Coastline Housing

SHIFT Environmental Report

2024

SHIFT

The SHIFT brand is owned by:

SH
SUSS HOUSING

Contents

Executive summary

This report details Coastline's latest environmental performance. It is based on the primary data provided by your organisation and this data is transformed using nationally established methodologies where available. Where national methodologies are not available, we have used methodologies devised by SHIFT based on our experience and available science.

We urge you to implement the actions highlighted in this report which mean you will effectively manage your way to a sustainable stock and sustainable operations. As well as the environmental imperative, there is substantial evidence for the financial benefits of doing so[1].

The report is aligned to directorates within your organisation which will make improvements easier to identify.

As well as driving action, clients use the data in SHIFT report for:

- Effective environmental strategy development
- ESG reporting
- Annual progress monitoring on environmental targets
- Compliance reporting – most recently 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.

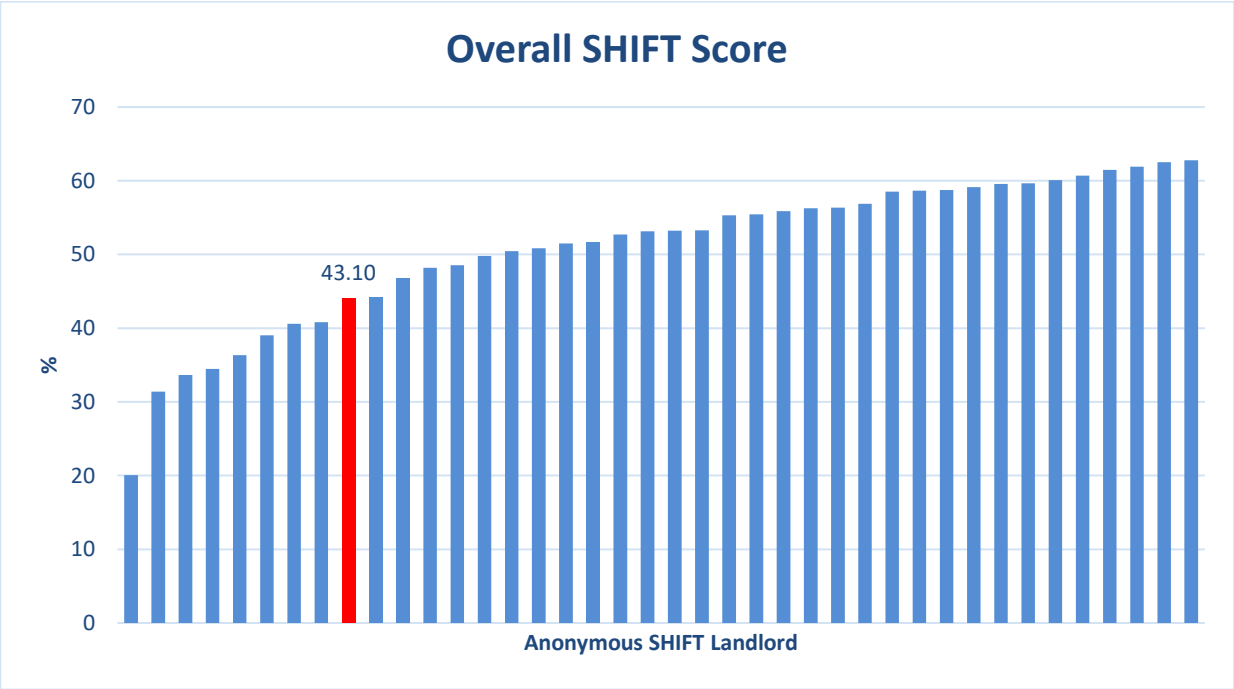
The report spans existing homes, new build, facilities, resident engagement, supply chain and strategy and management. It covers energy and resource use, transport and travel, climate risk, biodiversity and responsible sourcing, thereby providing a comprehensive overview of your organisation's environmental footprint.

One emerging theme over the past year is data management, availability, and quality. We have streamlined SHIFT to encourage clients to provide data in a consistent manner. The feedback so far is excellent and the whole process is becoming easier. Many of the actions in the report relate to data management and we believe this will be key to the success of sustainability strategies.

[1] SHIFT: 6 financial opportunities climate change could bring

Coastline Housing provide and manage over 5,000 affordable homes across Cornwall. The results of this assessment will show, as best as the data allows, the gaps between Coastline's current environmental performance and environmentally safe levels of impact. Coastline 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 Coastline's environmental performance progress and support the identification of targeted areas for improvement.

Coastline Housing has achieved the SHIFT Silver accreditation, with a score of 43.10. It ranks 32nd out of the 40 most recent SHIFT assessments.



Throughout the report you will see your organisation's sustainability performance across key areas of your business and how it compares to that of other SHIFT landlords. There are also detailed recommendations and gap analyses which we urge you to use.

Overall performance

Carbon

Environmental issue	Absolute[1]	Intensity[2]	Intensity target for SHIFT platinum 2024[3]	Long term intensity target (by 2050 unless otherwise stated)
Individually heated homes, regulated emissions Scope 3	6,209.19 tonnes CO_2e	SAP 73.29 1.339.63 kg CO_2e/ independently heated home	SAP 74.54×	SAP 85
Communal heating systems metered data Scope 1 metered data Scope 2 [4]	174.94 tonnes CO_2e 0 tonnes CO_2e	14,943.03 kWh / home managed	5,240.69 kWh / home managed×	3,600 kWh / home managed
Other landlord supply Scope 1 Scope 2 [4]	130.21 tonnes CO_2e 161.54 tonnes CO_2e	62.09 kg CO_2e / home managed	104.90 kg CO_2e / home managed✓	0 kg CO_2e / home managed
Offices Scope 1 Scope 2 [4]	21.13 tonnes CO_2e 32.54 tonnes CO_2e	109.09 kg CO_2e /m^2	50.12 kg CO_2e /m^2×	0 kg CO_2e / m2
Business mileage Scope 3	22.59 tonnes CO_2e	4.81 kg CO_2e / per home managed	8.83 kg CO_2e / per home managed✓	0 kg CO_2e / home managed
Maintenance activities DLO Scope 1	227.53 tonnes CO_2e			
Scope 1-3 scaled up to represent 100%[5]	517.11 tonnes CO_2e	110.05 kg CO_2e / per home managed	TBA	0 kg CO_2e / home managed
Embodied Carbon Repairs and Maintenance Scope 3 New Build Scope 3	183.26 tonnes CO_2e 6,722.43 tonnes CO_2e	39 kg CO_2e / per home managed 35,196 kg CO_2e / per new home	TBA TBA	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 2024[3]	Long term intensity target (by 2050 unless otherwise stated)
Water – homes	0.54 million m^3	136.73 lpd	137.61 lpd✓	110 lpd
Water – offices	2921.19 m^3	29.21 m^3/employee/yr	6.62 m^3 / employee/yr×	3m^3/employee/yr by 2030
Waste – homes	9% of homes with internal recycling bins	6.36 % increase in residents diverting waste from landfill	7.19% increase in residents diverting waste from landfill×	17.6% increase in residents diverting waste from landfill
Waste generated – offices	32.30 tonnes	13.67% of waste diverted from landfill	74.03% waste diverted from landfill×	100% diverted from landfill
Promotion of sustainable transport facilities – homes	7.3% homes with cycle storage	1.53% increased likelihood of resident use	TBC	100% increased likelihood of resident use
Responsible materials – maintenance & capital works	40.54%	40.54%	51.42% responsibly sourced×	100% responsibly sourced
Responsible materials - offices	15%	15%	62.26% responsibly sourced×	100% responsibly sourced
Adaptation to climate change – homes protected from flooding	3,916 homes	83.33% of homes adapted to flood risk	85.05% adapted to flood risk×	100% adapted to flood risk
Adaptation to climate change – homes protected from overheating	4,139 homes	88.10% of homes adapted to overheating risk	80.28% adapted to overheating risk✓	100% adapted to overheating risk
Biodiversity value	499.21 tonnes biomass above ground	7.20 tonnes biomass per hectare	10.52 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.

4 – Scope 2 emissions here include Scope 3 transmission & distribution losses associated with UK electricity. To calculate just Scope 2, please refer to the Defra carbon conversion factors for UK Electricity (scope 2) and Transmission & Distribution (scope 3)[2].

5 – This figure has been derived using available carbon emission data from the DLO and external suppliers, scaled up to represent 100% of repairs and maintenance activities.

[2] Defra Carbon Conversion Factors

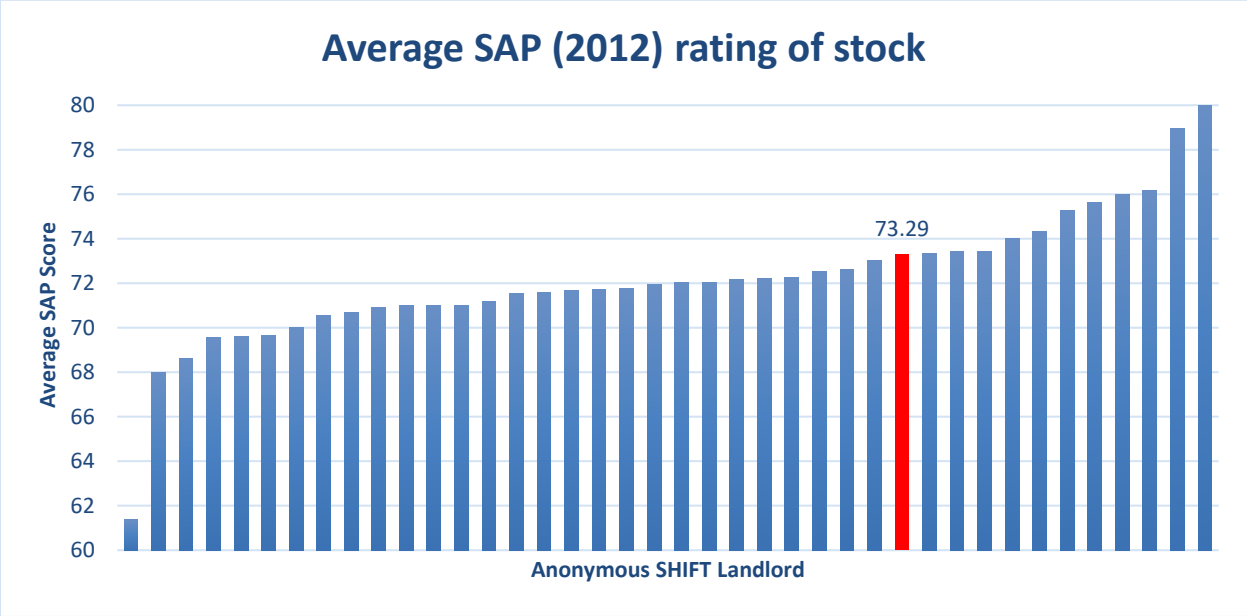
Existing Homes

Most of the homes that exist now will be in use in 2050 and the imperative to future proof them is gaining momentum. Therefore, it is essential to ensure that existing homes are truly sustainable. Your performance in each of these areas is presented below.

Energy and average SAP

Average SAP is a standard way of assessing energy efficiency in homes and high SAP ratings correlate with low CO_2 emissions. Despite many objections, SAP also remains the Government's favoured method for assessing energy efficiency. The SAP rating refers to the cost per m^2 of heating, hot water, lighting, pumps and fans. These are called regulated emissions. Unregulated emissions are appliances such as cookers, fridges and TVs. SHIFT research indicates that an average SAP of 85 represents a net zero housing stock and has been derived through a combination of achieving EPC C for all properties, shifting to electric heating (with corresponding changes to SAP methodology) and expected energy efficiency standards for new build up to 2050. Until there is an updated target for housing specifically, SHIFT recommends this as a long-term target. Please contact your SHIFT Assessor for a full explanation on how this target has been produced.

Energy performance data was extracted by Coastline's Sustainability Manager from their asset management database, which indicated an average SAP of 73.29 has been achieved across their housing stock.



