



Tai
Wales & West
Housing



Building a Sustainable Future
Environment Strategy
2023- 2030

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Foreword

‘Doing the right thing’ is ingrained in both our thinking and our language at Wales & West Housing. It guides our actions and behaviour and is part of the reason why we deliver excellent services that our customers are satisfied with. It equally applies to how we run the business – the right thing to do is ensure we do all we can to tackle climate change and make a positive difference to the environment.

The Welsh Government declared a climate emergency in 2019 recognising the scale of the challenge and the responsibility of all sectors of society to take action. We know the part we can play and this strategy sets out the actions we will take over the coming years to reduce greenhouse gas emissions, improve energy efficiency and enhance biodiversity.

We are a large social enterprise that provides homes and services to more than 20,000 people across Wales. Our focus is twofold, building more housing and looking after the people and homes we own and we pride ourselves on doing both well. People rely on us, so that they can build good lives knowing that their home is secure, safe and well looked after. They also rely on us to run the business responsibly and that means taking the climate crisis seriously and using the limited resources we have to best effect.

The aspirations we want to achieve through this Environment Strategy are shared by our residents. People want warmer homes that cost less to run,

money spent in their communities to support local businesses and therefore jobs. People want to live in attractive neighbourhoods, with reduced traffic and places for their families to enjoy. People want to be engaged so that they are part of making a difference in their homes and in their communities. Together we can achieve all of this.

The goal is net-zero emissions by 2050 or sooner if we can. We are a people business and it will take collective action by all – staff and residents – using all the creativity and commitment we can garner to meet the goal. We also understand that we all have other pressing priorities and we are committed to ensuring we maintain the high standard of our core services and we will incorporate additional actions to prioritise environmental improvements as part of how we work.

We know making the improvements needed will be a challenge, both financially and technically. We will be open and transparent about the progress we make and the benefits we achieve for residents. We have calculated our carbon footprint and will use the established methodology to monitor our decarbonisation progress and work with our suppliers, contractors and partners to encourage them to do the same.

This Environment Strategy demonstrates our commitment to a more sustainable future and we hope will encourage others to make their intentions clear and work with us to achieve, what has to be, a collective goal.



Anne Hinchey
WWH Group Chief Executive



Alex Ashton
Chair of the Board

Our approach to a sustainable future

As a business with a strong sense of its social purpose, we recognise our responsibility to lead by example and to demonstrate that being more environmentally sustainable represents good business. Our guiding vision is *strong sustainable growth to **make a difference** to people's lives, homes and communities* and this strategy sets out the actions we will take to contribute to the global commitment to reduce greenhouse gas emissions and mitigate climate change.

With this strategy we aim to respond to the commitments made by all nations in 2015 as part of the Paris Agreement and the UK and Welsh Government's commitment to reach net zero emissions across all sectors by 2050. In developing this strategy it has provided an opportunity to reflect on the work undertaken so far, explore what more we can do and set a clear path for the coming decades.

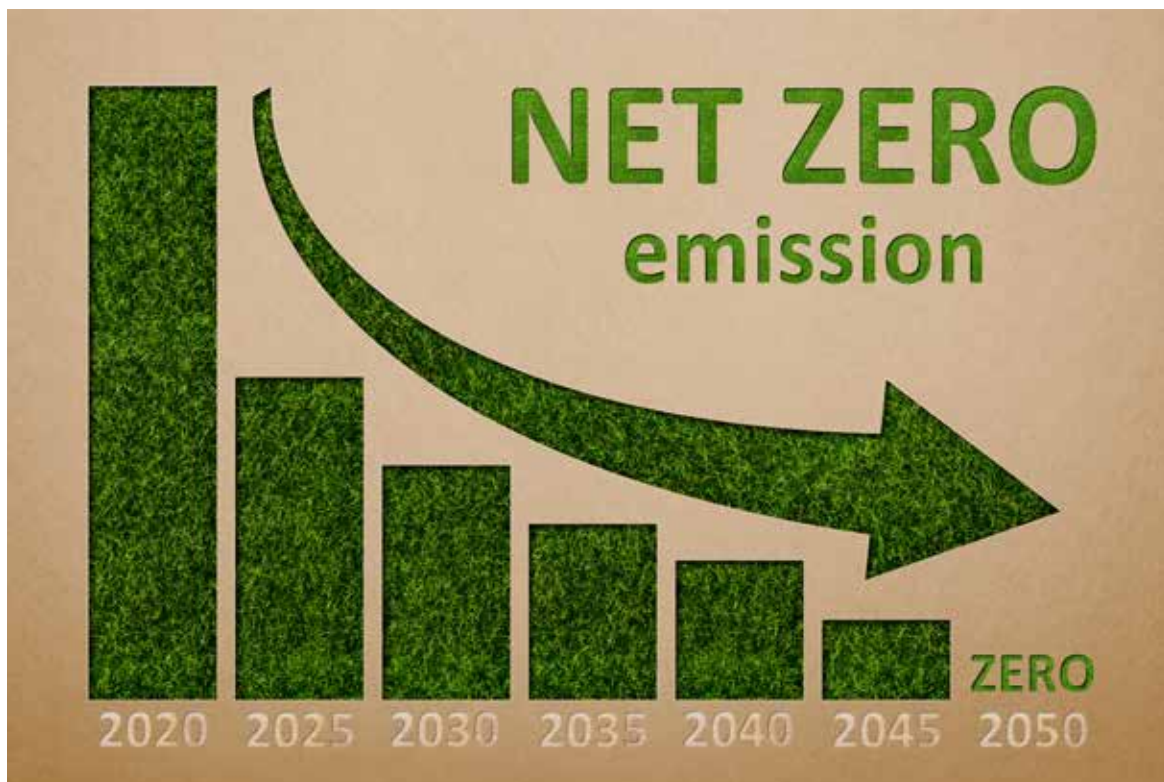
First and foremost we have a responsibility to the people who live in our properties and who provide us with the income we use to run the business. As a result, a set of *guiding principles* have emerged which have shaped our approach.

