will be in use in 2050 and it is essential to ensure that existing homes are truly sustainable. Key issues remain energy efficiency, adaptation to climate change and biodiversity and green spaces. Your performance in each of these areas, and others, is presented below.

Energy and average SAP

SAP is the UK's standard measure for energy efficiency of homes. Higher SAP scores indicate lower running costs for homes and correlate with lower CO_2 emissions. Despite well-known inaccuracies in the SAP methodology, it is a good proxy for CO_2 emissions and SAP remains the Government's favoured method for assessing energy efficiency. The net zero plan for UK homes is a combination of achieving EPC C or above for all properties, shifting to non-fossil fuel heating (with corresponding changes to SAP methodology) and expected energy efficiency standards for new builds up to 2050. SHIFT research indicates this results in an average SAP of 85.

Energy performance data was collated by Southern Housing's Sustainability Performance and Reporting Analyst from their asset management database, which indicated an average SAP of 72.32 has been achieved across their housing stock.

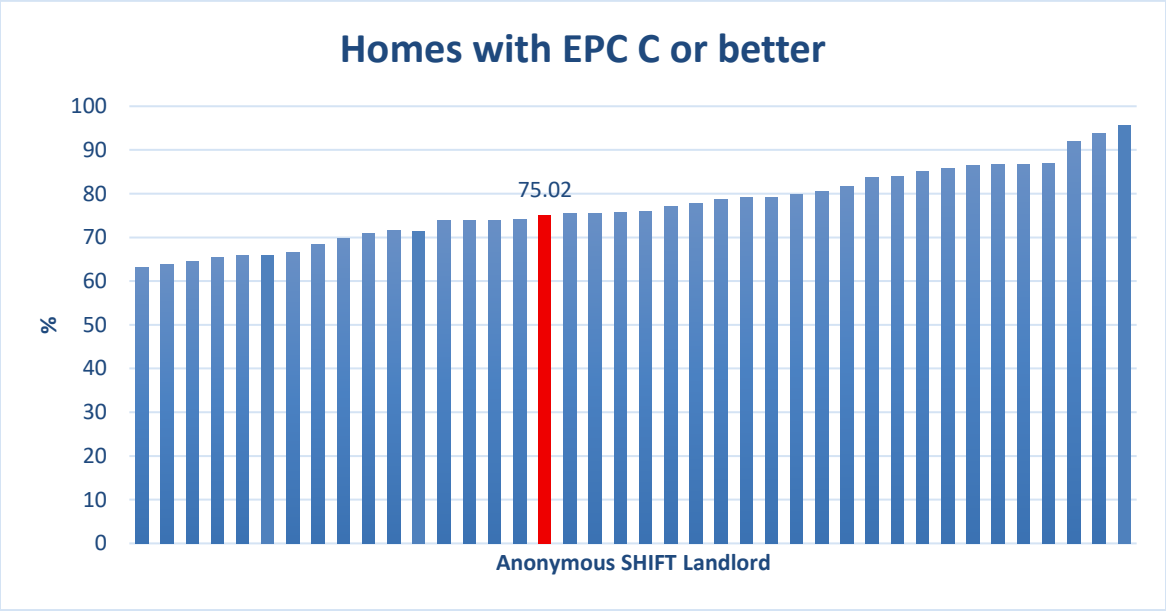


Peer Comparison: *Comparable*

Fuel poverty

Tackling fuel poverty aligns with the UK's net zero pathway. As well as significantly improving environmental performance, achieving EPC C / SAP 69 will dramatically improve the lives of residents in both health and financial terms.

Consulting Southern Housing's asset management database, 45,788 properties are believed to be EPC C or above, this equates to 75.02% of Southern Housing's stock. Including leaseholders and shared ownership properties may bring this figure up but as Southern Housing are not responsible for major works for these properties, they have been excluded from the SHIFT assessment.



Peer Comparison: *Comparable*

Recommended Improvements:

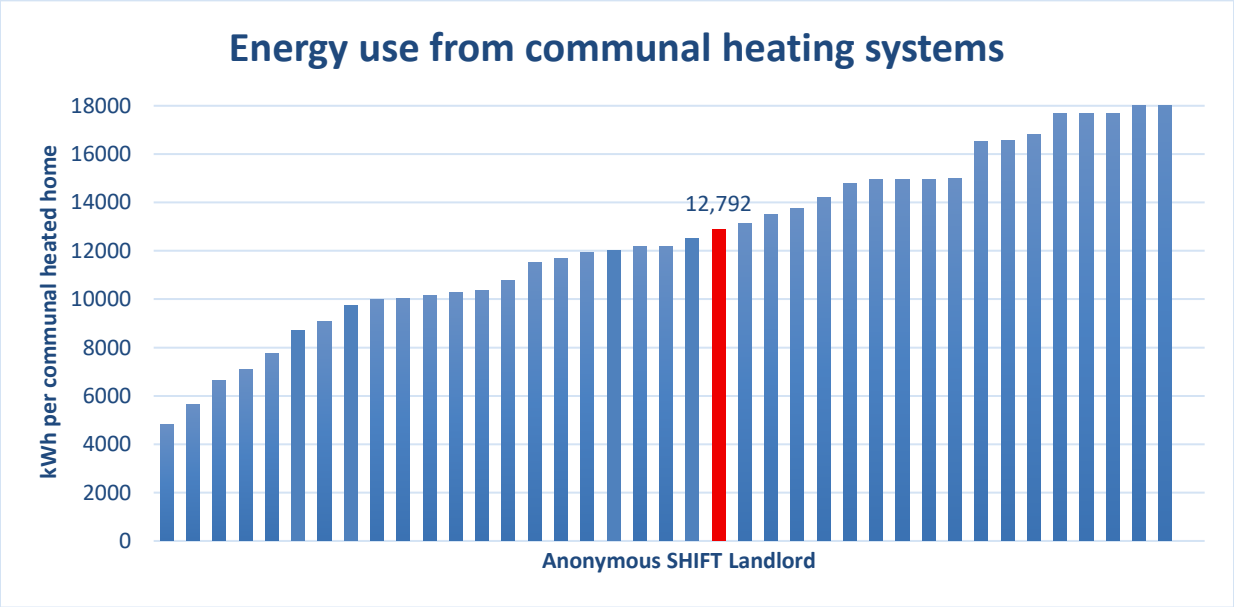
Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Develop long term, detailed, address-level plans that align with the UK's net zero pathway for homes, namely	Low	Low	Low

EPC C by 2030 then gradually upgrade to non-fossil fuel heating systems up until 2050. 3rd party software is available to allow you to do this. See Completing an EPC analysis of your housing stock for more information.			
Devise and implement a first year plan: 1. Divide the number of homes lower than EPC C by 5 to get the annual number of homes that need to be upgraded by 2030 2. Select ~80% of the annual number from the worst performing homes in the stock and carry out the interventions necessary to get them to EPC C as identified in the long term plan. Ensure completion by end of the year.	Medium	Medium	High
Upgrade ~10% of the annual upgrade number when triggered by component replacements and/or voids. The aim is to get teams used to doing opportunistic upgrades at the same time as other works. The most obvious example is to install solar PV at the same time as a roof replacement.	Low	Medium	High
Upgrade ~10% of the annual upgrade number with a heat pump, EWI and/or solar PV where appropriate as identified in the long term plan. The idea here is to start spreading examples of the technologies throughout the stock so that residents get used to it and share positive experiences with other tenants. This is essential to gain access to other homes in future upgrade programmes.	Low	Medium	High
Repeat the actions for the first year plan each year until 2030 and monitor performance by tracking the % of homes that are EPC C or better. This should be 100% by 2030.	High	High	High
Monitor policy changes for beyond 2030 in readiness for upgrading heating systems to non-fossil fuel versions that do not add extra cost for residents.	Low	Low	High

District and communal heating

Energy for communal and district systems is a huge cost to landlords and is highly visible. The heating systems are known to be very inefficient and are not adequately reflected in the SAP rating. They are also regulated under the Heat Metering regulations which may require retrofitting heat meters at some point in the near future. SHIFT research indicates that an efficient communal heating system, comparable with a SAP 85 property, would require only 3,600 kWh of heating and hot water energy per home.

Southern Housing identified 8,452 communally heated properties. These should be clearly documented under the requirements of the Heat Networks (Metering and Billing) Regulations 2020. These consist of homes served by heat networks either managed by Southern Housing (scope 1 or 2), or externally managed (scope 3), whose emissions have been calculated using SHIFT default 17,700 kWh per home. The relevant 2024 Defra conversion factors have been applied to the total 108,117,279 kWh of energy were used in Southern Housing's communally heated homes. This equates to 12,792 kWh per home. The table below shows the average kWh values per communally heated home from other SHIFT landlords.



Peer Comparison: *Comparable*

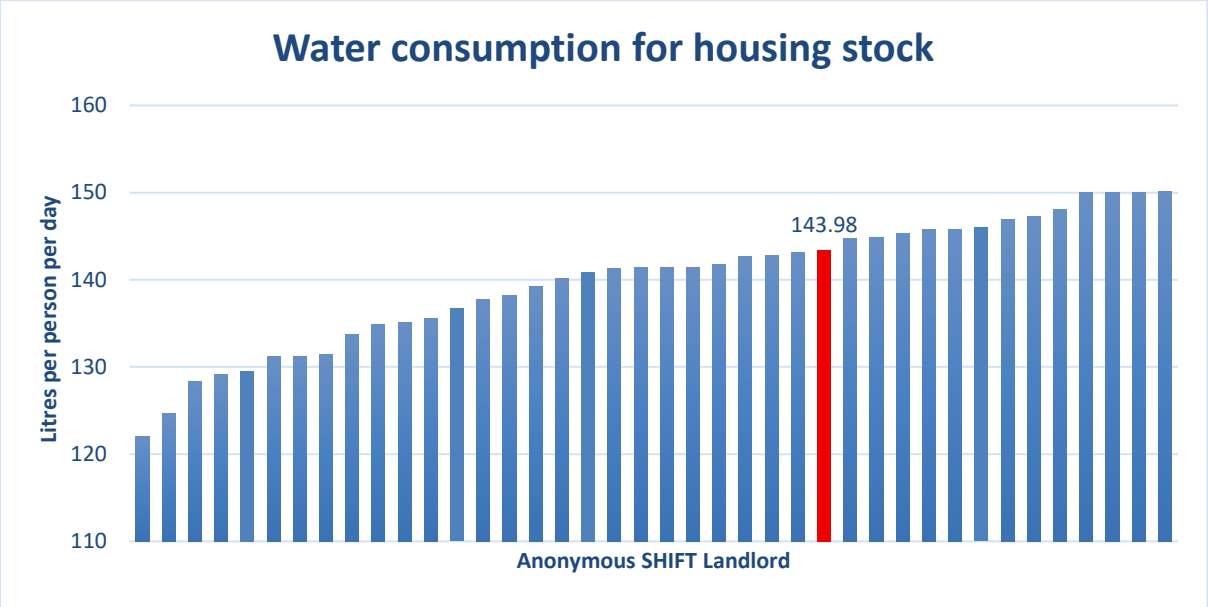
Recommended Improvements:

Action	Cost High/Medium/Low	Staff resources High/Medium/Low	Likelihood of regulation High/Medium/Low
Identify worst performing blocks by calculating kWh/unit and benchmarking against other blocks or against SAP estimates of what the kWh/unit should be.	Low	Low	Medium
Install individual meters in properties where viable	Medium	Medium	High
Devise and implement upgrades to the worst performing block. Aim for EPC C or better homes with non-fossil fuel heating.	Medium	Medium	High
Improve databases to show a clear link between communally heated homes and the addresses on energy broker data. E.g. have the block UPRN appear on broker lists of energy usage. This allows more accurate reporting and monitoring of energy and CO_2 emissions.	Low	Low	Medium
Devise a plan to upgrade all communal heating systems such that they do not us non-fossil fuel heating by 2040.	Low	Low	Medium
Request energy usage data from communal heating managing agents. This will enable Southern Housing to identify poorly performing blocks and improve energy use reporting.	Low	Low	Low

Water

At the time of writing there are emerging targets for water efficiency. In England the target is 110 litres per person per day by 2050.