Recommended improvements (if not already done):

- Develop detailed, address level plans that align with the UK's net zero pathway for homes:
    - All homes to be EPC C or better by 2030 – preferably by reducing energy demand
    - Switching to non-fossil fuel heating (most likely electricity) by 2050
    - Grid decarbonised to net zero by 2035
    - All new homes to be net zero
- Ensure the address level plan lists all the interventions needed to transform the home into a net zero home.
- When developing plans be conscious that there are still lots of issues to iron out (e.g., hard to treat homes, hydrogen fuel). At the time of writing heat pumps are low carbon but may increase residents' bills depending on the previous heating system in the properties. There are signals emerging from the Government that electricity bills could be cut to increase the viability of replacing gas boilers with electric systems, but no firm action has been announced.
- Ensure you have a full energy dataset for each of your properties. Traditional asset management databases do not have the fields for all the data necessary for planning upgrade works. There are third party software companies that do this, and they are very good and storing the data and performing SAP calculations for different upgrade scenarios. However, getting the correct data in the first place is proving difficult. It is largely a combination of interrogating the national EPC register, known information from asset management data and more detailed stock condition surveys. Getting a really good dataset can take a few years but this is not a reason for inactivity.
- Develop annual plans for upgrading stock. Some factors to consider are listed below. Having a full dataset available to asset teams will be essential for managing these upgrades in a cost-effective way. Factors worth considering:
    - Identify how many homes per year you will need to upgrade to EPC C by 2030
    - Focus on the worst first from your stock for ~80% of the annual number of homes you will need to upgrade. Look up the necessary upgrades from your asset energy dataset. These upgrades will have the biggest impact for the people living in the homes. Alternatively, it may force decisions within your organisation on the long-term future of those homes (e.g. regeneration or last resort, disposal)
    - For the remaining ~20% of the annual number of homes to upgrade consider a triggers approach which will save costs in the long run – ideally, you can do sustainability upgrade works at the same time as other anticipated works. The benefit of doing upgrades whilst you have access and trades could reduce installation costs. This approach will involve transforming the way your repairs and maintenance teams work and may take some time to change processes within your organisation, particularly setting up a routine such that for each trigger, the teams look up on the energy dataset relevant upgrades they can do at the same time. Triggers to consider:
        - Component replacements
        - Disrepair claims

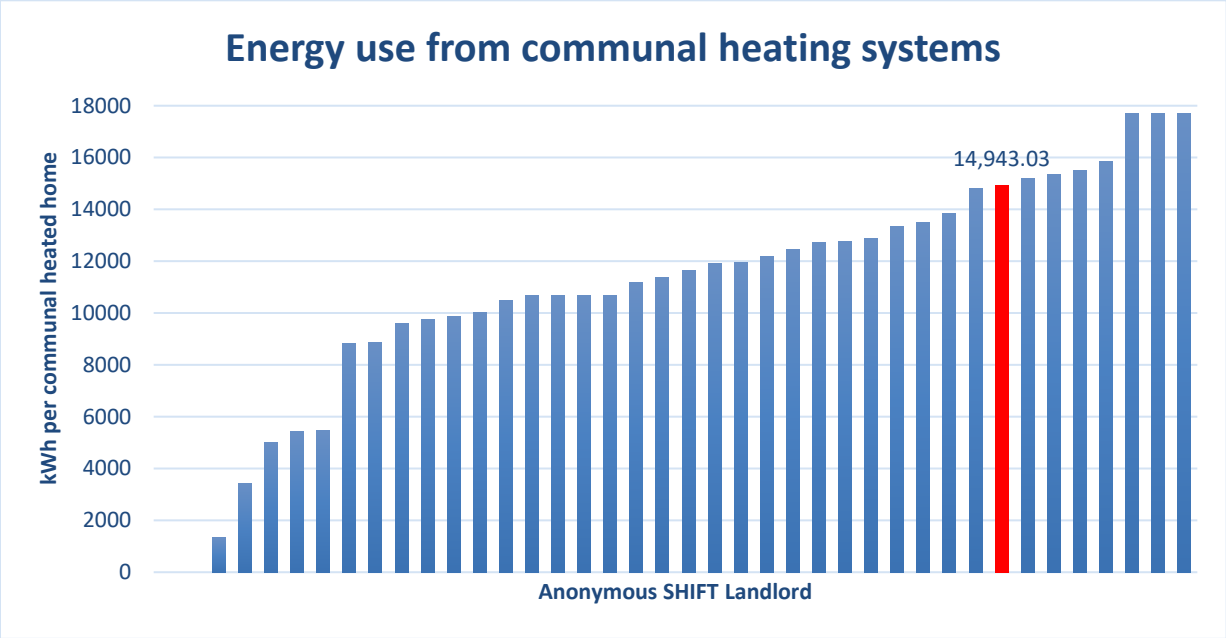
        - Voids
    - Resident engagement opportunity – some highly visible interventions are ideal for getting residents used to new technologies. If these are strategically distributed around the stock then there are more opportunities for residents to hear from each other about the new technologies, especially if they reduce bills. Example interventions that will be part of the future are:
        - Solar PV (possibly with battery storage)
        - Heat pumps
        - External wall insulation
- Implement stepping stone projects - even though finance mechanisms are not fully established for achieving net zero at the time of writing it is still possible to implement some measures that contribute to the eventual whole upgrade of the home.
- During upgrades consider addressing other sustainability issues such as adapting to climate change, water efficiency, internal waste recycling bins and cycle storage. More detail on what to do is listed in the relevant sections below.
- Monitor progress at a strategic level, ideally produce quarterly reports on average SAP. In the absence of any clearer definitions of net zero for housing, SHIFT has reviewed the net zero pathway and has assessed that, if the roadmap is followed, and the promise of cheaper bills for residents is kept, then by 2050 the average SAP of the stock will be SAP 85. This includes all the new builds added to the stock. Average SAP is a straightforward metric to monitor on a quarterly basis.
- Consider APIs and/or Power BI which link asset management database with third party software. This will enable faster and easier environmental reporting and the third parties will be able to keep the SAP methodologies up to date in a rapidly changing environment.
- If you have over ~50 solar PV arrays in your stock, consider monitoring their performance based on actual sunlight. Third party systems are available to do this which may ensure that landlords are maximising their income from them. Please ask your SHIFT assessor for more information on this.
- Encourage your leadership team to campaign for a sensible funding structure to help fund the transition to net zero. Here is an example of one possible funding structure: https://shiftenvironment.co.uk/news/funding-net-zero-a-thought-piece/

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.

Coastline identified 64 communally heated properties, all located at Miner's Court. These should be clearly documented under the requirements of the Heat Networks (Metering and

Billing) Regulations 2020. The relevant 2023 Defra conversion factors have been applied to the total 956,354 kWh of energy use in Coastline's communally heated homes. This equates to 14,943.03 kWh per home and 174.94 tonnes CO_2e. The table below shows the average kWh values per communally heated home from other SHIFT landlords.



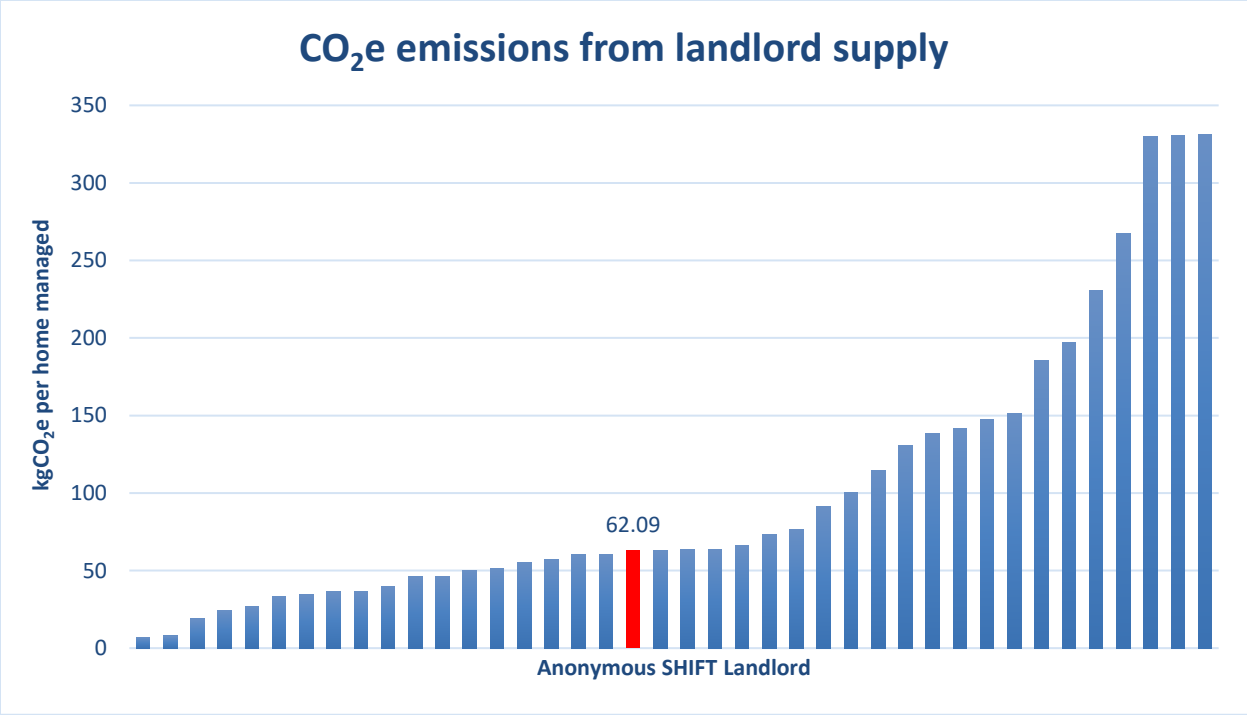
Recommended improvements:

- Identify your worst performing blocks by calculating kWh/unit and benchmarking against other blocks or against SAP estimates of what the kWh/unit should be. Focus improvements on these blocks.
- Ensure full compliance with the Heat Networks (metering and billing) regulations and install individual meters where viable.
- We recommend improving databases to show a clear link between communally heated homes and the communal system they get their heating from. If existing databases don't allow this, then perhaps explore a way of doing it using Power BI or other integrating software. This will allow calculating the actual 12-month energy use for each flat and feeding this back into the asset management database. This will for allow better CO_2 emission calculations.
- Conduct a review of all communal systems in your stock – the review should include control settings, boilers, pumps and bypass valves. Contact your SHIFT assessor for more information on this.
- Ensure that replacement systems are not oversized – this can lead to excess maintenance, poor use of space and overheating in flats.
- Ensure that new build colleagues specify systems correctly – try to get input into new schemes at an early stage.

- The Climate Change Committee recommendation is for all communal heating systems to be net zero by 2040.

Other communal area energy

For SHIFT this is made up of communal areas in homes as well as 'other landlord supply' such as community centres. Coastline identified 1,429,764.75 kWh of communal area usage during the reporting period. The associated CO_2 was calculated using the relevant Defra conversion factors. This totalled 291.75 tonnes CO_2e or 62.09 kg CO_2e/home managed. This is for the total number of homes which Coastline 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.



Recommended improvements:

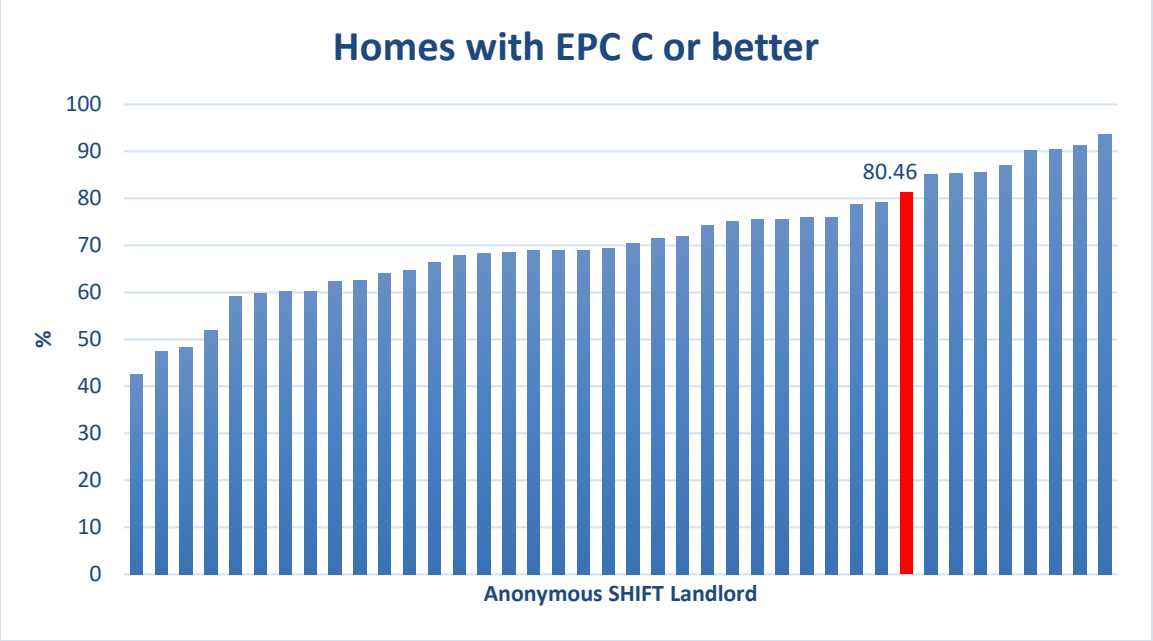
- Compare year on year results to ensure that data is comparable and complete – data from energy brokers is often supplied manually and is sometimes prone to error.
- Ensure that energy use from other fuels beyond gas and electricity are captured – typically this includes steam and biomass.
- Use energy broker data analysis for sustainability, financial and regulatory purposes.
- Switch communal area lighting to LED and automatic lighting within blocks and outside areas.
- Consider low energy street lighting.

- Derive net zero plans for all other buildings in your portfolio. The net zero roadmap for non-domestic buildings is for each building to be EPC B by 2030 and then switch to non-fossil fuel heating. Again, the national strategy is to have a net zero grid by 2035 so electrically heated buildings should be net zero by then.