Affordability

We understand what matters to our residents and know the value they place on having a safe, secure and well-maintained home. We also know, even more so during the present cost of living challenges, the importance of affordability which is more than just the cost of the rent.

We have long focused on the cost to occupy our homes, which is why we adopted the Joseph Rowntree Foundation living rent model which takes account of the expenditure required to run a home.

We are committed to ensuring that energy bills are affordable and that fuel poverty is minimised, in fact we want our properties to be more affordable and the changes we make to bring a double benefit of lower bills and greater comfort. It is important that the actions we take as part of this strategy do not make our homes less affordable.



Fabric first

Our focus for some years, in our existing and new build housing, is on 'fabric first' – making the walls, floors and roofs the most energy efficient they reasonably can be. By doing this we will help ensure that our residents get the best from whatever low carbon technologies are installed in the future for heating, lighting, or hot water provision. A fabric first approach will reduce the demand for energy and make homes more affordable and sustainable.

Easy to use

It is important that our staff and residents are comfortable with the changes we make to the operation of the business and our properties. Some new technology, systems or ways of working, may feel very different from what people are used to and it will take time for these to become usual. Our experience to date is that we need things to be easy for people to use or we will not get the uptake or behavioural change we want. Training, guidance and support can help, but will only ever go so far if new systems are complicated and difficult.

Progressive and evidence based

The pace of change is impressive and new 'green' technological solutions emerge almost daily. We want to be forward thinking about the potential solutions available and also mindful of their robustness, affordability and useability, and the impact on staff and residents. We believe it is for others to be at the cutting edge and early adopters and it is our responsibility to utilise solutions that are tried and tested, with a track record of effectiveness. We will trial different approaches to learn what works practically and delivers value.

Maximum benefit

We adopted a concept of **buy-right** some years ago so that any goods or components we purchased were not only fit for purpose but brought other benefits, such as sound environmental credentials and social value. We tried, wherever possible, to source items that were made locally, supporting businesses and employment in the communities in which we operate.

The investment necessary to deliver this strategy will be considerable and we want to maximise the economic and social benefits possible. We will need additional skills to create training and employment opportunities and help new businesses form and grow. There are multiple benefits to be realised from our transition to net zero and we are determined to maximise them all.

The Paris Agreement sets targets for global emissions to be reduced by 45% by 2030 and to reach net zero by 2050.