As with most landlords no complete assessment has been made of water efficiency in Southern Housing's stock. Therefore, the SHIFT water efficiency estimator tool has been used. This uses build age data to identify the likely water efficiency measures in place. For Southern Housing, this estimated 143.98 litres per person per day (lpd).



Peer Comparison: *Comparable*

Recommended Improvements:

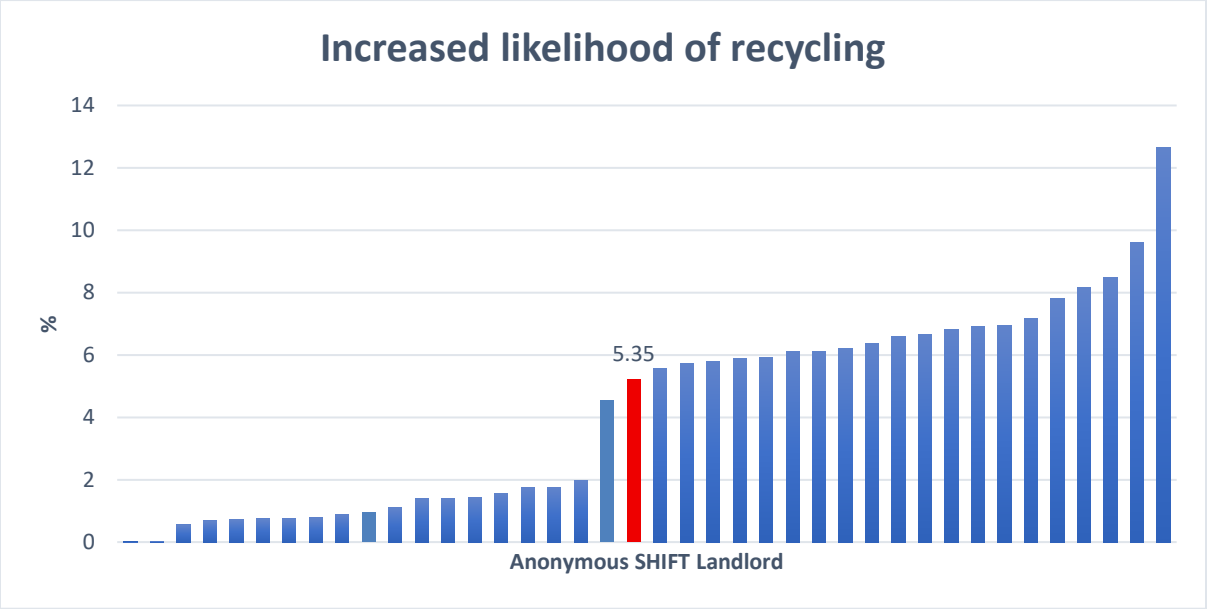
Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Create a database which shows the water efficient fittings for each home. SHIFT can give you first pass assumptions to help populate the database. As well as showing data for existing homes, the database can be populated with information from new build.	Low	Low	Low
Update all retrofit specifications for water fittings. Suggested values are: • WC 4/2.6 litres dual flush • Shower 8 l/min • Bath 170 litres • Basin taps 5 l/min • Sink taps 6 l/min • Water meter	Low	Low	Medium
For 100% of bathroom and kitchen upgrades install water fittings to the new specification and record upgrades on the water efficiency database.	Medium	Medium	Medium
For at least ~5% of voids with a shower flow rate of 8 litres/min, retrofit an aerating shower head/fitting and record upgrade on the database.	Low	Low	Medium
For at least ~5% of voids with a non-dual flush toilet, retrofit a water displacement device to reduce flush volume.	Low	Low	Medium
Contact your local water supplier and explore ways to get meters retrofitted in voids.	Low	Low	Medium

Put water saving tips for residents on Green Pages	Low	Low	Low
Active engagement: encourage residents to use water efficient appliances, and liaise with installers to ensure advice on how to maximise efficiency of installations is provided (and recorded) as standard for all work completed	Low	Medium	Low
Devise a plan to ensure that all homes have water efficient fittings by 2050.	Low	Low	Low
Implement the water efficiency plan.	Medium	Medium	Medium

Domestic recycling

This SHIFT metric reflects the measures that landlords can take to encourage additional recycling by residents, above and beyond what local authorities are doing to boost recycling rates.

SHIFT estimate that 23.10% of Southern Housing 's homes have internal recycle bins fitted using build date assumptions. Southern Housing held a summer event to promote biodiversity and waste reduction and held a "skip day" during the reporting period. It has been assumed that all residents are passively engaged in domestic or bulky waste disposal during the reporting period via Southern Housing's website. Based on the assumed internal recycling bins installed and resident engagement, a 5.35% increase in the likelihood of residents diverting waste from landfill is estimated.



Peer Comparison: *Comparable*

Recommended improvements:

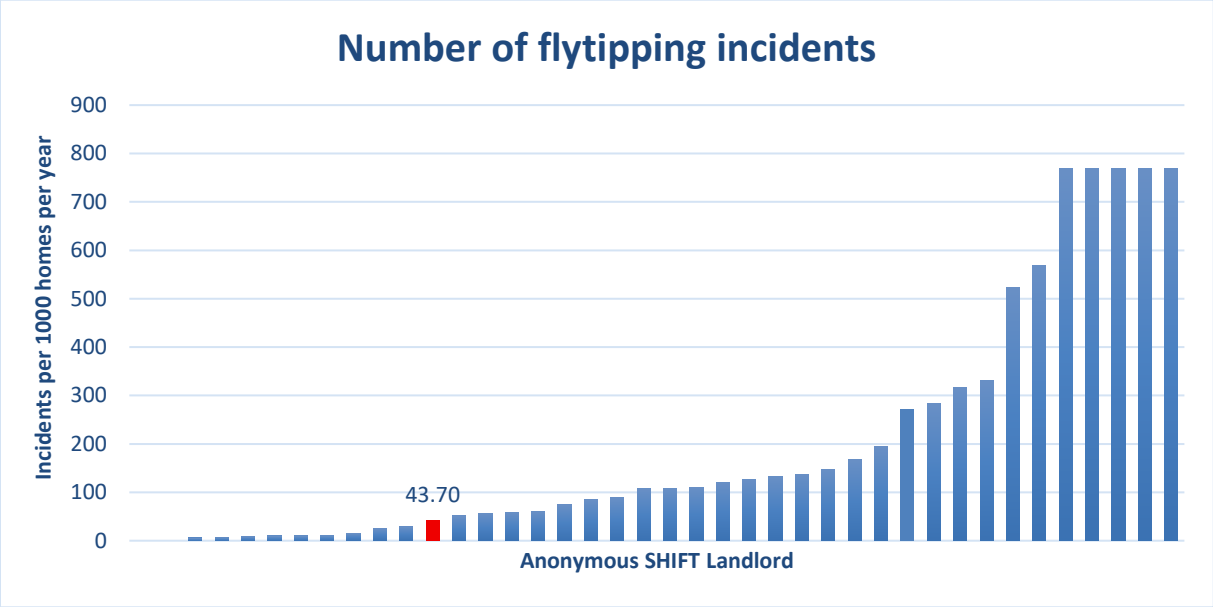
Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Include internal recycling bins in your asset database. SHIFT can give you first pass assumptions to help populate the database. As well as showing data for existing homes, the database can be populated with information from new build.	Low	Low	Low
Update kitchen retrofit specifications to include internal waste recycling bins and ensure new build specifications include recycling bins as standard	Low	Low	Low

For 100% of kitchen upgrades install internal waste bins to the new specification and record upgrades on the internal waste bin database.	Low	Medium	Medium
Put waste reduction and recycling tips for residents on Green Pages. This should include details on bulky waste.	Low	Low	Low
Develop an active engagement programme on waste management and ensure all interactions are recorded for environmental reporting	Low	Medium	Low

Fly tipping

Fly tipping is unsightly, presents a potential fire hazard and is costly for landlords to deal with.

2,667 fly tipping incidents were recorded by Southern Housing over the reporting period, equating to 43.70 per 1000 homes.



Peer Comparison: *Good*

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Put instructions on how residents can deal with bulky waste appropriately on Green Pages.	Low	Low	Low
Devise a strategy to reduce fly-tipping to zero incidents per 1,000 homes by 2050, including interim monitoring targets and milestones.	Low	Low	Low
Implement the strategy to reduce fly-tipping and monitor impact.	Medium	Medium	Low

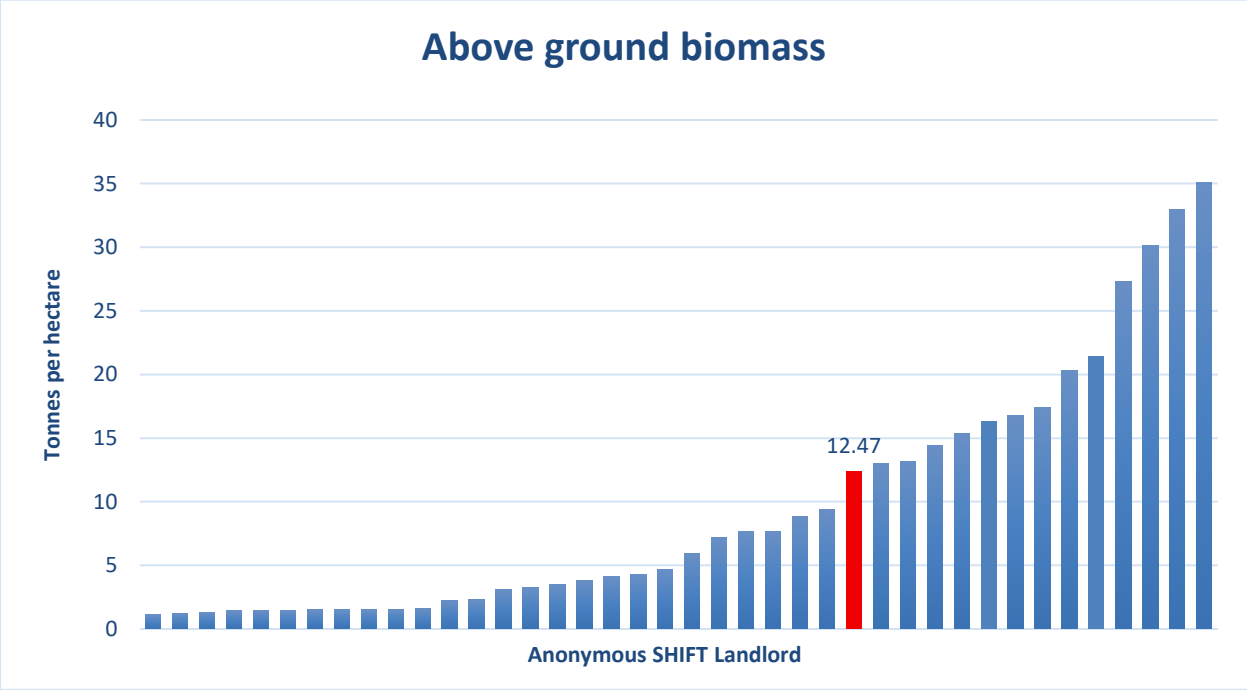
Biodiversity and green spaces

Green spaces and biodiversity can deliver major benefits to our health and wellbeing. These include air quality improvement, flood attenuation, cooling during heatwaves, recreational value and carbon sequestration. As such biodiversity is rising up national, international and ESG agendas. Biodiversity Net Gain (BNG) is beginning to impact new build developments and the methodology provides a good way to measure biodiversity in general. We are reviewing the methodology and data and intend to introduce it in future SHIFT assessments. What is very clear from all methodologies, targets, and initiatives is that the amount of land owned by landlords will need to be known.