Fuel poverty

Tackling fuel poverty now 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 Coastline's asset management database, 3,781 properties are believed to be EPC C or above, this equates to 80.46% of Coastline's stock. Including leaseholders and shared ownership properties may bring this figure up but as Coastline are not responsible for major works for these properties, they have been excluded from the SHIFT assessment.



Recommended improvements:

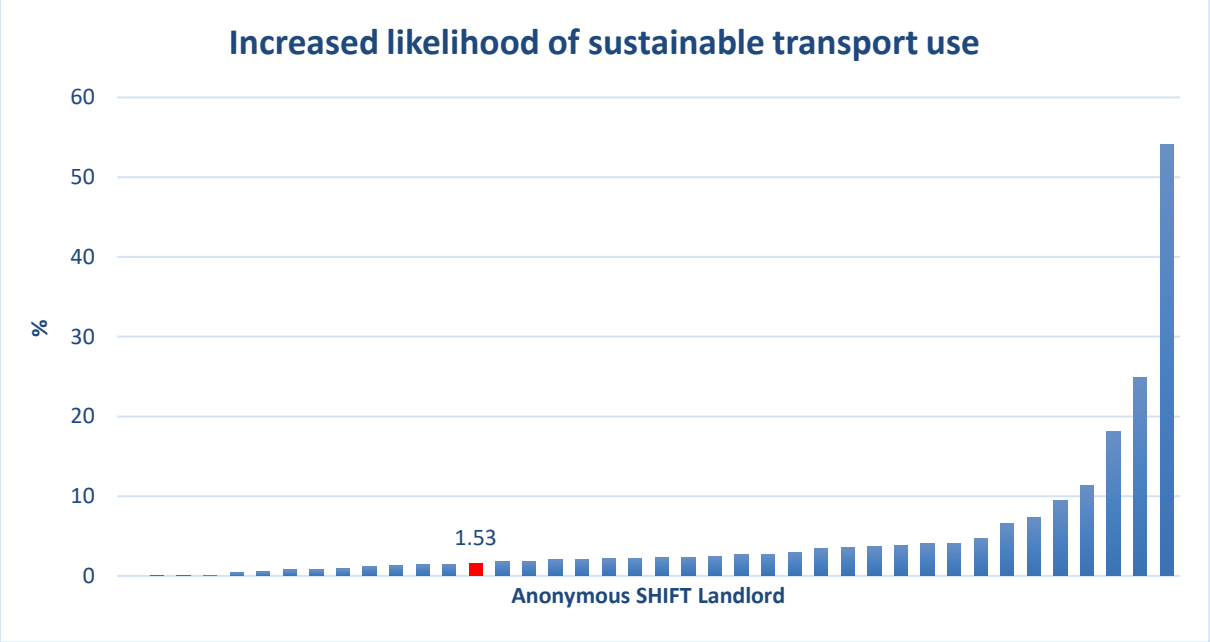
- Include in net zero plans ways to achieve the Government target of EPC C or better by 2030. Landlords should ensure this is identified in their strategies and develop upgrade plans to reach this.
- Carefully consider interventions such as rent a roof PV schemes which improve EPC but do not necessarily lead to big cost savings for residents. This is because these schemes often sell the generated energy at normal prices to recoup their investment.

- The current version of SAP gives generous rewards for solar PV. This may not be the case when the new version of SAP is issued, so it would be wise to concentrate on improvements that reduce energy demand such as insulation.

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 7.3% of Coastline's homes have cycle storage facilities provided based on build date assumptions. It is assumed Coastline have EV charging installed at 0% of their properties, this is likely an underestimation as no current data was made available for this report. Currently, no address specific sustainable transport advice is provided to residents, but there is a link to SusTrans on Coastline's website which provides residents with information on local cycling routes. As a result of Coastline's sustainable transport interventions, the increased likelihood of residents using sustainable transport is 1.53%. Below you can see how your performance compares to other SHIFT landlords.



Recommended improvements:

- Provide address specific transport advice via new tenancy packs for example and include the service provided and proximity of public transport links to the specific address.
- Include data on sustainable transport in the asset management database (e.g., cycle storage provision or EV charge points). This will allow easier and faster reporting on this issue. You can ask your SHIFT assessor for a list of which UPRNs we think may have cycle storage to use as a first pass. Liaise with your new build department so they can also provide this data ready to go into the asset management database.
- Work with new build colleagues to ensure that cycle storage is included at all new builds will aid the transition to more sustainable modes of transport. New building regulations require EV charge points.
- Download our EV Roundtable summary from here: https://shiftenvironment.co.uk/publications/ . This details national EV targets and recent experience from other landlords on what works well.
- Consider installing EV charging points at places where staff can use them during the day, but out of hours, these can be used by residents (for a fee). There is potential that local councils will have initiatives to support businesses and organisations to invest as part of local transport plans.
- Encourage residents to engage in cycle training and workshops. This may offer an opportunity to provide additional face-to-face travel advice. It is also an opportunity for community outreach work, improving residents' experience.
- Facilitate partnering to integrate car clubs, cycle hire and shared transport facilities.
- Promote the health and wellbeing benefits of improved active modes of transport. Consider asking for feedback on resident satisfaction surveys about the facilities you provide for active modes of transport.

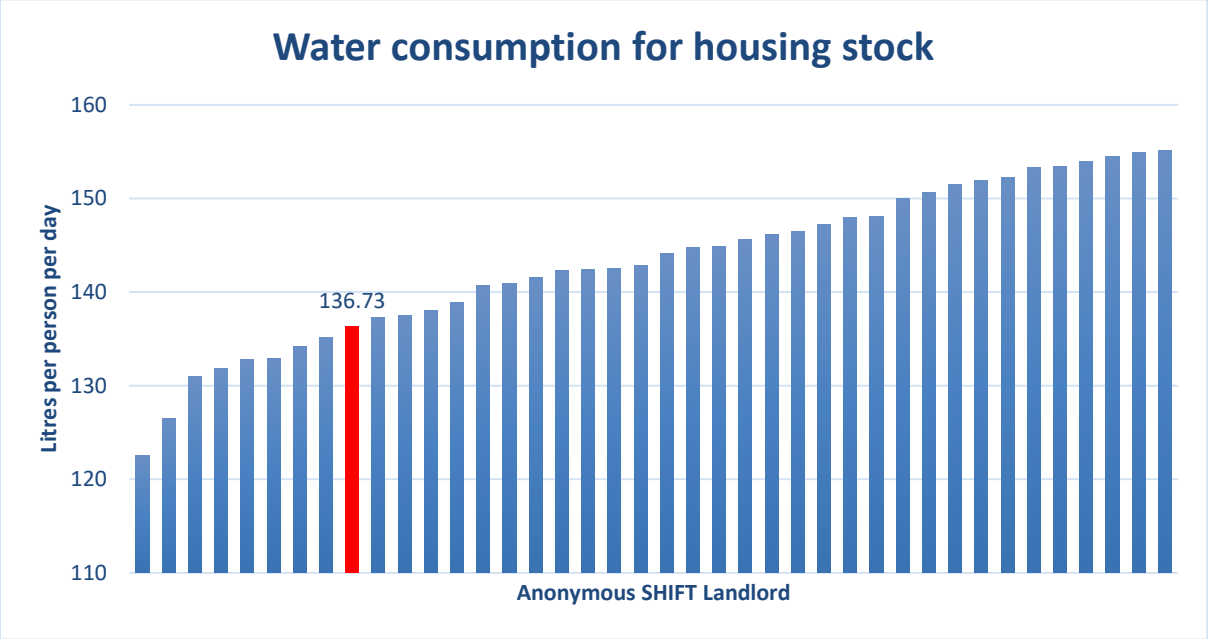
Water

At the time of writing Environment Agency research suggests that UK domestic water efficiency should be 130 litres per person per day (lpd) by 2030 to adapt to forthcoming climate change. However, new national strategies are emerging which may mean this target is reduced to 110 lpd[3]. Water efficiency saves residents money too if they are on meters and if hot water is used efficiently.

As with most landlords no complete assessment has been made of water efficiency in Coastline's stock. Therefore, the SHIFT water efficiency estimator tool has been used. The estimator uses build age data to identify the likely water efficiency measures in Coastline's stock. This estimated 136.73 litres per person per day (lpd). Coastline engaged 50 residents on water efficiency by handing out 104 water saving devices at a community day. Therefore, 1.06%

[3] SHIFT: water efficiency targets

of residents are considered engaged on water efficiency. Coastline do have a link on their website to an article titled 'water saving tips'; however the link has expired. Were the link to be active, 100% of residents would have been considered passively engaged. In the previous reporting period Coastline announced a partnership with Cenergist to help save customers water and money, however, no data on the number of residents engaged was provided. There has been no update on the progress of this partnership in this reporting period and therefore it has not been taken into consideration for scoring this year.



Recommended improvements:

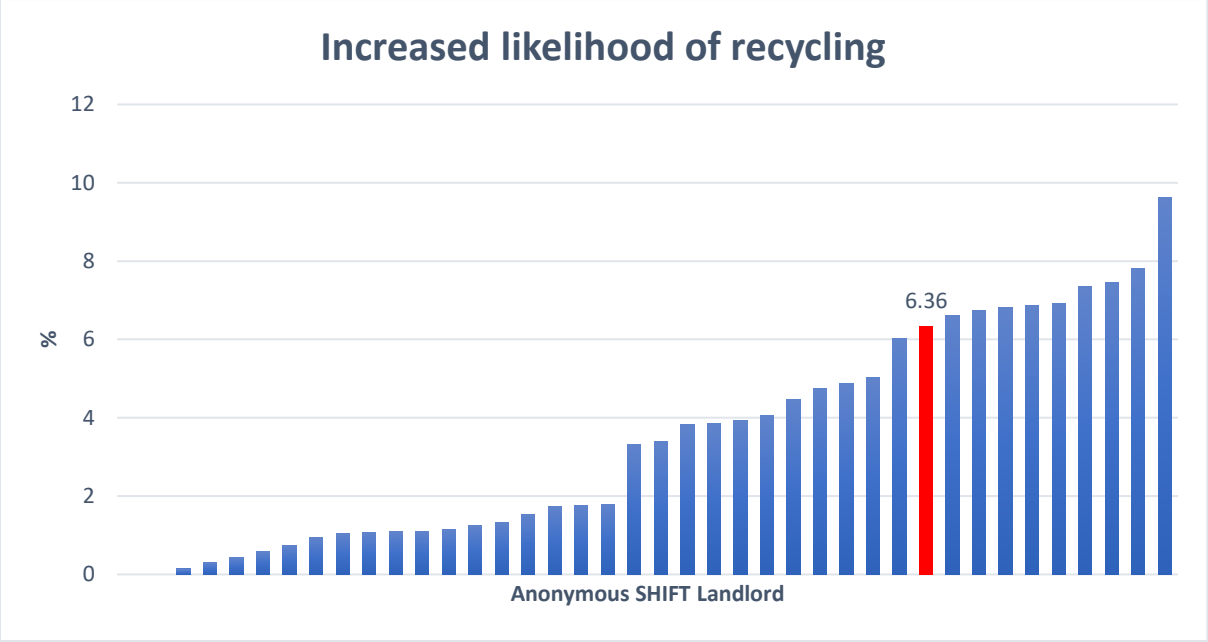
- Include water efficient fitting information on your asset management system.
- Ask your SHIFT assessor for our assumptions about what homes may have water efficient fittings. SHIFT can provide a first pass likelihood of certain features to help populate your database, but stock condition surveys can confirm these details.
- Incorporate the recording of water efficiency measures in stock condition surveys. This will allow upgrade plans to be developed.
- Ensure that water efficient showers are installed at new build and at shower upgrades. These reduce the amount of steam in bathrooms which may reduce the risk of mould growth.
- Develop a formalised water efficient specification for kitchen and bathrooms replacements which prompts installation of water meters and other components when plumbing work is undertaken at a home or during a void period for example.
- Consider engaging with your local water supplier as some landlords have found that their local water companies are willing to provide free water efficiency devices, home visits and other engagement work with your residents.
- Encourage residents to use water efficient appliances.

- Ensure effective use of installed water-efficiency information. Liaise with installers and residents to ensure this happens. For all installations, you may wish to make providing advice to residents a standard for all work completed on the homes, ensuring there is monitoring of these conversations will help with future SHIFT assessments.
- Secure water efficient fittings data from your new build colleagues and incorporate this in your databases.

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 9% of Coastline's homes have internal recycle bins fitted using build date assumptions. 100% of residents are passively engaged on domestic and bulky waste recycling through the 'ways to be greener' article on their website. A further 2.13% of residents were actively engaged on domestic and bulky waste recycling through Coastline hosting community and neighbourhood waste amnesty days. Based on this engagement and homes with internal recycling bins fitted, a 6.36% increase in the likelihood of residents diverting waste from landfill is estimated.