For the time being, SHIFT research indicates that there should be 11.9 tonnes of above ground biomass per hectare of landlord land by 2043. This metric aligns with ESG reporting and provides an estimate of above ground biomass per hectare from land coverage data on all land holdings, including gardens as well as communally maintained land. It provides an indication of the level of biodiversity.

A GIS data extract provided by Southern Housing's Sustainability Reporting Manager provided detail of land owned, land use and vegetation type. GIS vegetation type data was then summed

into the relevant SHIFT categories. An up-to-date tree survey was also provided. This data was entered into the SHIFT biodiversity tool, which estimated 12.47 tonnes of above ground biomass per hectare of land owned, which equates to 15,708.84 tonnes of biomass across Southern Housing's stock.



Peer Comparison: *Comparable*

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Create a database which shows the m^2 total land area for each property (including vegetation types for private gardens). Include other land owned beyond buildings and tree locations and canopy sizes. SHIFT can provide a first pass assumption. As well as showing data for existing homes, the database can be populated with information from new build.	Low	Low	Low
Devise a plan to achieve 11.9 tonnes above ground biomass per hectare by 2043, with the caveat that this may be superseded if new guidance emerges. Include milestones and interim monitoring targets. Innovative ways to increase biodiversity should be included (e.g. green roofs/walls, street trees).	Low	Low	Medium
Convert mown grassland to wildflower areas – this enhances biodiversity and reduces maintenance costs.	Low	Low	Low
Implement biodiversity and green spaces strategy and monitor progress against milestones and biomass/ha interim targets.	Medium	Medium	Medium

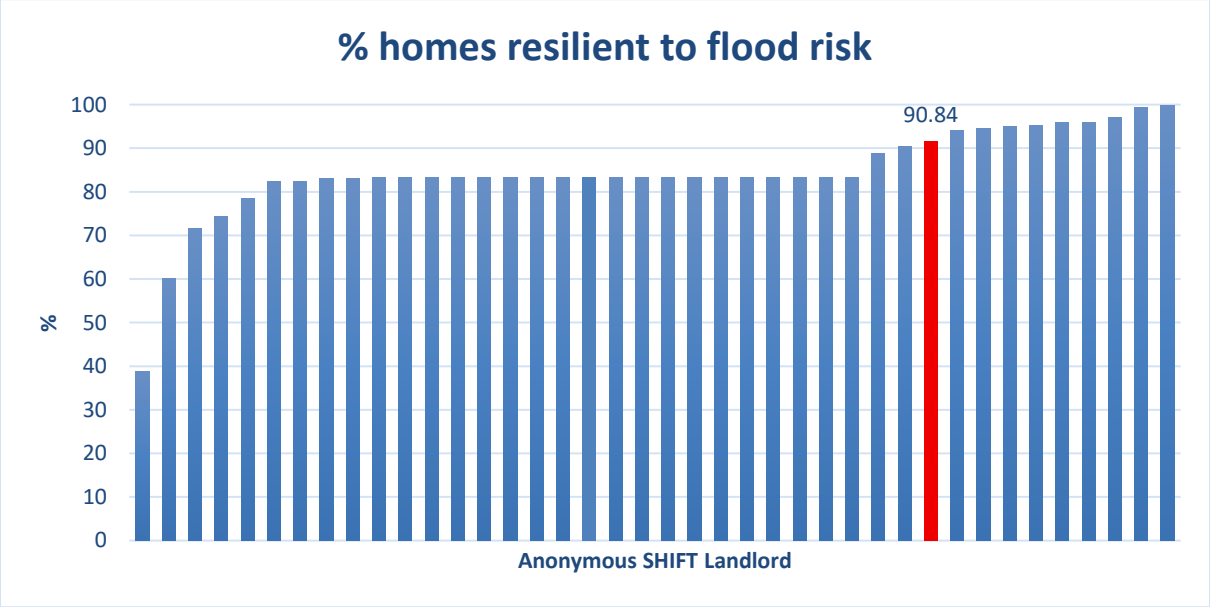
Homes resilient to flooding

Met Office projections indicate more flood events. The Environment Agency states that over 3 million properties in England are at risk of surface water flooding, even more than those at risk from rivers and the sea (2.7 million). The ideal is to have 100% of homes at low risk or adapted to flooding. For SHIFT purposes, we define adapted as homes that are in locations at low risk of flooding or homes that have responsive actions in place to quickly react to a flood event or

flood warning. Homes may still flood, but they can be quickly occupied again after a flood event.

Environment Agency research on flood risk in England indicates that 1 in 6 properties are at risk of flooding. It is considered best practice to assess individual property level flood risk which includes the risk of fluvial and surface water flooding and groundwater if a known risk. Surface water flooding is especially important to assess in urban areas as it is projected to be the most likely form of flooding in future years.

Southern Housing provided the results from their flood risk assessment in the asset data template. This included both fluvial and surface water flood risk and indicated that 90.84% of homes are at low risk of flooding.



Peer Comparison: *Good*

Recommended improvements:

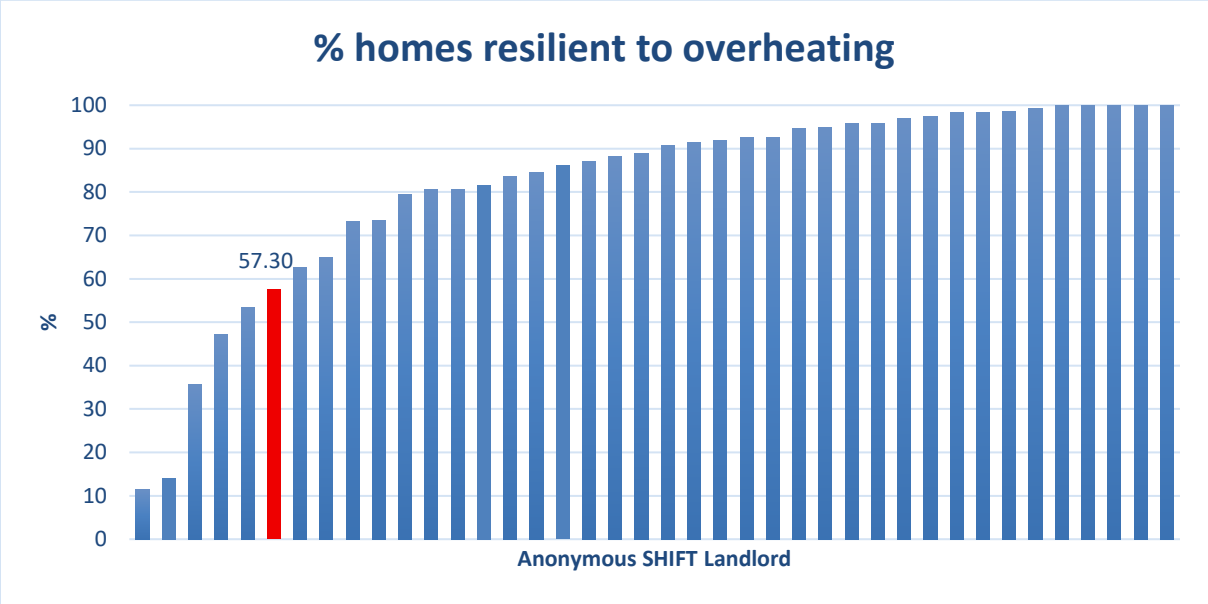
Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Assess flood risk and include this in your asset database. This should include fluvial and surface flood risk, be address specific and assessed within the most recent 3 years. As well as showing data for existing homes, the database can be populated with information from new build.	Low	Low	High
Devise a flood resilience strategy including interim monitoring metrics, with the end goal to have 100% of homes resilient to flood by 2050.	Low	Low	High
Implement flood resilience strategy and monitor against interim targets.	Medium	Medium	High

Homes resilient to overheating

Met Office data (and recent experience) indicate that heat waves will become more prevalent in coming years. Landlords will need to adapt and manage their stock such that residents are protected from adverse effects. For SHIFT purposes, we define adapted as homes that are either at low risk of overheating or homes that have responsive actions in place to quickly react to overheating events or overheating warnings. Homes may still overheat, but they can quickly be occupied again after a heat wave event.

The SHIFT overheating risk assessment uses information on housing stock property types, postcodes, communal heating and build dates along with SHIFT sourced data on risk factors such as the urban heat island effect and population density to estimate overheating risk in Southern

Housing's housing stock. Using SHIFT methodology, it is estimated that 57.30% of Southern Housing's homes are at low risk of overheating.



Peer Comparison: *Below average*

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Create an overheating resilience database to UPRN level. As well as showing data for existing homes, the database can be populated with information from new build.	Low	Low	High
Devise an overheating resilience strategy including interim monitoring metrics, with the end goal to have 100% of homes resilient to overheating by 2050.	Low	Low	High

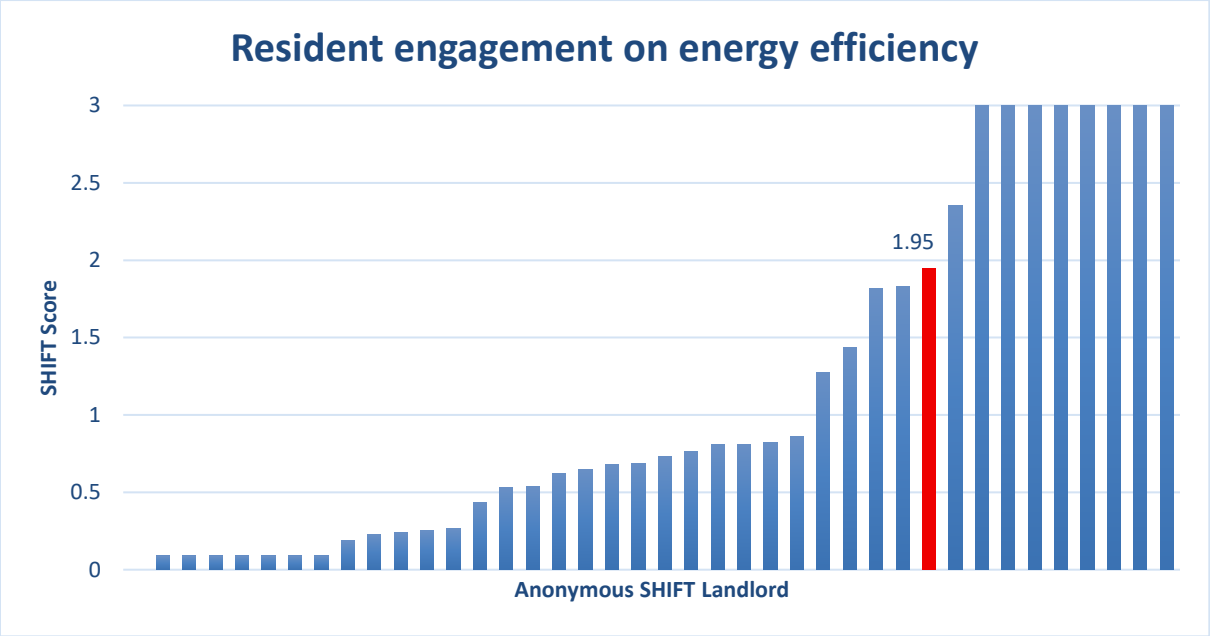
Implement the overheating resilience strategy and monitor against interim targets.	Medium	Medium	High

Resident engagement

Energy Efficiency

Resident engagement is an important way of encouraging residents to lead more sustainable lives and to save both energy and money. There is an emerging nuance with resident engagement as it is recognised that there will be huge disruption as each home is transformed to net zero. Explaining and demonstrating the benefits of net zero will also be vitally important.

100% of residents have access to energy efficiency advice through the dedicated “Energy saving Advice” section of Southern Housing’s website. This includes articles covering energy efficiency and help to pay bills. While it is important for residents have access to this information, it is difficult to monitor the effectiveness/interaction of this engagement. Amongst many other measures, Southern Housing have completed 1,337 retrofit assessments, 1,097 EPC assessments, and upgraded windows and doors on 1,446 homes which all involved resident engagement. The measures carried out by Southern Housing resulted 21.76% of Southern Housing’s resident’s being actively engaged and a SHIFT score of 1.95 out of 3 for performance on resident engagement on energy efficiency. This is benchmarked against other SHIFT landlords below.



Peer Comparison*: Good*

Recommended improvements:

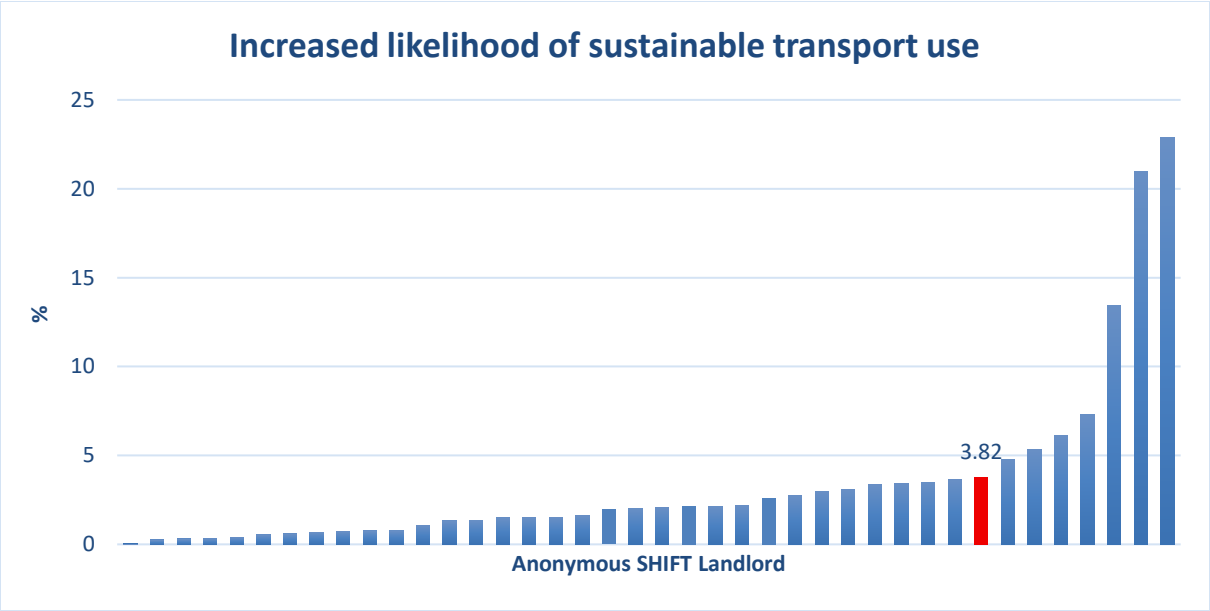
Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Create a green pages website which residents can refer to for tips on greener living. These should include energy efficiency, water efficiency, reducing waste, coping with flood risk and heat waves, sustainable transport.	Low	Low	Low
Promote the green pages to 100% of residents each year.	Low	Low	Low

Design an active engagement programme that ensures that residents have an opportunity to learn first hand, from sufficiently knowledgeable people, how to lead a more sustainable life. Ensure the programme has milestones and meaningful targets and contact with residents is recorded.	Low	Low	Low
Implement the active engagement programme.	Medium	Medium	Low
Include engagement in your contracts with installers. As homes are retrofitted it will be important that residents are shown how to use kit correctly/efficiently. Requiring contractors to provide this advice helps residents, and contributes to the installers' social value obligations.	Low	Low	Low

Sustainable transport

Transport facilities and initiatives for residents can help to encourage sustainable travel choices which reduce carbon emissions and improve local air quality. This metric is based on the provision of cycle storage facilities as well as transport advice, from travel maps and timetables to cycling and eco-driving training. The national plan for transport is to encourage everyone to switch to walking and cycling, coupled with moving to electric vehicles. It is recognised that poor air quality is an issue to residents across the UK and that inequalities exist; air pollution can disproportionately impact less affluent areas. Attempts to improve local air quality will be essential and promoting active transport and low emission travel is a priority.

For sustainable transport facilities it has been estimated that 13.3% of Southern Housing 's homes have cycle storage facilities provided based on build date assumptions. It is reported Southern Housing have EV charging installed at 1.3% of their properties and have consulted their "Resident Policy Panel" as part of developing a charge point policy. Address specific sustainable transport advice is provided to 1.29 % of residents in "Welcome Packs" given to new residents. These packs contain local travel maps detailing local public transport information and walking routes. Cycle training, eco-driving information, car sharing and personal travel planning are also provided by the "Travel Champion". As a result of Southern Housing Housing's sustainable transport interventions, the increased likelihood of residents using sustainable transport is 3.82%. Below you can see how your performance compares to other SHIFT landlords.



Peer Comparison: *Good*

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Create Green Pages for residents which provides transport information. This will include cycle path maps and public transport options. Car clubs and other sustainable transport options can be included.	Low	Low	Low
Create a database which shows sustainable transport features that are included in each home. This can be an add-on module to asset management database. It should have fields for noting the presence of cycle storage, nominated parking and EV chargers. As well as showing where current cycle storage is located, the database can be populated with information from new	Low	Low	Low

build. SHIFT can provide first pass assumptions of which homes may have cycle storage to start the database.			
Retrofit at least 1% of homes with EV chargers and record in the database.	Low	Low	Medium
Retrofit at least 1% of homes with cycle storage units and record in the database.	Low	Low	Medium

New build

More sustainable new homes means lower whole-life costs for the landlord. Retrofitting non-sustainable homes at a later date incurs higher whole life costs for the landlord. In addition, when good quality new homes are added to the asset register, they improve the average environmental performance in a cost-effective manner.

The SHIFT metric factors in a range of measures to determine the sustainability of new builds, including energy efficiency, above ground biomass, flood risk, overheating risk, recycling support, use responsibly sourced materials and sustainable transport support.

We also encourage the use of some form of third-party verification to ensure that the so-called performance gap between design and final home, is minimised. There is no intention to create an industry out of this and we believe that there is sufficient data and systems in place to do this effectively without extra cost.

Figures for this assessment were provided by Southern Housing's Sustainability Reporting Manager. It indicated that 1.28% of homes achieved EPC A (SAP 92+), 18.80% of homes achieved a high EPC B (SAP 86-91), 63.55% a low EPC B (SAP 81-85) and 16.37% an EPC C (SAP 69-80). It is highly recommended that Southern Housing builds more homes to an EPC Grade A (SAP 92+ minimum). Southern Housing recognises that this will help bring up its average energy efficiency closer to environmentally safe levels and reduce the level of investment needed in its existing stock in order to achieve the net-zero 2050 target.

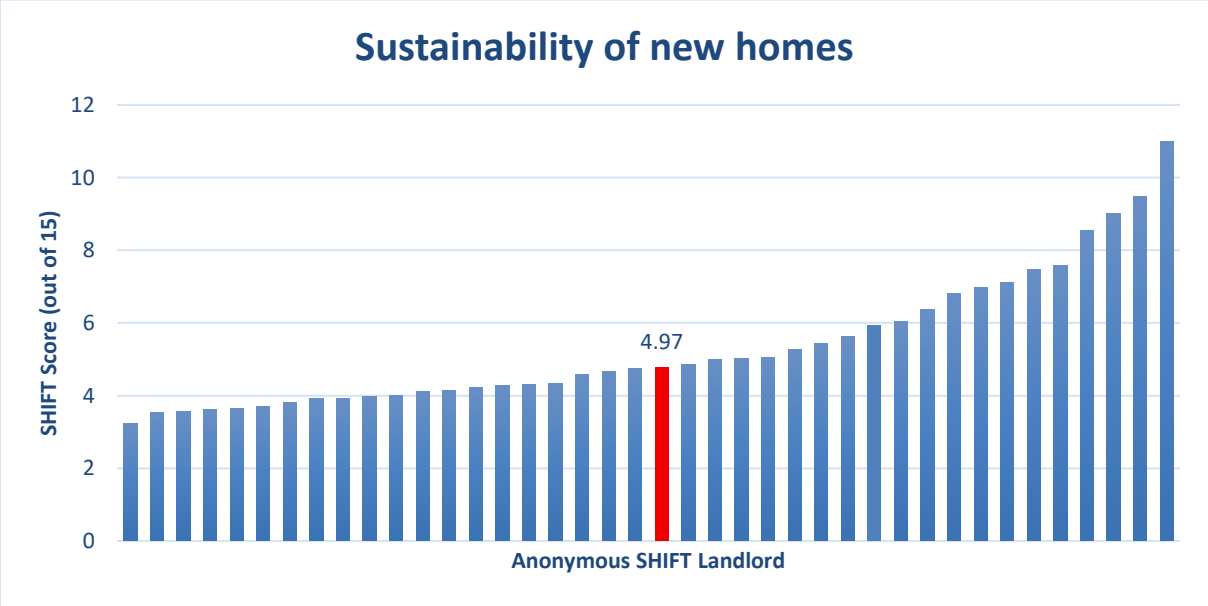
Southern Housing provided figures for the following sustainability features:

- Internal recycling bins: 68.78%
- Low risk of flooding: 75.06%
- Low risk of overheating: 100%
- Sufficient biomass/biodiversity: 91.94%
- Cycle storage: 99.39%
- Responsibly sourced materials: 26.85%

Southern Housing currently carry out "part" post-occupancy verification (which was documented on their GIS software) to 33.76% of their new builds to determine whether the above sustainability features have been installed as expected by the developers. This could be considered "full verification" by adding the name and job of the suitably qualified person (independent of developments department) to the logged information.