Recommended improvements:

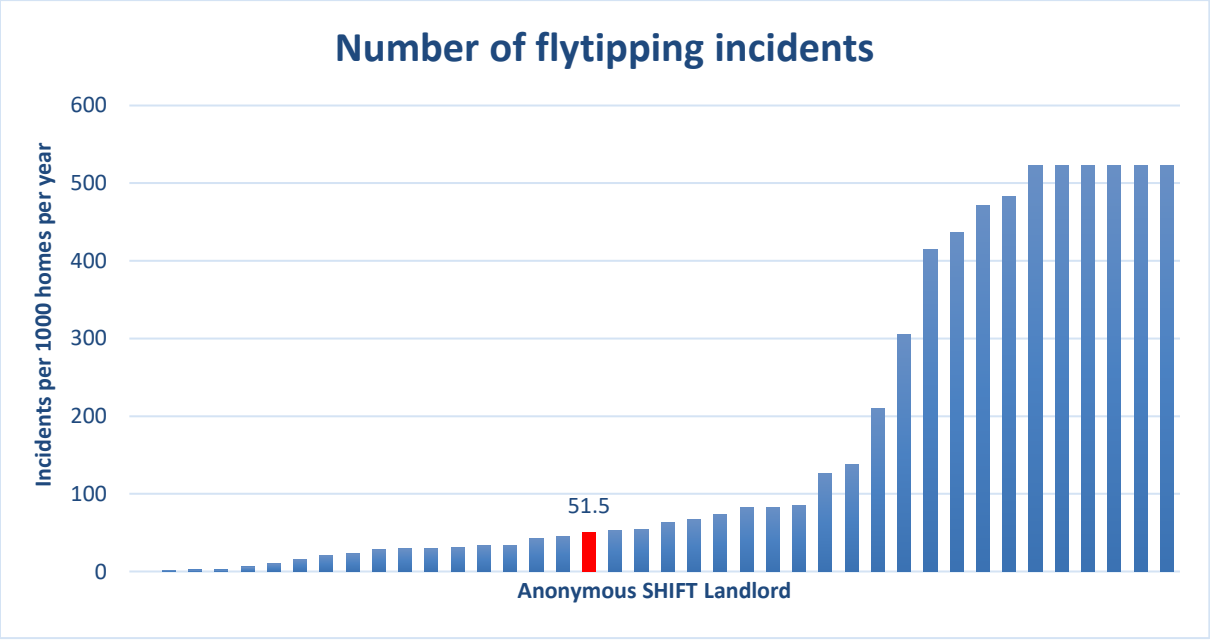
- Consider installing internal recycling bins into kitchen refurbishment works for resident recycling ease.

- Include a new field on asset management databases to show recycling facilities. This will make easier environmental reporting. Ask your SHIFT assessor for a list of UPRNs that we believe may have internal recycling bins.
- Liaise with new builds colleagues and ensure that all homes have internal recycling facilities and ensure this remains a standard in all new builds. Ensure this data is transferred to asset management database.
- Ensure active engagement with residents on waste management. Top performing landlords in this area make regular efforts to engage with resident groups, caretakers, and estate teams to keep track of waste issues throughout your stock. Consider arranging a quarterly estate clean up involving residents and staff.
- Engage with recycling and reuse community schemes. For example, hosting second hand/exchange events for household items. Another example is working with upcycling groups/community projects to fix household items and support a circular economy.
- Make residents aware of the local arrangements for bulky waste collection.
- Consider 'skip days' where landlords provide free bulky waste collection are a popular way for landlords to reduce fly tipping issues and offer an opportunity to engage directly with residents on waste issues their estate may be facing.

Fly tipping

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

242 flytipping incidents were recorded by Coastline over the reporting period, equating to 51.5 per 1000 homes.



Recommended improvements:

- Signpost residents to correct ways to deal with waste and contextualise the fly tipping clearing costs through comparison a with number of home improvements that could be completed instead. Providing clear information about sustainability and green pages on your website will support this.
- Consider innovative ways of tackling flytipping - SHIFT landlords have found that leaving notices on fly tipped waste, to show that you are investigating the source, results in local residents coming forward with information.
- Improve facilities to discourage flytipping - increasing communal bin capacity, install CCTV in fly tipping hotspots, and purchasing internal recycle bins for residents.

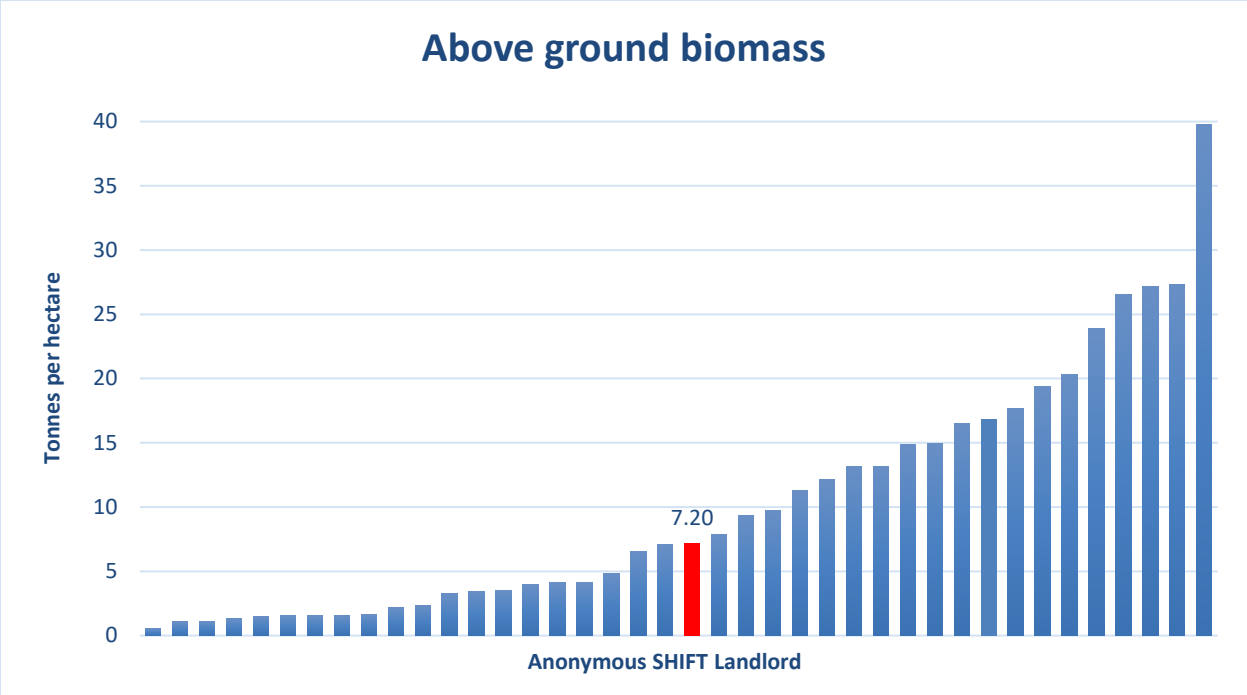
Biodiversity and green spaces

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.

In addition to the data provided in SHIFT 2022 for communal area green spaces and trees, SHIFT defaults were included to estimate private garden biodiversity. This is based on the number of houses and flats indicated in Coastlines asset data. In total, 499.21 tonnes of above ground biomass, and 7.20 tonnes of biomass per hectare was estimated



Recommended improvements:

- Ensure databases contain data on the amount of land owned. This should include the land occupied by houses and the gardens, blocks of flats and communal areas. It should also include roads and other land owned by the landlord.
- Consider planting higher density biomass areas in existing green spaces.
- As well as knowing the amount of land you own, ensure you know vegetation types. It may be possible to record this on asset management databases to allow easier biodiversity reporting in future. If you do not have this information, contact your SHIFT assessor for some first pass estimates of garden sizes and typical vegetation types.
- Consider including in asset management databases the land area and vegetation types for each UPRN. Special consideration will need to be given for blocks of flats.
- Consider allowing 'wilder' gardens and communal spaces that do not require as much maintenance and can improve biodiversity. Mown areas are common in most communal spaces but require time, money and carbon emissions to maintain.
- Ensure crown spread data is included when conducting tree surveys. It is also possible that, when conducting these surveys, it be assessed if denser tree planting can occur in these areas.
- Liaise with new build colleagues to ensure that they maximise biodiversity within their schemes. The Social Housing White Paper makes considerable mention of improving green space provision for example and biodiversity offsetting has been introduced for new build.

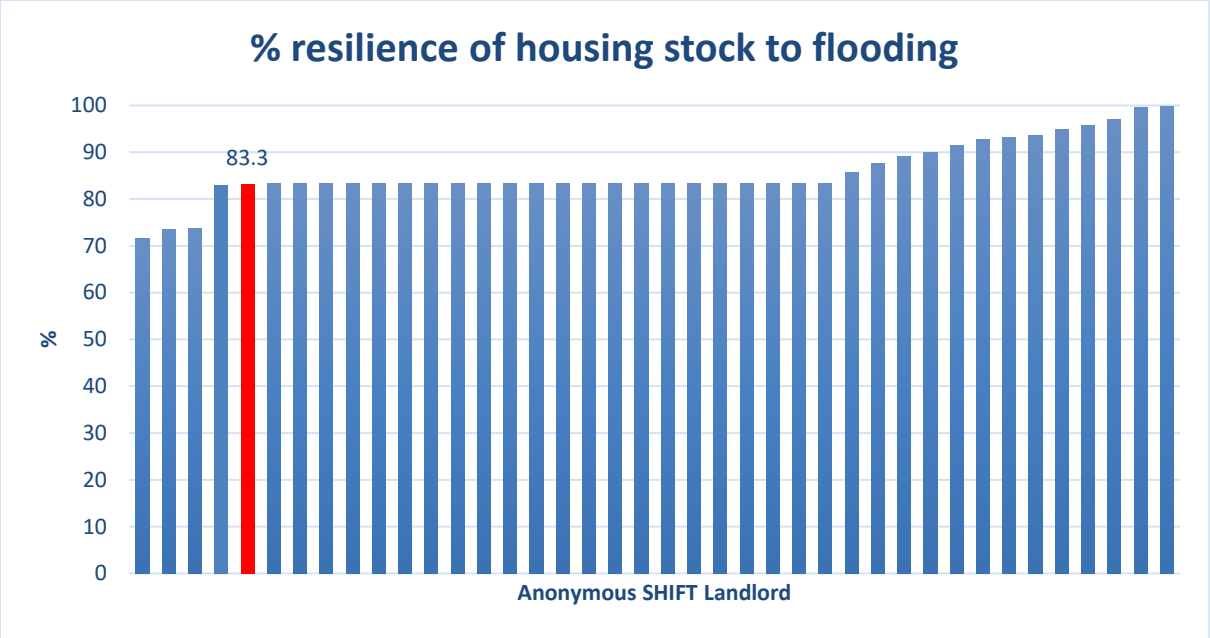
- Consider innovative ways to introduce more biodiversity. Above ground biomass can be increased by the addition of green roofs, green walls. Street trees can increase sequestration potential, air quality, water management, and heat regulation. Sustainable Urban Drainage (SuDS) and other biodiversity enhancements are encouraged for new builds. Consider these and additional enhancement potential for supporting broader biodiversity and amenity aims.
- Work with local community groups to enhance biodiversity features across the organisation. Consider whether a biodiversity fund for residents to do wildflower planting could be achieved by partnering with contractors. This will provide good examples for their Corporate Social Responsibility and help you convert more of their underutilised green/grey spaces into high biodiversity areas. Creating community gardens, tree planting and introducing wildflower planters are potential projects.

Homes adapted to risk of flooding

Met Office projections indicate more flood events. The Environment Agency states 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 which 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.

Coastline provided a flood risk map for the River Cober flood plain which includes some properties they own. However, Coastline do not currently have a flood risk assessment for their housing stock down to UPRN level. In the absence of fluvial and surface water flood risk assessments, using Environment Agency research on flood risk in England, indicates that 1 in 6 properties are at risk of flooding, it is considered 83.33% of homes are at low risk to flooding.



Recommended improvements:

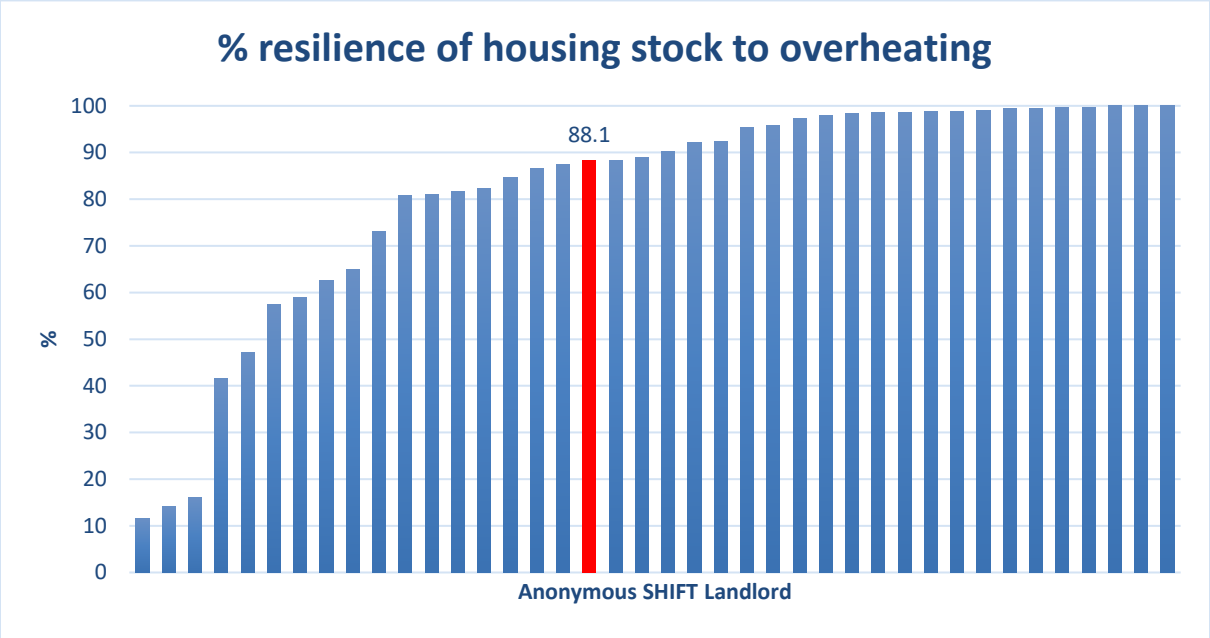
- Ensure future flood risk assessments are assessed at least every 3 years. Use the Environment Agency's long term projection maps which are updated regularly.
- Include both fluvial and surface water run-off.
- Include flood risk levels to UPRN level in asset management databases for easier management and reporting.
- For homes in medium or high-risk areas devise a risk management approach so that these homes can be protected and/or upgraded before, during and after a flood event or warning. Ask your SHIFT assessor for our climate resilience assessment methodology which describes such a system and was devised with SHIFT clients.
- Remain vigilant for funding opportunities through local government and other agencies for flood mitigation works.
- Confirm with new build colleagues that all new homes are low flood risk, and that relevant flood risk assessments and subsequent mitigation works are undertaken. Transfer this data onto asset management systems.
- Ensure good quality green areas, especially in urban areas, to increase flood attenuation.

Homes adapted to risk of 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 Coastline's housing stock. It is estimated that 88.10% of Coastline's homes are at low risk of overheating.



Recommended improvements:

- Ensure any overheating risk assessments cover the risk factors addressed in the SHIFT overheating estimator tool.
- Consider including overheating data in asset management systems. First pass assumptions of risk factors for each address are available from your SHIFT assessor to help you populate your database. In future surveys, you may replace the assumptions with better data. For example, SHIFT assumptions on whether or not a flat is a single aspect or not may require updating.
- Liaise with new build colleagues to ensure that all new homes address all risk factors and have suitable measures to prevent overheating if necessary. Ensure this data is entered into asset management database.
- Incorporating assessments of risk factors, e.g., single aspect, shading facilities, ability to open windows etc, within stock condition surveys will help identify higher risk properties and allow for adaption measures.
- For homes identified at high risk, and have condensation and mould issues, install adequate ventilation measures which will go some way to reducing both risks.

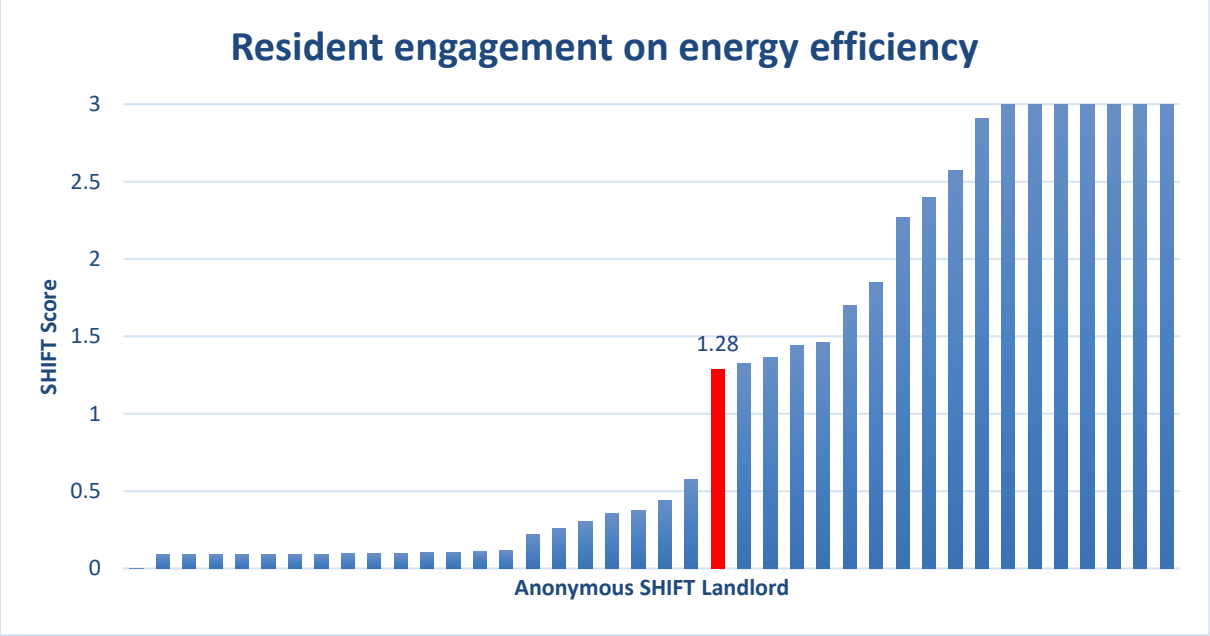
- Ensure good quality green areas to increase shading and reduce the urban heat island effect.
- For homes in medium or high-risk areas, devise a risk management approach so that these homes can be protected and/or upgraded before, during and after a heat wave event or warning. Ask your SHIFT assessor for our climate resilience assessment methodology which describes such a system and was devised with SHIFT clients.

Resident engagement

Resident engagement

Resident engagement is an important way of informing residents about how they can make a difference and empowering them 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 Coastline's website. Their 'Ways to be greener' webpage provides a link to the Energy Savings Trust 'quick tips to save energy'. While it is important for residents have access to this information, it is difficult to monitor the effectiveness/interaction of this engagement. It is considered that more active engagement with residents can have the greatest impact. Currently, 13.85% of residents are considered actively engaged on energy efficiency. Coastline consulted with 75 residents on the installation of a geothermal ground source heat pump, during their 'Heat the Streets' initiative. A further 75 residents had 'Switchee' smart thermostats installed at their homes to help monitor energy use and reduce costs. These two initiatives, alongside household visits regarding a social housing decarbonisation project and income support management resulted in a SHIFT score of 1.28 out of 3 for performance on resident engagement on energy efficiency. This is benchmarked against other SHIFT landlords below.



Recommended improvements:

- Create environmental pages or similar on your website which will be an easy way to refer residents to top tips and also for staff to refer to. Ways to use heating systems efficiently should be included, especially for newer types of systems. This may also be an ideal space to advise on water saving, waste recycling, adapting to climate change and sustainable transport. The pages will need to be promoted to residents to ensure engagement.
- Include energy advice in all contact with residents – gas safety checks, refurbishments, heating upgrades, rent arrears activities, new sign-ups.
- As part of procurement, you may wish to make providing advice to residents a standard requirement for any contractors carrying out work on the homes, (e.g., gas servicing). This will be particularly important as new retrofit measures be added to the homes. Ensuring that there is a record of these conversations will not only help with future SHIFT assessments, but also ensure that your organisation's expected standards are met.
- Consider developing an active engagement programme. SHIFT landlords have found this the most effective way to influence behaviour. Community engagement teams may host drop-in sessions for staff to discuss energy efficiency in homes and wider sustainability concerns with residents.
- Encourage all staff members to receive carbon literacy and sustainability training. It is hoped that they will then be able to provide sufficient advice to residents when completing other key tasks. For example, if home inspections are conducted, staff can advise residents on energy efficiency improvements in their homes.
- When an energy efficiency visit occurs, attempt to undertake small works such as installing radiator reflectors, hot water saving devices and draught proofing.
- When a new heating system is installed, you should also provide a full tutorial for the tenant as complaints can often be raised about bills going up after a new system goes in – potentially you could introduce an option where tenants with new heating systems can report energy use within the first 12 months of usage to you. If bills seem significantly higher than expected this could trigger a request to visit and discuss heating use.

New build

It is critically important to ensure that homes built now are 100% sustainable. Retrofitting sub-standard homes at a later date incurs higher whole life costs for the landlord. Welsh landlords have done considerable research on this due to their unique funding system. They find that the uplift to build to EPC A is far cheaper than the costs to upgrade the same home to net zero at a later stage. 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. Ask your SHIFT assessor for effective ways on carrying out Post-Occupancy Evaluation.

Figures for this assessment were provided by Coastline's Commercial and Technical Manager. It indicated that 0% of homes achieved an EPC A (SAP 92+), and 26.18% a high EPC B (SAP 86-91). 65.97% of homes were rated as a low EPC B (SAP 81-85), and 7.85% of homes were rated as an EPC C (SAP 69-80). It is highly recommended that Coastline builds more homes to an EPC Grade A (SAP 92+ minimum). Coastline recognise 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.

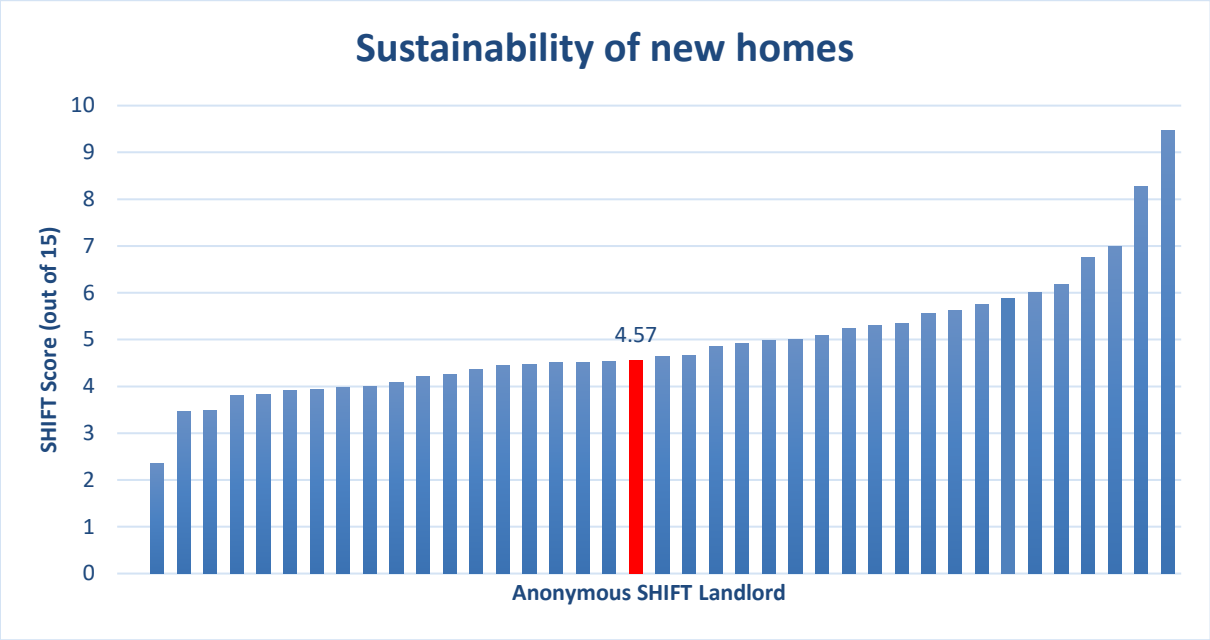
Coastline provided figures for the following sustainability features:

- Internal recycling bins: 0%
- Low risk of flooding: 100%
- Low risk of overheating: 100%
- Sufficient biomass/biodiversity: 0%
- Cycle storage: 0%
- Responsibly sourced materials: 0%

No evidence was provided to support this. Coastline stated they employ two Commercial and Technical managers in addition to engaging with Employer's Agents. However, the only sustainability features assessed were flooding and overheating which are typically assessed during the planning stage. However, Coastline have not provided any documentation to evidence that they carry out post-occupancy verification of these sustainability features. Based on this information it is considered 100% of homes have no post-occupancy verification.

Coastline were not able to provide detail regarding the embodied carbon of their new build homes, therefore the SHIFT default of 35,196 kg CO_2e per home has been applied to estimate a total of 6,722.44 tonnes CO_2e for the 191 homes built.

Using the SHIFT calculator for new build and the data above, the sustainability score for Coastline's new build homes is 4.57 out of 15.