Using the SHIFT calculator for new build and the data above, the sustainability score for Southern Housing's new build homes is 4.97 out of 15.

Southern Housing provided researched detail regarding the whole life embodied carbon of a typical Bovis Homes' house. At time of writing, it wasn't clear how many of Southern Housing's new homes were built by Bovis. Therefore, the SHIFT default of 35,196 kg CO_2e per home has been applied to estimate a total of 27,523.27 tonnes CO_2e for the 782 homes built.



Peer Comparison: *Comparable*

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Develop an environmental quality management system (EQMS) for new builds that includes net zero homes, in addition to other environmental issues, a design specification, independent on-site checks and post-	Low	Low	Low

handover checks. The system should enable easy data collection for a variety of reporting and hand over to asset management colleagues[2]. SHIFT has produced a draft EQMS ask your SHIFT assessor for a copy.			
Implement the EQMS	Medium	Medium	Medium
Create your own design specification that includes building to an EPC A (high EPC B as a minimum). Ensure new builds meet this standard (as verified by the EQMS), at least on your land-led schemes. The cost to retrofit to Net zero (EPC A) will be more expensive than future-proofing homes as they are built.	Medium	Medium	Medium
Install MVHR space heating and heat-pump hot water heating in ~5% of new builds.	Medium	Low	Low
Conduct a supply chain survey of your new build contractors to ensure that they are working to the same sustainability goals as you. You can contact your SHIFT assessor for our supply chain survey but the main issue will be embodied CO_2 in the materials used.	Low	Low	Low

[2] SHIFT: Data to transfer from the new build department to asset management

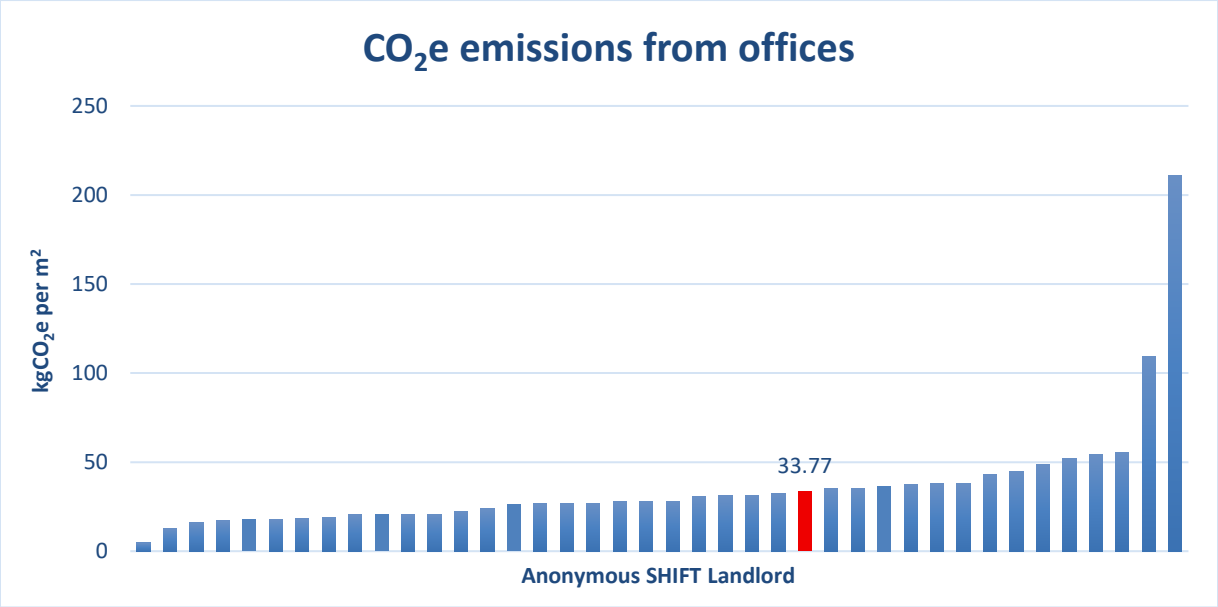
Offices & Operations

Offices and operations have a minor impact on the organisation's overall environmental performance but there are several advantages to focusing on improving their environmental qualities. Utility bills reduce, staff can see a tangible commitment to sustainability, and facilities teams gain first-hand experience in environmental technologies. In addition, new regulations are emerging which will impact on building performance.

Energy usage

The ultimate target is net zero emissions by 2050 through low energy demand buildings and a decarbonised grid. The Government states a target of rented, non-domestic properties to be EPC B by 2030. Similar to homes, office buildings are expected to have non-fossil fuel heating systems.

Southern Housing provided energy data for their main office spaces. Office emissions have been calculated using the Defra carbon conversion factors. In total, it was estimated that 420 tonnes of CO_2e were emitted in the assessment period which equates to 33.77 kg CO_2e per m^2 of office space. Southern Housing Housing's Fleet House office has a solar PV array, a green roof, individual heating zone/room controls and motion-controlled LED lighting. Shading and blinds are installed on the windows and heating was provided by an air-to-air heat pump. The office is vehicle free and has cycle storage. Southern Housing has completed office audits to collate baseline information relating to energy and many of the sustainability areas identified by SHIFT. This will enable regular reporting, which will enable the tracking of office performance.



Peer Comparison: *Comparable*

Recommended improvements:

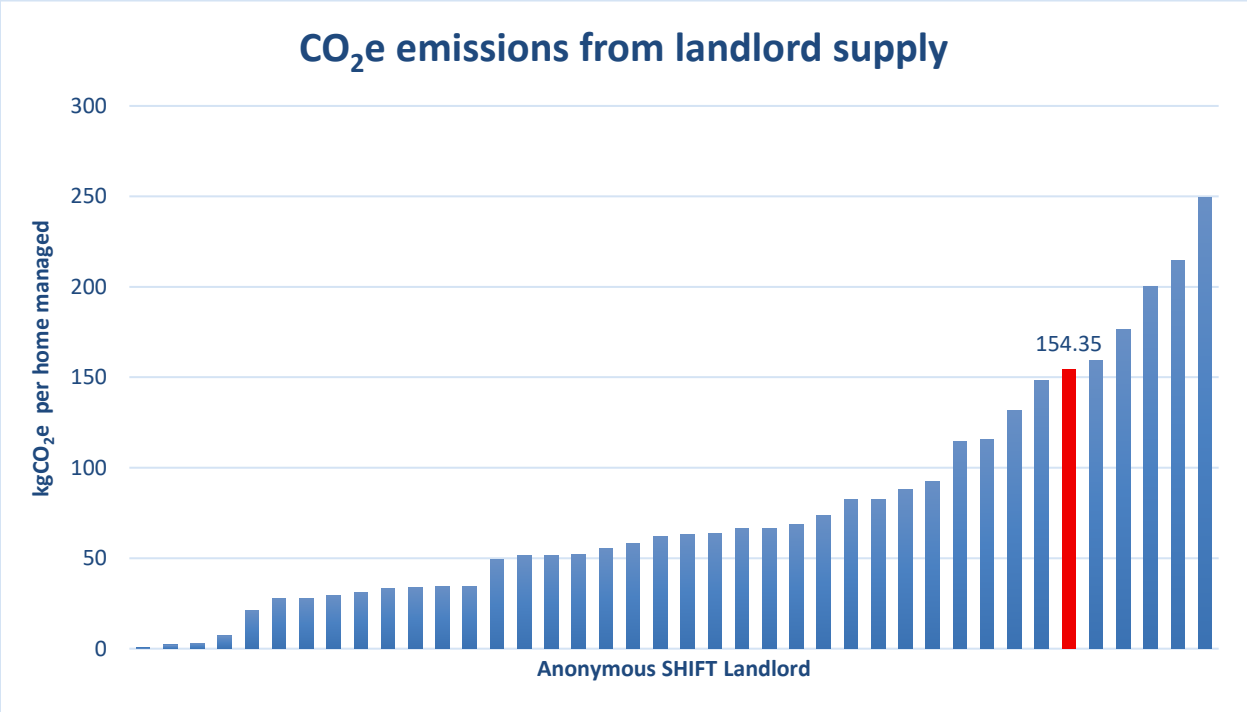
Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Devise plans to improve office energy efficiency – this can be by commissioning an EPC Recommendations Report and/or an ESOS[3] style review of each office. Ensure plans include transition to non-fossil fuel heating. This will most likely be electricity, but biomass and/or heat networks are also possible.	Low	Low	High
Implement the office energy efficiency plans.	Medium	Medium	High

[3] SHIFT ESOS reporting

Engage with staff annually to ensure energy efficiency is optimised through behaviours. Good housekeeping includes switching of computers, printing equipment, and lights when not in use.	Low	Low	Low

Other landlord supply

For SHIFT this is made up of communal areas in homes as well as 'other landlord supply' such as community centres. The associated CO_2 was calculated using the relevant Defra conversion factors. This totalled 9,420.11 tonnes CO_2 e or 154.35 kg CO_2 e/home managed. This is for the total number of homes which Southern Housing have decent homes responsibility. In previous assessments this intensity ratio has been calculated for the homes served by communal areas and the energy use from them. However, this intensity ratio aims to provide an indication of the energy consumption relative to the size of the organisation.



Peer Comparison: *Below average*

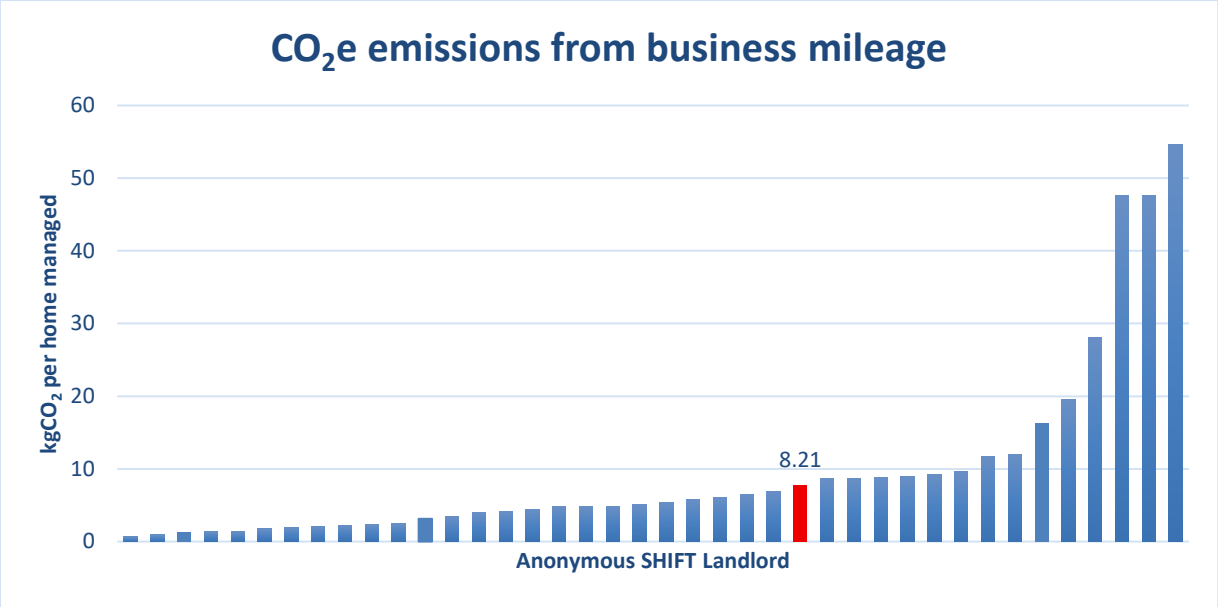
Recommended improvements

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Devise and implement net zero plans for each site not already captured elsewhere in this report – typically street lighting and other non-domestic sites like community centres or sewage treatment plants	Medium	Medium	High
Set up regular (at least quarterly) monitoring of non-domestic properties by kWh/entity. The monitoring should incorporate broker data and report anomalies to asset management to rectify. Monitoring saves energy and easily provides data for compliance reporting. Ensure other fuel types (e.g. biomass, oil, heat and steam is also captured).	Low	Medium	Low

Business mileage

Controlling business mileage expenditure can make a real difference to landlords. The SHIFT metric for business mileage looks at car claims, public transport usage and air miles (if applicable).