Recommended improvements:

- Create your own design specification - picture how you want your homes to perform by 2050. Some SHIFT landlords are developing their own technical specifications for new developments which will consider sustainable building, heating, insulation, ventilation, travel, greenspace, waste, responsible materials and adaptation to flooding and overheating.
- Ensure new homes do not have fossil fuel heating and, ideally, are EPC A. This is part of the overall pathway to net-zero homes for the UK. Reducing demand for energy from homes also saves money for residents. Any homes that have fossil fuels in now, will have to be retrofitted to non-fossil fuel heating. From an organizational point of view, it is much cheaper to ensure that a new build is built future-proof, than for asset colleagues to retrofit these heating systems.
- Consider MVHR space heating and heat pump water heating as a design.
- As well as ensuring compliance with the new Part O[4] for overheating risk reduction, consider also assessing the following risk factors and ensuring that if 3 or more risk factors exist, that there are mitigation measures in place (your SHIFT assessor can help advise on these):
    1. Hot region – southern areas are more likely to experience heat waves

[4] SHIFT: Phew! No more scorchers! New overheating regulations for new build homes

2. Flat/maisonnette – less opportunity to ventilate correctly
3. Single aspect flat/maisonette – no opportunity for cross-ventilation
4. Urban Heat Island – areas with a high density of buildings and other infrastructure compound the heat experienced during heat waves
5. Communal heating – the pipework from these systems often run through corridors and homes and heat leaks from them into living spaces.
6. Insulation levels – new builds have high insulation levels so correct ventilation for overheating risk reduction is vital

- 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. This will send a very clear message to contractors that sustainability is key for you and eventually the supply chain will respond to yours and others' requests. You may wish to ensure that it is a contractual requirement to answer this survey – this will help gain responses from contractors. At the very least ask the following:
    - Embodied CO2 of the materials used – this is a significant part of your organisation's carbon footprint and ESG investors are increasingly interested in this data.
    - Waste – this is normally straightforward for contractors to collect
    - Responsible materials – from an ethical point of view your organisation would not want to be associated with irresponsibly sourced materials (e.g. manufactured using slave labour, or ill-managed environmental protection measures). The aim is to get a meaningful metric, but this is not normally done. Our guide on responsible sourcing provides some excellent tips to manage this[5].
- Share data with your asset management colleagues – often data collected and/or known at build stage is very difficult to get hold of but is crucial for long term sustainable management of assets. The difficulty is compounded by the fact that very few asset management systems have all the data fields necessary to store the data, so providing it in some kind of spreadsheet and consistent format will be highly useful to your organsation's long term sustainable management. We have provided a list of key data that would be highly useful to your asset management colleagues[6].
- Ensure that third party checks are carried out *post build/occupancy* to confirm that sustainability measures are in place, working and usable by occupants. This will tackle the known performance gap. At best these checks will confirm that your build quality is good. At worst the check will highlight areas that need rectifying and that will prevent further issues recurring. There is no formal or official way of doing this, but for the best chance of avoiding the performance gap, we suggest the following:

[5] SHIFT: Publications

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

- Ensure that those doing the checks are independent from the new build department. For example, someone from assets could be considered independent, as it is in their best interest to ensure sustainable new build homes are handed over, to reduce the cost of retrofitting sustainability features. Where external expertise is appropriate (for example ecologists), this also fulfills the requirement for independent verification.
- New Build and Asset teams should not be overburdened by post-occupancy verification. Select only a sample of homes (one from each developer for example) to carry out checks.
- Checks should cover:
    - Energy – this can often go wrong[7]. Ensure that energy efficiency items are in place. We have experience of missing loft insulation communal heating systems using double the anticipated energy. Energy monitoring may be part of this check.
    - Water – measure flow rates and capacities of fittings. We have seen inefficient fittings in new homes, even though they are now a building regulation requirement.
    - Biodiversity and green spaces – now part of Biodiversity Net Gain. Ensure planting is in place or contracted to be.
    - Internal waste storage – this helps residents contribute to local authority recycling schemes.
    - Flood risk – check against both types of EA flood risk map and if a risk is identified ensure that responsive measures are in place and working.
    - Overheating risk – ensure ventilation and external shading is in place for homes identified as at risk.
    - Cycle storage – ensure this is in place, adequately sized, secure and with easy access to a highway. Modal shift is an essential part of the UK's pathway to net zero transport.
    - Ensure EV chargers are in place and working. See our publication[8].
    - Responsibly sourced materials – this may be a separate audit. See notes above.

[7] SHIFT: A Horror Story – Poor environmental performance in new builds

[8] SHIFT: Publications

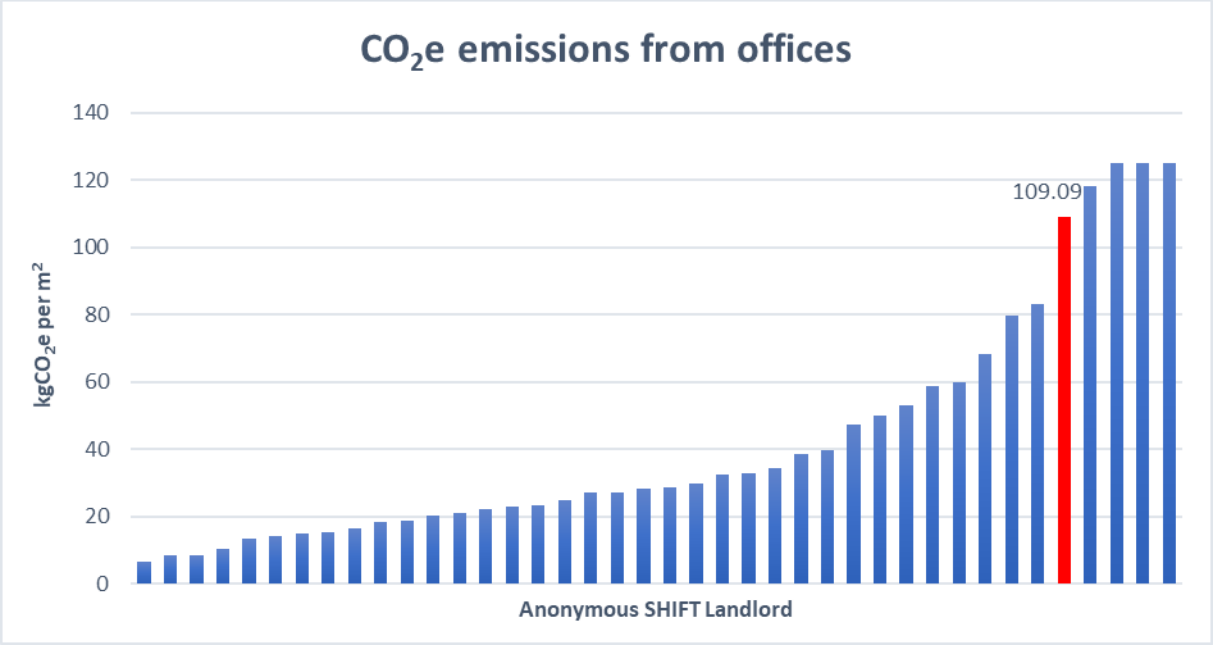
Offices & Operations

Offices and operations have a minor impact on the organisation's overall environmental performance but there are several advantages to focussing 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.

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.

Coastline provided updated energy data for their head office located at Barncoose Gateway Park. Office emissions have been calculated using the Defra carbon conversion factors. In total, it was estimated that 53.67 tonnes of CO_2e were emitted in the assessment period which equates to 109.09 kg CO_2e per m^2 of office space. Coastline have had a relatively high intensity ratio for the last couple of years, and this has increased since last year's assessment. The number of full time, office based employee's has doubled since last year and could be a possible reason for this increase. However, Coastline should investigate this further and consider energy reducing measures at their office.



Recommended improvements:

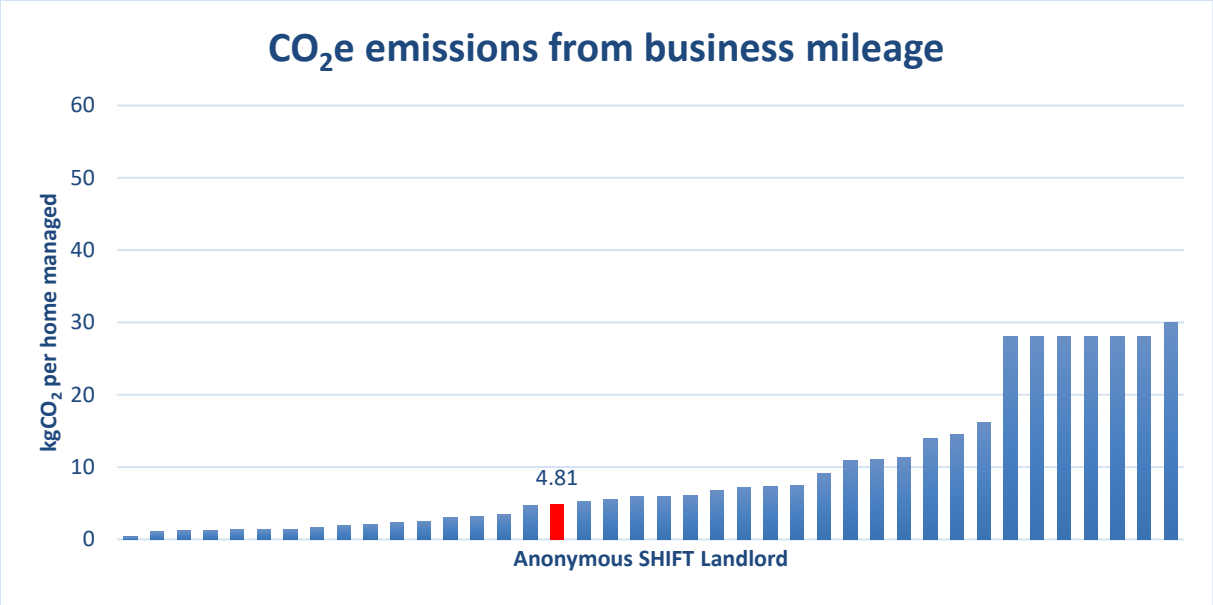
- Devise plans to get to reduce demand – this can be by commissioning an EPC Recommendations Report and/or an ESOS[9] style review of each office. In addition, devise plans to transition to non-fossil fuel heating. This will most likely be electricity but biomass and/or heat networks are also possible.
- Consider the installation of solar PV and battery storage at large offices. Switching to LED lighting will also help reduce consumption.
- Encourage staff to carry out good housekeeping such as turning off lights and computers. It is important that energy demand is reduced to accompany the renewable energy provision.

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).

The most recent business mileage data received from Coastline was for the current reporting period. This was not broken down into fuel type, therefore the Defra conversion factor for 'unknown' fuel type was applied. If Coastline introduce different mileage rates for different fuel types (e.g. EVs) in the future, they should ensure mileage is included in a separate column for ease of reporting. Based on the data provided, it is estimated that 22.59 tonnes CO_2e or 4.81 kg CO_2e per home managed was emitted through business travel.

[9] SHIFT ESOS reporting



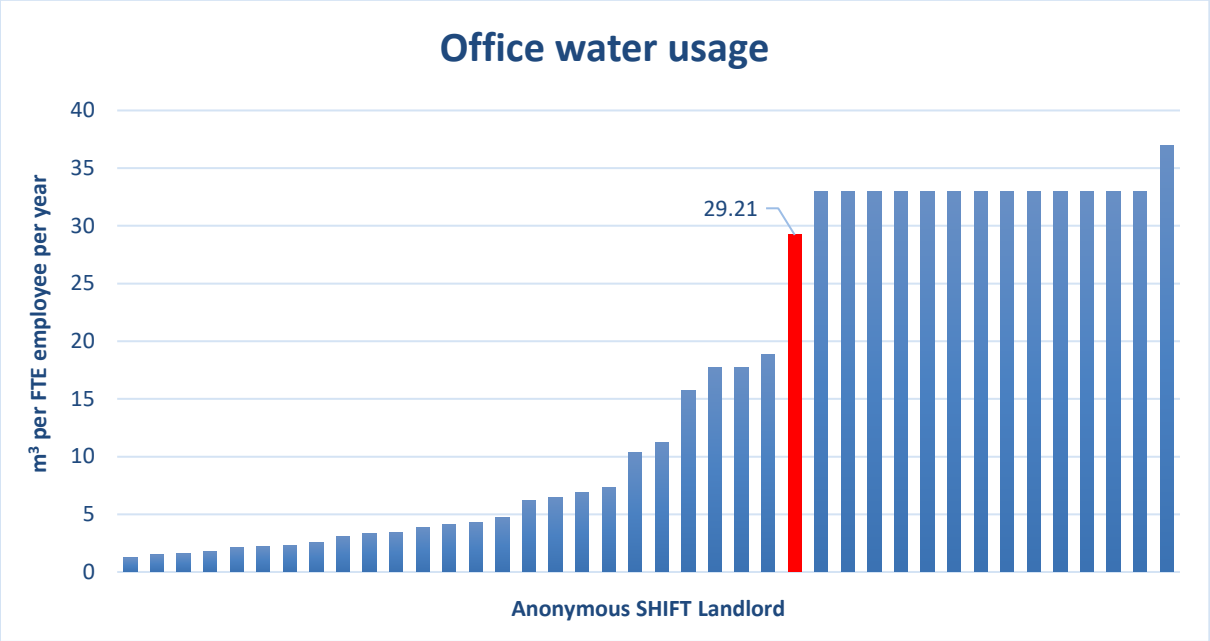
Recommended improvements:

- Document the split of diesel, petrol or any hybrid/electric vehicle use so the appropriate conversion factor can be used for calculating carbon emissions.
- Consider different budget codes for petrol/diesel/hybrid. Review this regularly to ensure that only essential journeys are taking place. This may also emphasise the emissions implications of each form transport.
- Setting mileage targets for teams and individual drivers, not to prevent staff from doing their jobs, but to help them work in a cost-effective and environmentally aware way.
- 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[10].
- Incentivise the use of other modes of transport through engagement with cycle to work schemes or salary sacrifice car schemes to encourage more fuel-efficient or electric vehicle use.