Business mileage data was collected by Southern Housing Housing's Sustainability Performance and Reporting Analyst for the 24/25 financial year. This included petrol, diesel, hybrid and unknown vehicle mileage from employee-owned vehicles. Public transport expenditure was reported as £354,974 spent on rail travel. Appropriate Defra carbon conversion factors were used to calculate that 501.32 tonnes CO_2e or 8.21 kg CO_2e per home managed was emitted through business travel.



Peer Comparison: *Comparable*

Recommended improvements:

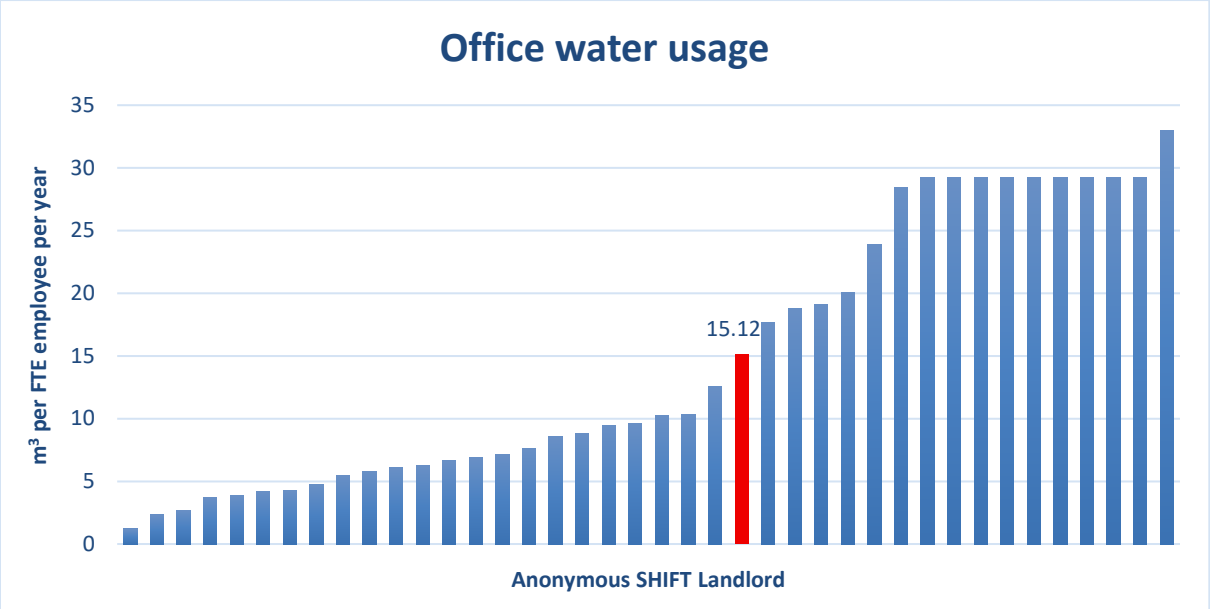
Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Carry out an analysis of business miles per employee to identify those with the highest mileage and identify ways to reduce this (e.g. switching to videoconferencing).	Low	Low	Low
Devise a sustainable transport policy that encourages public transport, car-sharing, reduces unnecessary travel, walking and cycling for business purposes.	Low	Low	Low

Ensure mileage claims include type of car e.g. petrol, diesel, hybrid or electric. This enables accurate calculation of CO_2 emissions.	Low	Low	Low
Consider if electric pool cars are viable. They could be stored and charged at the head office if charging infrastructure is installed. This may reduce fuel costs and discourage the use of personal vehicles for business travel[4].	Low	Low	Low

Water

Southern Housing were able to provide water data from five of their seven main offices - Building 800, The Oasts, Fleet house, The Courtyard and Grosvenor House. The SHIFT default value was applied to the The Watch Oak and King's Heath offices. Total water use was estimated as 13,142 m^3 at Southern Housing Housing's offices. This equates to 15.12 m^3 per employee.

[4] Download EV roundtable summary for practical experience from other landlords on EV chargers: SHIFT: Publications



Peer Comparison: *Comparable*

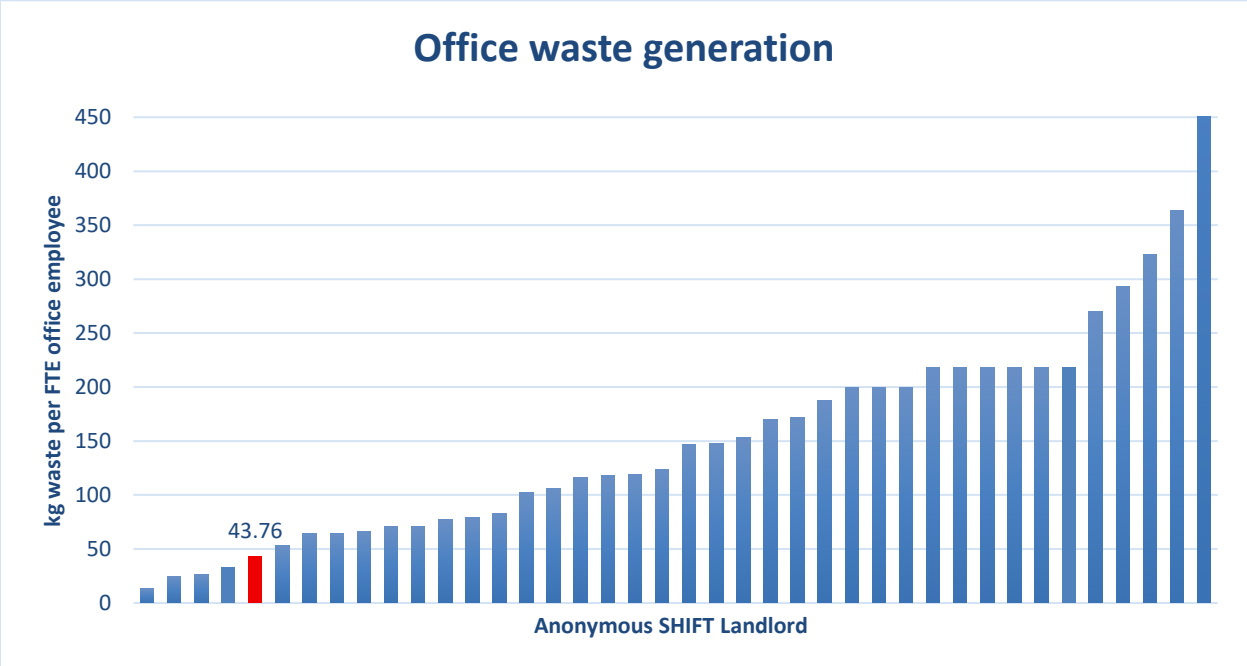
Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Set up a quarterly utility reporting system for your offices to keep a consistent track of data. This will also help identify leaks at an early stage.	Low	Low	Low
Carry out a water audit as this could identify further environmental and cost savings	Low	Low	Low
Engage staff on water efficiency initiatives and water saving measures. Incorporate these into water savings policies and procedures e.g., ensuring the dishwasher is full before turning it on.	Low	Low	Low

Waste

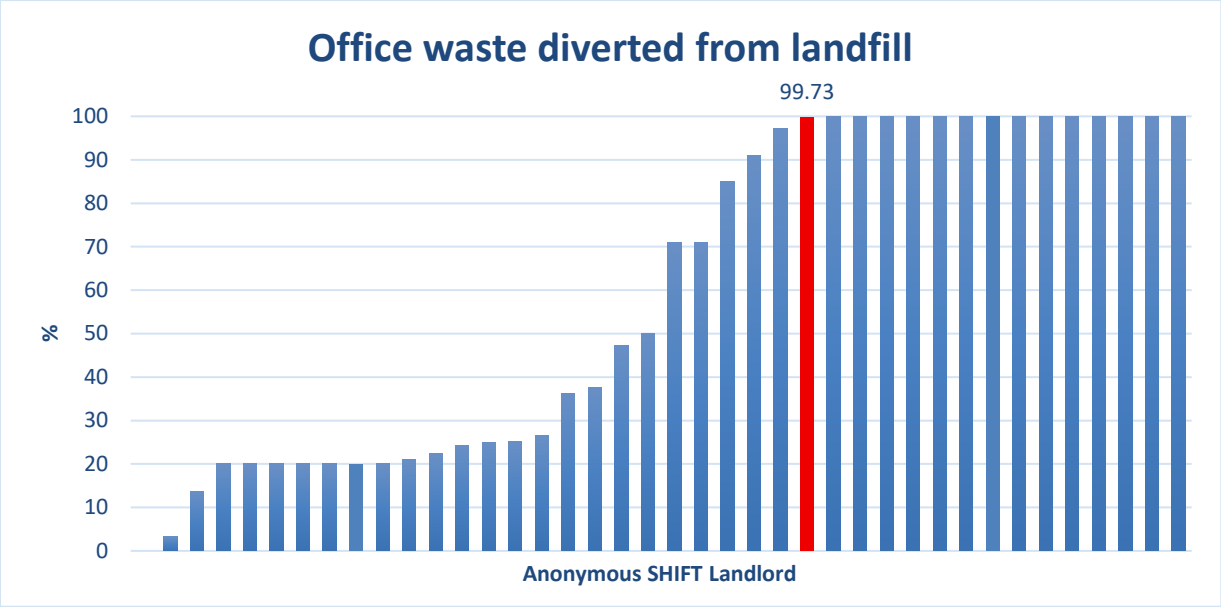
As interest rises in the circular economy, alongside an awareness of the damaging impacts of plastic pollution, companies from all sectors are ramping up efforts to tackle waste. Quantifying total waste outputs and treatment is an important first step.