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

Water

Coastline stated their office water use, however no primary data was provided which could be verified at the Barncoose Gateway Park office. Therefore, the SHIFT default of 29.2119 m^3/employee was used. Coastline reported 100 full time employees at the office, equating to 2921.19m^3 of office water usage in the reporting period.



Recommended improvements:

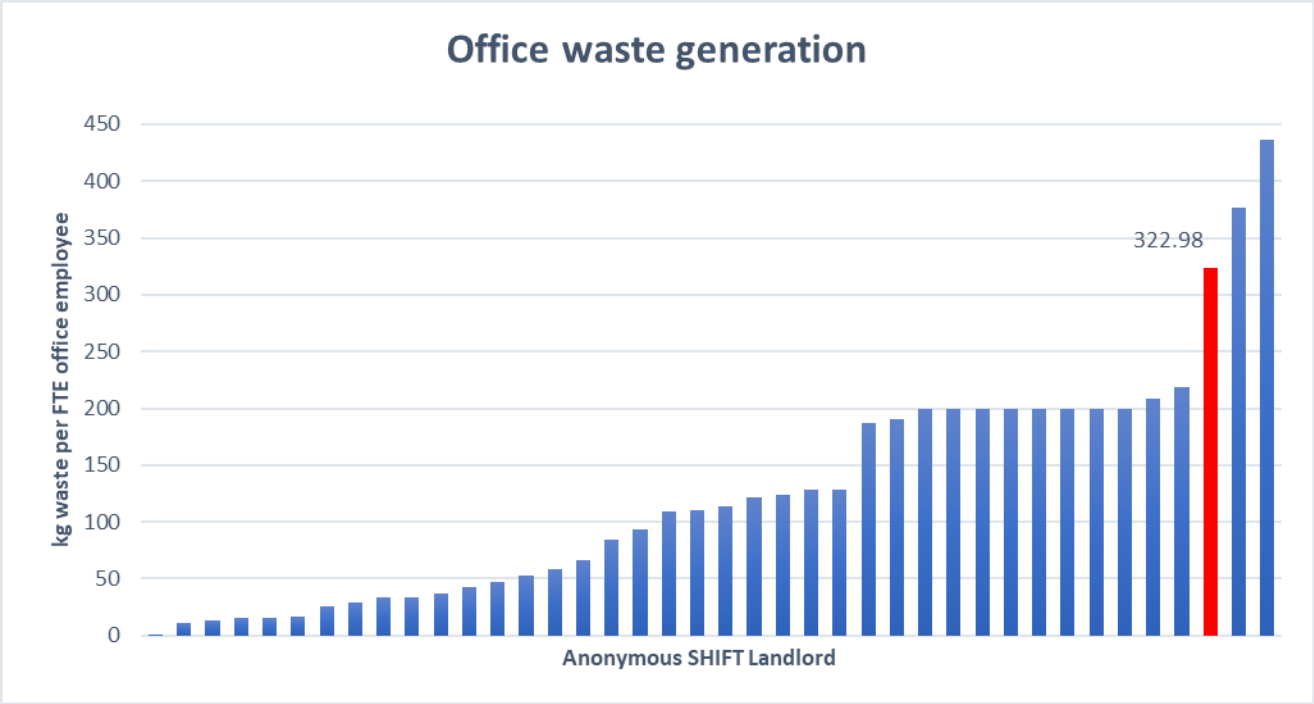
- Consider setting up a quarterly utility reporting system for your offices to keep a consistent track of data. This will also help identify leaks at an early stage.
- Carry out a water audit as this could identify further environmental and cost savings.
- Engage staff on water efficiency initiatives and water saving measures. Incorporating these into water savings policies and procedures e.g., ensuring the dishwasher is full before turning it on.
- Incorporate a 'water champion' to regularly check meters and monitor water use into an organisational role.

Waste

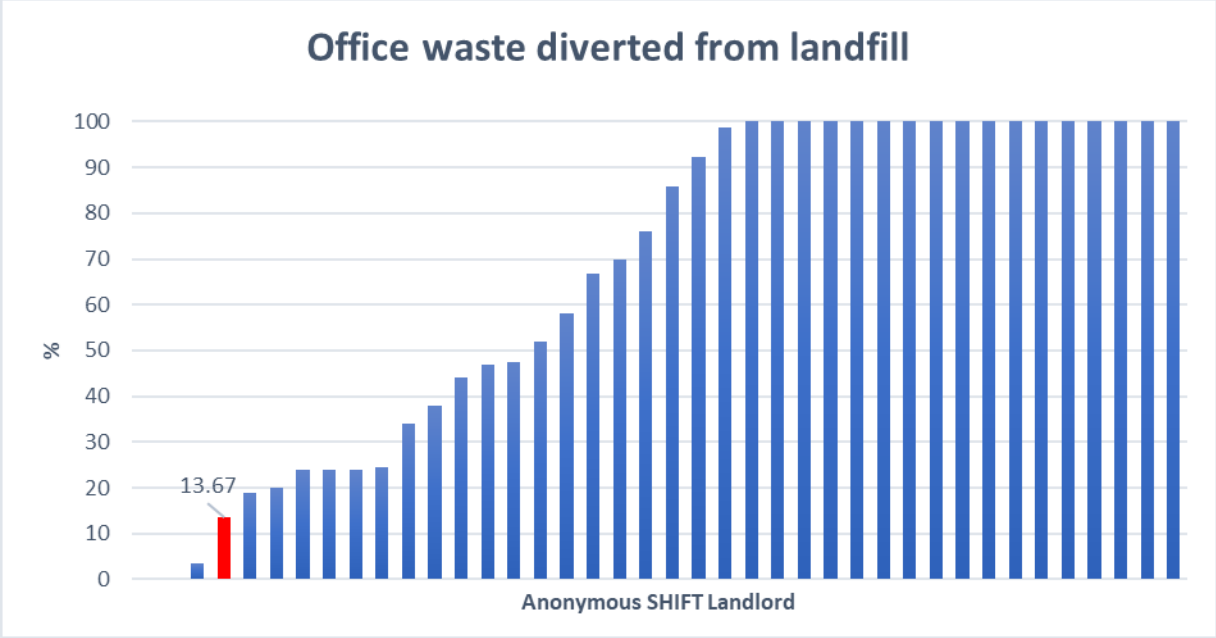
As interest rises in the circular economy, alongside an awareness of the damaging impacts of plastic pollution, companies from all sectors are ramping up efforts to tackle waste. Quantifying total waste outputs and treatment is an important first step.

Coastline were able to collect data for the waste generated at the offices, however the waste report from Suez identifies 5 sites where waste was collected but doesn't specify how much of this is from

Barncoose Gateway Park. For this reason, the site with the most waste generated was chosen as this is likely to be the main office, it also had the lowest % of waste recycled. A total of 32.30 tonnes of waste was collected. This equates to 322.98 kg waste/employee.



Waste diversion rates from landfill for the site identified in the waste report provided is reported at 13.67%.



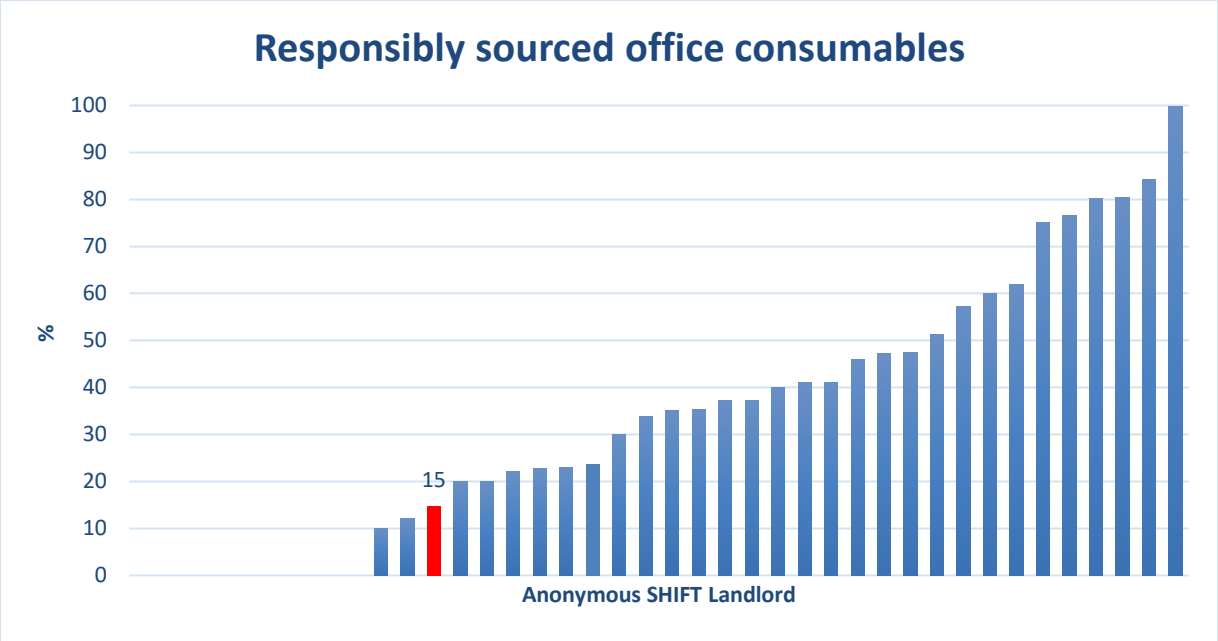
Recommended improvements:

- Coastline should engage with their waste disposal contractor to provide them with a site-specific breakdown of the waste collected at their offices and how much of this is diverted from landfill.
- Engage with your waste contractor to provide a breakdown of waste flows (landfill, recycling) as a minimum requirement.
- Develop your own waste monitoring system to begin developing waste reduction targets across various teams.
- Review in-house processes with the aim of reducing or even eradicating the necessity for printing – many processes are or can be electronic now.
- Provide clearly labelled/information on bins to encourage the correct recycling, making it easy for staff members and visitors.

Office consumables

Coastline were unable to obtain data for their responsibly sourced office consumables. Ideally, this would take the form of a spend breakdown from an office supplier (called a 'green switch' report or similar). However, it was discussed during the data review that office supplies are bought on an ad-hoc basis due to cost. Whilst this is understandable from a financial perspective, Coastline cannot guarantee responsibly sourced products are purchased consistently where possible.

Coastline did provide a report on the environmental impact of the paper purchased for use at their offices, but this did not indicate that paper was responsibly sourced by their supplier, for example FSC/PEFC certified. For this reason, 0% of paper is considered responsibly sourced. Coastline provided photos of tea, milk and sugar all of which had either Rainforest Alliance/Fairtrade labelling. In the absence of a more detailed report, it is considered 75% of staff amenities are responsibly sourced. Using the photos provided, the SHIFT office consumables calculator estimates 15% of all office consumables are responsibly sourced.



Recommended improvements:

- Engage your supply chain/employees on responsibly sourced materials. Certain suppliers are committed to providing easily identifiable green alternatives through clear labelling when ordering products. They can also provide a breakdown of spend for green/eco-label purchased products compared to those that are not. Increasing the use of these products over the next few years should be incorporated into your strategy. You can also request this from their current provider or consider a switch of suppliers if it is financially suitable.

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.

Coastline analysed the Environment Agency's Flood Risk maps and identified that the head office at Barncoose Gateway Park is at low risk of flooding.

As reported for SHIFT 2023, Coastline's head office had been recently refurbished, and overheating was a consideration throughout. Measures to mitigate overheating include making the building more open plan, adding an additional door, and a sliding wall to allow better cross ventilation. Additional ventilation systems were installed including air conditioning. Reflective films were also installed on windows to reduce solar gain in the first instance.