Southern Housing collected waste data from their contractors Biffa and Recorra for all their offices apart from The Oasts. Southern Housing provided a waste transfer notice and bin information from Maidstone Borough Council who collect the waste from The Oasts office. Together, it is calculated that 38.03 tonnes of waste are generated at Southern Housing Housings offices, which is equivalent to 43.76 kgs waste per employee, per year. Southern Housing are currently working towards centralising office waste contracts to one service provider.



Peer Comparison: *Good*

The overall waste diversion rate was calculated using data collated in Southern Housing's "Biffa combined" waste report. Researched information was used to represent the percentage of waste diverted from The Oasts office. In total, it is estimated that 99.73% of Southern Housing Housing's office waste is diverted from landfill.



Peer Comparison: *Good*

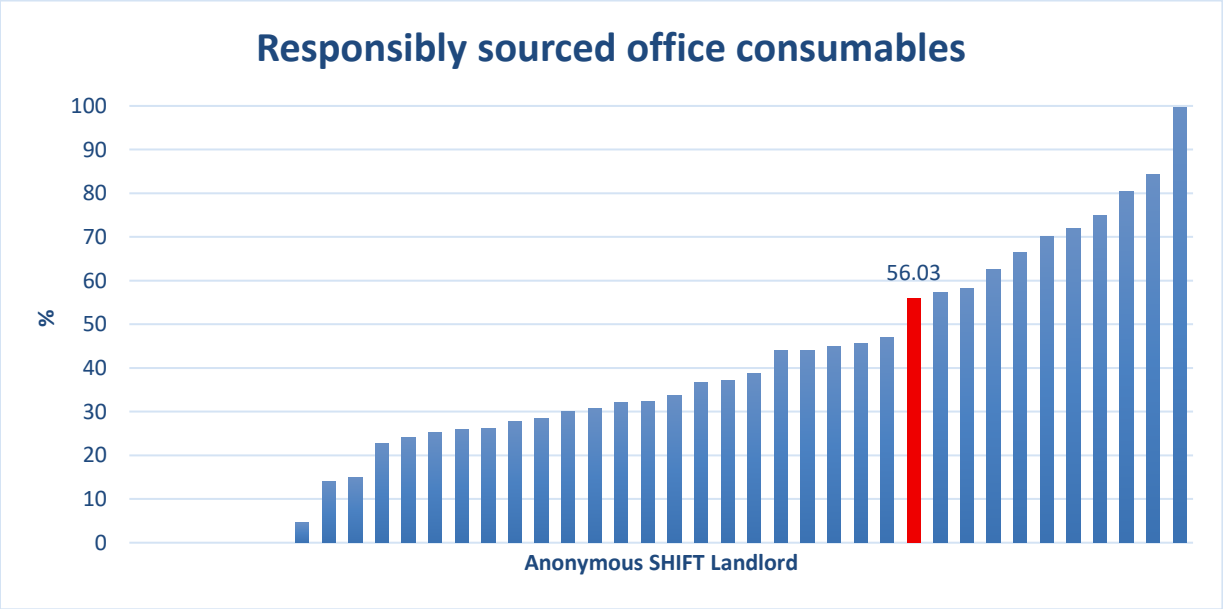
Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Engage with your waste contractor to provide a breakdown of waste disposition (landfill, recycling) as a minimum requirement.	Low	Low	Low
Develop your own waste monitoring system to begin developing waste reduction targets across various teams.	Low	Low	Low
Review in-house processes with the aim of reducing or even eradicating the necessity for printing – many processes are or can be electronic now.	Low	Low	Low

Provide clearly labelled/information on bins to encourage the correct recycling, making it easy for staff members and visitors.	Low	Low	High

Office consumables

Southern Housing provided their Lyreco Green Switch office procurement report for the 2024-25 reporting period. The report contained all office procurement purchases during the reporting period, 56.03% of which were deemed as responsibly sourced (green products). Requesting that all products from suppliers are clearly labelled as responsibly sourced will allow for easy selection and targeting of sustainable products. Make your supplier aware that this is a request that you'll be making annually for sustainability reporting.



Peer Comparison: *Good*

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Survey your suppliers (you can use the supply chain survey as a template) to receive a list of responsibly sourced consumables and a breakdown of spend for green/eco-label purchased products compared to those that are not.	Low	Low	Low
Increase the proportional spend on green/responsibly sourced products by ~5%. Consider an automatic switch through your current or new supplier.	Low	Low	Low

Offices adapted to flooding and overheating risk

Climate change will affect offices as well as homes. The same flood and overheating risk precautions should be taken for offices as for homes. This will ensure business continuity.

Southern Housing analysed the Environment Agency's Flood Risk maps and identified that all 7 office spaces are at either low, or very low risk to flooding.

No official overheating survey of Southern Housing Housing's offices has been conducted, but it is documented that all offices are at low risk to overheating. It was recorded in a previous SHIFT office visit that Fleet House office has zonal air conditioning, blinds and shaded windows.

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
For offices identified as at risk of overheating install risk reduction measures. Preferably passive measures such as the addition of brise soleil, blinds, and additional film glazing on windows. As a last resort, energy efficient air-conditioning.	Medium	Medium	Medium
For offices identified as at risk of flooding install risk reduction measures.	Medium	Medium	Low
Sign up to Environment Agency flood alerts and enact flood risk reduction measures accordingly.	Low	Low	Low

Strategy & Management

A strong sustainability strategy underpins robust environmental monitoring and performance at any organisation, by setting out a clear direction of travel in both the short and long term, as well as SMART KPIs to measure progress against. When assessing strategies for efficacy we look for specific, measurable, achievable, realistic and time-bound targets only, for a range of areas including energy efficiency, waste, water and climate adaptation. These targets provide clear direction to the staff who must implement them and give some assurance that your organisation will align with science-based environmental targets. In addition, senior level commitment and defined responsibilities help ensure the efficacy of the strategy.

The Environmental Sustainability Report 2023-26 identifies clear KPI's in all sustainability categories identified by SHIFT. Energy efficiency is a major element - all homes to be EPC "C" by 2030, all new homes built to EPC "B", and all properties retrofit by 2050 (Pathway to 2050). Additionally, all offices and commercial properties will be EPC "C" by 2027 and EPC "B" by 2030. To build climate resilience, Southern Housing are developing an internal flood resilience standard using GIS and implementing a flood alert system. Southern Housing will be carrying out overheating risk assessments for blocks of flats served by heat networks.

Southern Housing have set targets to reduce water consumption across their homes (139.6 litres per person, per day by 2026) and offices (15.65m^3 per employee, per year by 2026). The strategy also addresses waste and fly tipping through resident engagement and targets to improve reporting. Southern Housing are developing a biodiversity action plan, conducting a "natural asset" audit by the end of 2025 and ensuring that 10% biodiversity net gain is met on all new build from 2024. They are also working with their supply chain to increase responsibly sourced materials by 2026. Finally, the strategy also provides detail of Southern Housing Housing's plan to transition to an all-electric fleet by 2030, as well as piloting EV charging infrastructure across offices, commercial, key worker, student accommodation and care homes by 2026.

Southern Housing continue to demonstrate their commitment to sustainability through annual ESG reporting since 2021-2022. Their ESG reports provide annual updates and performance across all areas of the business, linked to the sustainability strategy through the UN's Sustainability Development Goals.

Peer Comparison: *Ahead*

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Integrate KPIs into your strategy so that all areas of sustainability that are covered by SHIFT are included. Ensure targets align with corporate objectives.	Low	Low	Low
Ensure actions are assigned to directorates and monitor progress quarterly.	Low	Low	Low
Communicate targets across the organisation to staff and residents.	Low	Low	Low
Implement quarterly scorecard style reporting of environmental metrics to Senior Management Teams. (By adapting the advice given in earlier sections to include data in asset management systems, this may become an easier task).	Low	Low	Low
Lobby Government to develop a sensible funding mechanism for funding upgrades to net zero.	Low	Low	High

DLO & Supply Chain

Engaging with your supply chain is a way to encourage improved environmental performance. As well as bringing an enhanced local environment to staff and residents, there are also financial benefits for your organisation. For example, if a maintenance contractor uses more efficient transport, they save costs which could be passed on to you. More landlords are reporting ESG investors asking about supply chain emissions. Our calculations so far indicate that supply chain emissions are a significant proportion of a landlord's overall carbon footprint.

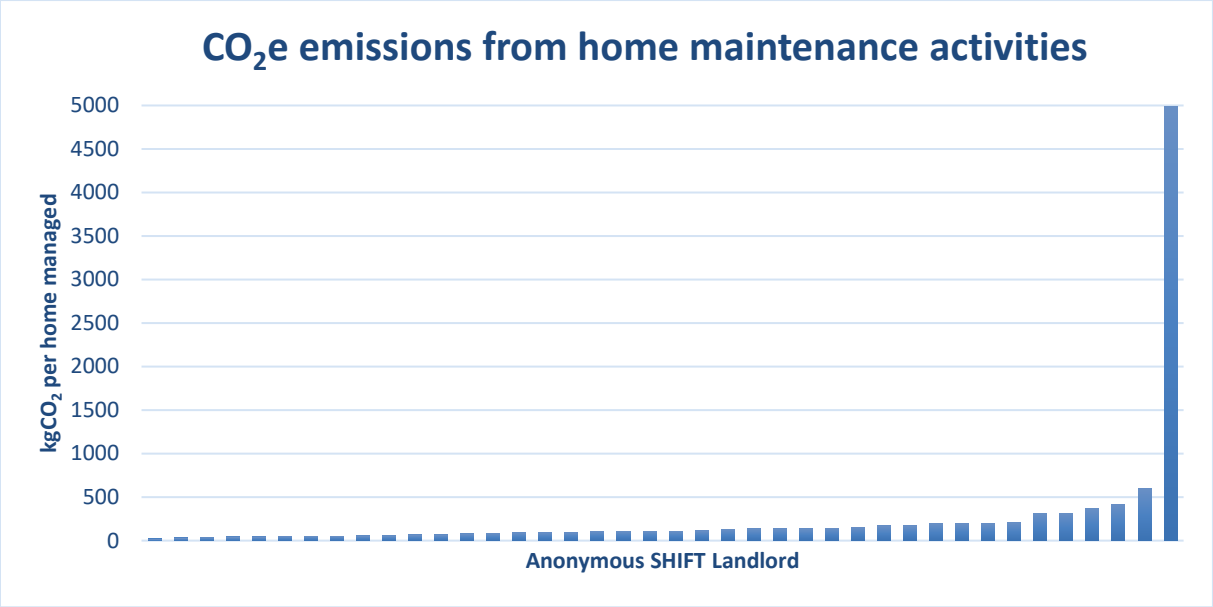
For SHIFT purposes, we include in-house maintenance team data in with the supply chain questions. This allows better comparability between organisations that have a DLO versus those that subcontract out all work.

Maintenance CO_2e emissions

In-house (DLO) and subcontracted maintenance teams emit CO_2e from their fleets, offices, and other operations. Importantly, maintenance fleets also emit air pollutants which contribute to localised poor air quality and consequential health issues.

Southern Housing provided the litres of diesel and petrol fuel bought and EV usage for their DLO fleet. In total, Southern Housing Housing's fleet produced 1,334.35 tonnes CO_2e. Additionally, 19 of Southern Housing Housing's suppliers/contractors completed and returned Southern Housing's "Supply chain" audit. Southern Housing also conducted desktop research - using publicly available information to calculate attributable CO_2e from two further suppliers. When emissions from the DLO and suppliers are scaled up are scaled up to represent 100% of the supply chain, this totals 3,776.72 tonnes CO_2e or 61.88 kgs per home managed.

In previous assessments this intensity ratio has been calculated for the CO_2e emissions provided and not scaled to 100%. However, this intensity ratio aims to provide an indication of the energy consumption for 100% of the repairs and maintenance budget. Due to this change in methodology, intensity ratios from previous SHIFT assessments are not available to provide comparison graphs for this SHIFT assessment.



Peer Comparison: The above graph shows the current data we have on maintenance emissions. This has been included to demonstrate the disparity of emissions reporting within the repairs and maintenance sector. As this is for indicative purposes only, Southern Housing's performance is not plotted

As part of SHIFT 2025 embodied carbon figures for repairs and maintenance are being included. The aim is to encourage landlords to request this information from external suppliers and gain detailed waste reports for their in-house maintenance to facilitate these calculations. It is expected that most external suppliers will not be able to provide embodied carbon figures at this stage. However, landlords should demonstrate demand for this data and request this information as early as possible.

Southern Housing provided their DLO waste reports from all regions to allow embodied carbon to be calculated. The SHIFT assumption is that any material disposed of by the repairs and maintenance teams is replaced by like materials, therefore the embodied carbon can be calculated based on this. Several of Southern Housing's suppliers provided embodied carbon figures for works attributable to Southern Housing. However, the embodied carbon figure provided by Travis Perkins was excluded from the calculations as it was such a large outlier. The total embodied carbon for Southern Housing Housing's DLO and supply chain has been calculated to be 2,401.60 tonnes CO_2e, which is equivalent to 39.35 kgs CO_2e per home managed.

Recommended improvements:

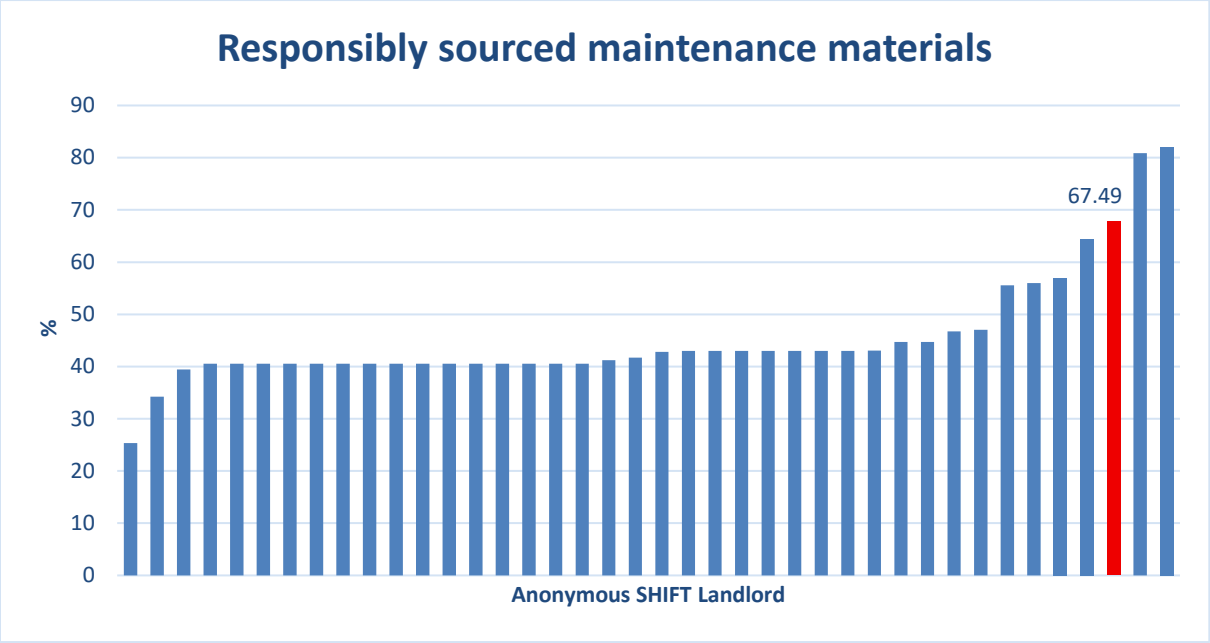
Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Devise a database that collects DLO fuel usage data. Many landlords now use fuel cards which record the litres of petrol or diesel bought. Accurate mileage for EV vans should also be recorded. Installing EV charge points which are sub metered would allow accurate reporting of kWhs.	Low	Low	Medium
Implement a telematics system for fleet vehicles, ensuring that quarterly reports can be extracted.	Low	Low	Medium
Combine DLO fuel usage and telematics data to set up monthly monitoring of mpg data and enable anomaly identification and investigation with alerts for the fleet manager.	Low	Medium	Medium
Upgrade at least ~5% of vehicles in the fleet to a more efficient vehicle, possibly an EV if charge points and range allow.	Medium	Low	Medium
Include a clause in procurement contracts stipulating that suppliers must answer the annual environmental survey. This is to encourage engagement.	Low	Low	Medium
Conduct an annual supply chain environmental survey for the largest suppliers. Ask your SHIFT assessor for a standard survey question template.	Low	Low	medium

Benchmark contractors' carbon emissions per £1,000 of contract value annually. This can be a good way of identifying anomalies – where a contractor's CO_2e per £1,000 spend is much lower or higher than the average, you can see how their calculations are verified.	Low	Low	Medium
Communicate to existing and potential suppliers your commitment to sustainability and explain you want to work with organisations who will help you on your journey.	Low	Low	Low
Inform Travis Perkins that their embodied carbon was extremely high for the amount that Southern Housing spend. This will allow Travis Perkins to explain their methodology or revise calculations for future reporting.	Low	Low	Low

Responsibly sourced maintenance materials

Responsibly sourced materials have been manufactured in an environmentally sound way and where the producers treat their workers well. Although there are many eco-labelling schemes for maintenance materials, this remains a difficult area to assess. Nevertheless, SHIFT encourages maintenance teams and contractors to devise ways to assess this themselves using a methodical approach.

Southern Housing engaged with several major suppliers on their responsible sourcing of materials. The weighted average from the data provided by suppliers and DLO (30.56% of spend) was calculated, this was then combined with the SHIFT default to estimate that 67.49% of materials used in Southern Housing's repairs and maintenance works are responsibly sourced.



Peer Comparison: *Good.*

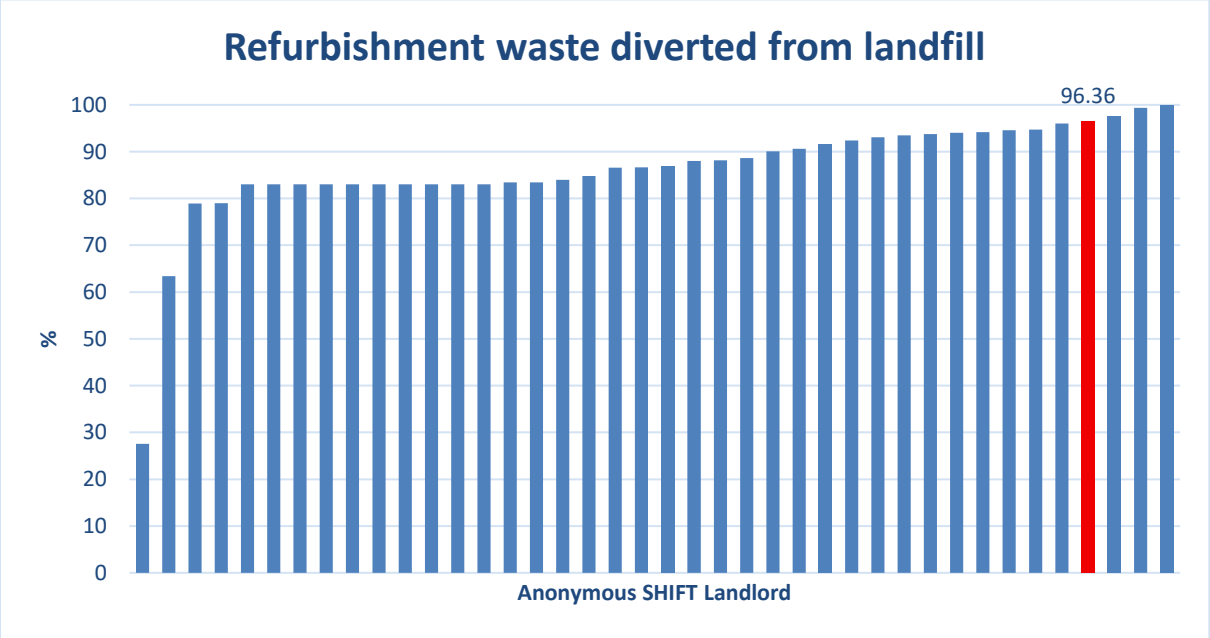
Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Communicate to existing and potential suppliers your commitment to sustainability and explain you want to work with organisations who will help you on your journey.	Low	Low	Low
Include a clause in procurement contracts stipulating that suppliers must answer the annual environmental survey. This is to encourage engagement.	Low	Low	Medium
Lobby the Supply Chain School to devise a practical and meaningful metric for responsibly sourced materials. Here is an interim metric we have devised at SHIFT: A new metric for sourcing materials responsibly	Low	Low	Low

Refurbishment recycling

Detailed breakdowns of waste treatment are normally available from contractors and DLOs. Good reporting and recycling practices should be factored into the decision-making when contractors are selected. Knowing the total amount of waste generated is proving useful for embodied carbon calculations, especially where the quantity of new materials used is unknown, which is often the case. Our thought process is that if a tonne of waste is generated, e.g. from a roof replacement, then approximately a tonne of new materials is used in the replacement of that roof. From this data we can approximate embodied CO_2 of materials used in maintenance.

Southern Housing provided waste reports from their 5 regional DLO waste contractors, as well as data from 25 of their suppliers. The weighted average of the percentages of waste diverted from landfill was then calculated for the overall percentage of DLO and supply chain. It has been calculated that 96.36% of Southern Housing's repairs and maintenance waste is diverted from landfill.



Peer Comparison: *Good*

Recommended improvements:

Action	Cost High/ Medium /Low	Staff resources High/ Medium /Low	Likelihood of regulation High/ Medium /Low
Require subcontracted maintenance firms to report their recycling rates to you and provide supporting evidence in the form of waste reports.	Lo	Lo	Med
Implementing subcontractor KPIs, aiming for 100% diverted from landfill by 2050.	Lo	Lo	Med

SHIFT

SHIFT carries out a full range of environmental reporting specialising in the social housing sector. We do:

- SHIFT standard – environmental reporting and accreditation for existing homes, new build, supply chain and offices
- Related consultancy and compliance e.g., ESG, ESOS and SECR reporting
- Environmental road mapping and strategy development – creating a path from a baseline to a truly sustainable housing stock whilst maximising financial benefits to the landlord
- Post-Occupancy Evaluation – comparing actual performance in retrofit and new build with design performance

Please be in touch for a free consultation on any of the above. Contact Richard on 07718 647117 or richard@SHIFTenvironment.co.uk

SHIFT is run and managed by Suss Housing Ltd

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