Recommended improvements:

- Consider if additional passive measures for mitigating overheating risk could be included (e.g., the addition of Brise soleil, additional film glazing on windows).
- Consider if additional shading is also possible through urban greening. Street trees are known to contribute to a reduction in air temperatures. Consider the possibility of intensifying tree planting around the office space.
- If air conditioning is installed ensure it is the most efficient available, low-emission and that it is well maintained.
- Make considerations for staff overheating on particularly hot days. Consider providing refillable water bottles for staff to stay hydrated and consider the potential for flexibility of working hours.
- Continue to monitor Environment Agency flood maps, as a minimum every three years, and install adequate protection, if necessary, especially for surface water run-off which is often neglected and yet projected to increase.

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.

Coastline's environmental strategy hasn't been updated since last year's report and therefore the comments and recommendations from then remain valid. Despite the continued absence of SMART targets in the Environmental Strategy, Coastline's Head of Innovation, Sustainability, and Procurement provided a progress update during the reporting period on some sustainability issues. This included a survey to gauge employees' interest in purchasing EVs, helping Coastline to plan the installation of EV charging points at corporate buildings to promote greener transportation options. Additionally, Coastline shared their 'Group Procurement Strategy' with SHIFT, which focuses on responsibly sourced, sustainable materials. However, this document is not publicly available and lacks clear SMART targets. It is recommended that Coastline develop annual KPIs and SMART targets that cover all SHIFT sustainability issues to track progress from now until the long-term goals are met. Nonetheless, SMART targets are outlined for biodiversity and energy efficiency, and points have been awarded in these areas.

Recommended improvements:

- Integrate KPIs into your strategy so that all areas of sustainability that are covered by SHIFT are included. Particularly this should include SMART targets on climate resilience, sustainable materials, water efficiency, waste management, flytipping and green transport.
- Continue to monitor the progress of existing actions within the strategy. Use the findings from this SHIFT assessment to establish new measurable long-term and interim targets. Interim targets may assist with keeping progress on track.
- Communicate targets across the organisation to staff and residents, accompanied by educational support. This will ensure that people understand the importance of these strategies and the clear commitment to meeting net zero targets. It is hoped that those who understand the importance of these environmental targets will be more willing to contribute and make changes towards their attainment.
- Consider 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.
- Further advice on developing an environmental strategy can be found by downloading Developing an environmental strategy for social landlords from here: https://shiftenvironment.co.uk/publications/
- When updating and/or developing strategies, consider splitting the strategy into directorate areas which will ensure that heads of service can easily identify their actions. Also make reference to the overall corporate strategy which will add strength and cohesion to the strategy.

DLO & Supply Chain

Engaging with your supply chain is a way to encourage improved environmental performance. As well as bringing an enhanced local environment for 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. We have also noticed that more clients are saying ESG investors are 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. For example, we can compare maintenance CO_2e emissions per home between organisations that do their own maintenance, with organisations that subcontract out all maintenance.

Maintenance CO_2e emissions

In-house 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.

Figures are based on survey requests to larger contractors requesting their figures for organisational emissions. Where a landlord has its own maintenance fleet, these figures are included too. This metric indicates the total CO_2e emitted due to maintenance activities.

Coastline provided the litres of fuel bought for their DLO fleet; all fuel bought was reported as diesel. In total, Coastline's fleet produced 227.53 tonnes CO_2e. Coastline were able to provide the proportion of spend on external suppliers and DLO, out of the total repairs and maintenance budget but no data was provided for carbon emissions attributable to the work these external suppliers carry out for Coastline. 44% of the maintenance and repairs budget is spent on DLO. When emissions are scaled up to represent 100% of the supply chain, this totals 517.11 tonnes CO_2e or 110.05 kg CO_2e 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.

As part of SHIFT 2024 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.

Coastline were unable to provide their DLO's waste report 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. However, Coastline were unable to provide the data to carry out this calculation, so the SHIFT default of 39 kgs per home managed has been applied. Therefore, the total embodied carbon for Coastline's DLO and supply chain has been estimated to be 183.26 tonnes CO_2e.

Recommended improvements:

- Obtaining fuel usage data for DLOs should be considered standard now.
- We recommend putting the onus of environmental reporting onto the supply chain in a proportional manner. It is likely they are already being pressured to improve environmental performance and, by adding to that pressure, landlords can encourage the supply chain to improve.
- To encourage engagement, we recommend including a clause in procurement contracts to the effect that suppliers must answer the annual environmental survey. At SHIFT we believe it is currently far too early to start imposing CO_2 targets on the supply chain, but with better data, this may become a reality in the near future.
- We recommend identifying your top suppliers via a Pareto analysis or similar. Include responsive repairs, planned maintenance and any other refurbishment suppliers. Then surveying them for scope 1 and 2 emissions plus embodied carbon of materials they have used in maintaining your homes. It may take some time for the supply chain to respond, but, at the time of writing, there are ~60 SHIFT landlords asking the supply chain for this information and there is evidence that this pressure is beginning to work.
- Benchmark contractors' carbon emissions per £1,000 contract value. 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.
- Explain to your contractors the importance of carbon emission reductions and identify if they are partaking in SECR (Streamlined Energy and Carbon Reporting). This should ensure that you receive whole business carbon emission data.
- Encourage better fuel efficiency for your own fleet - vehicle tracking, benchmarking between drivers and fuel-efficient driving training have been shown to reduce emissions.
- Consider small electric vans. Currently, these seem suitable for densely populated areas where range is not an issue. Trial the experience of drivers with various journey times and different frequencies of travel during the day. This will ensure you gather knowledge on the successes and challenges. To note, some landlords have experienced

difficulties when emergency call outs are required, and drivers were restricted by EV use. Download our publication on EV vehicles[11].

- Some landlords have arranged with suppliers to have dispersed stores of materials which means drivers do not have to waste time/fuel queuing at central depots.
- Consider using AI to analyse purchases and assess embodied CO2e emissions in the supply chain[12].

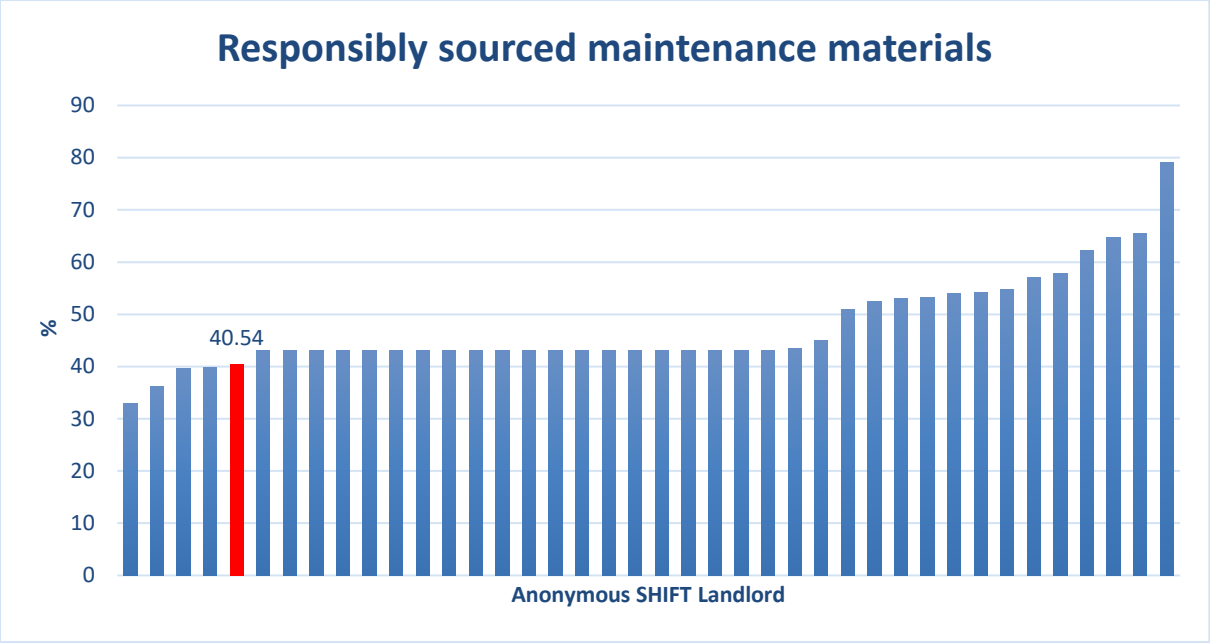
Responsibly sourced maintenance materials

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.

Coastline were able to provide Bradfords' ESG report, who are their second largest supplier. Bradfords supplies Coastline with FSC/PEFC certified timber and are also ISO14001 accredited. Bradfords' ESG report includes a foreword from the director and CEO, outlining their commitment to responsibly sourced products. Bradfords' target for 2024 is that 100% of suppliers will be assessed for responsible sourcing, however there is no data in the report which supports this and therefore cannot be verified. As Bradfords' have ISO140001 and do outline their commitment to responsible sourcing in the documents provided, the SHIFT default of 40.54% has been given. This is taken as representative of the remaining supply chain. This figure may reduce in future as responsible sourcing data improves within the sector.

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

[12] SHIFT: Using AI for Scope 3 Emissions from Purchased Goods and Services



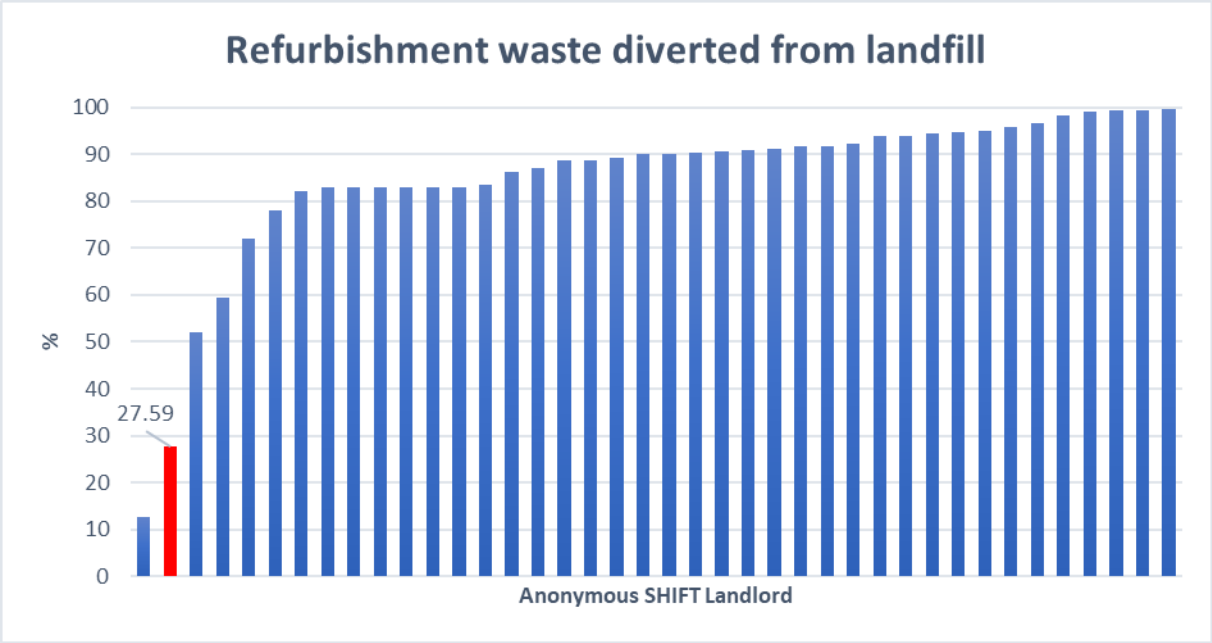
Recommended improvements:

- Consider hosting a supply chain engagement day focusing on sustainability – this will help gain further detail from all suppliers. The days provide a great opportunity to clearly explain the environmental data required for SHIFT and your own monitoring strategy. Establishing a point of contact within each supplier/contractor for sourcing this data will save you time and frustration during the data collection process.
- Consider making it a requirement within contracts for suppliers to devise their own responsible materials scoring methodologies. At SHIFT we are exploring a metric along the lines of the degree to which BES6001 is met. BES6001 is a catch all standard that deals with both environmental and social aspects of the supply chain. Note, we will not require formal accreditation on this, but each supplier should demonstrate how they believe they are achieving this, even if it is on a voluntary basis. Examples of verification include monitoring visits to suppliers to ensure they are operating responsibly.

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.

Coastline were able to provide waste data for their DLO, however this wasn't explicitly broken down into waste going to/diverted from landfill. The report details the tonnes of mixed recycling as well as wood and glass waste, both of which are typically recycled. From this, it is estimated that 27.59% of DLO waste is diverted from landfill. Full waste reports are readily available from contractors, and these provide a breakdown of waste type (e.g., general, glass, wood) and recycling rates.



Recommended improvements:

- Require subcontracted maintenance firms to report their recycling rates to you and provide supporting evidence in the form of waste reports. Eventually these will improve once the supplier sees the importance of recording high recycle rates to your organisation. Organising more frequent reporting will embed this much more quickly in these organisations.
- Consider implementing subcontractor KPIs for this impact aiming for 100% diverted from landfill by 2050.

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

www.SHIFTenvironment.co.uk

The Exchange, Brick Row, Stroud, GL5 1DF
www.SHIFTenvironment.co.uk 07718 647117 info@SHIFTenvironment.co.uk