Carbon footprint

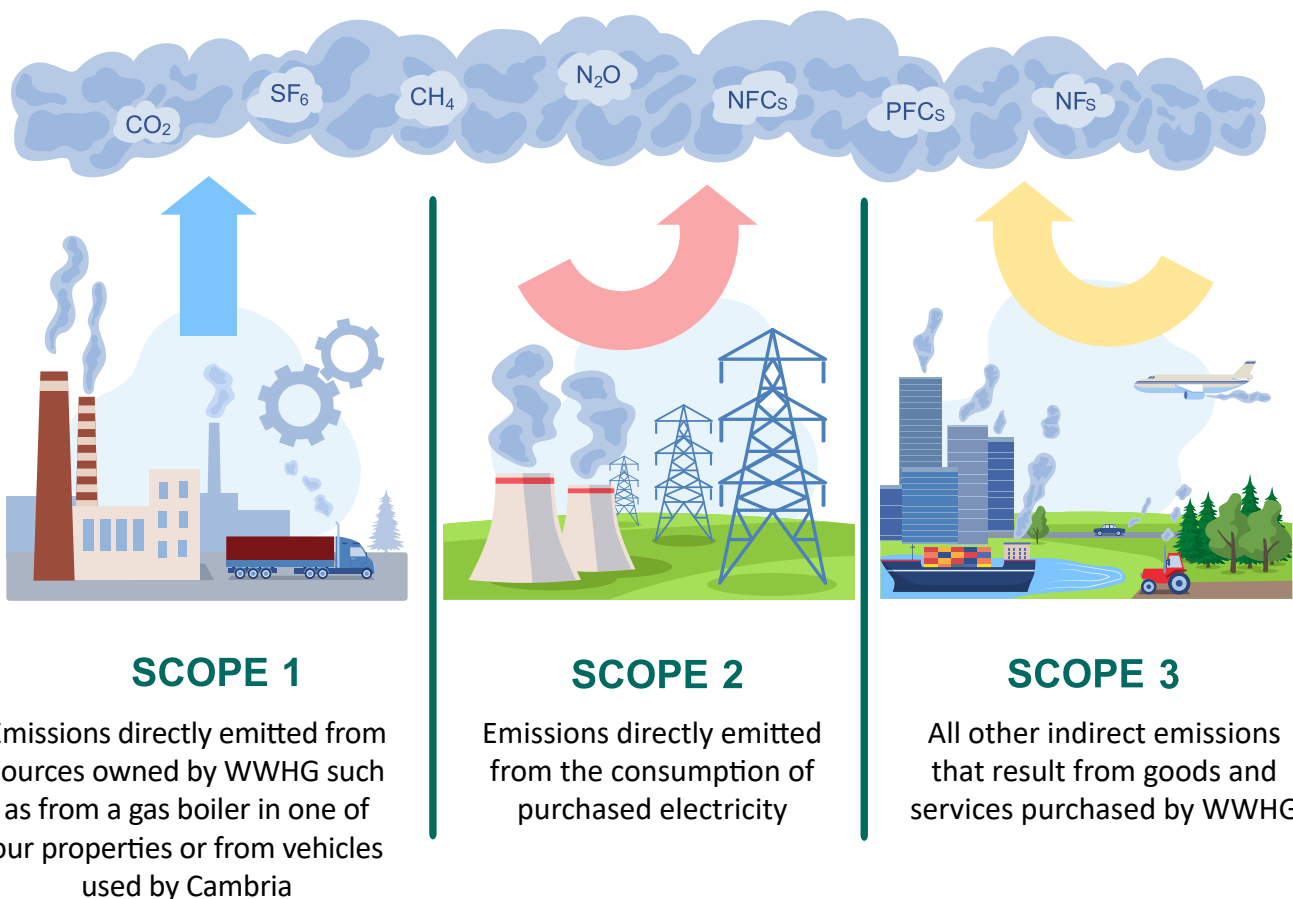
The purpose of this strategy is to chart how we will achieve 'net-zero' by 2050. According to the United Nations, quite simply net zero means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere by, for example, oceans and forests. The earth has been warming for the last two centuries and, in order to avert the worst impacts of climate change, global temperature increases need to be limited to 1.5°C above pre-industrial levels. The Paris Agreement sets targets for global emissions to be reduced by 45% by 2030 and to reach net zero by 2050.

As stated by the United Nations, *'transitioning to net-zero is one of the greatest challenges humankind has faced'*. It calls for nothing less than a complete transformation of how we produce,

consume and travel. The energy sector is the source of around three-quarters of greenhouse gas emissions today and holds the key to averting the worse effects of climate change. Replacing polluting coal, gas and oil-fired power with energy from renewable sources, such as wind or solar, would dramatically reduce carbon emissions.

To help us understand where we can have the most impact and to guide our actions, we engaged the Carbon Trust to calculate the carbon footprint for the Wales & West Housing Group. They used the Greenhouse Gas Protocol, the most widely used and accepted methodology for greenhouse gas accounting, which categorises emissions into 3 scopes:

Scopes of emissions



Greenhouse gases (GHG) are not limited to CO₂ and therefore the emissions of several other gases such as methane, nitrous oxide (N₂O) and hydrofluorocarbons (used in refrigeration) must be considered when calculating a 'footprint'. Different gases have a specific global warming potential and are measured in tonnes of carbon dioxide equivalent – tCO₂e.

The total carbon footprint for the Wales & West Housing Group is 56,194 tCO₂e. The importance of calculating the carbon footprint is not to determine whether it is high or low and there are no comparators against which the level can be assessed. The benefit of the calculation is to provide a starting point against which to measure future progress in reducing the level of emissions.

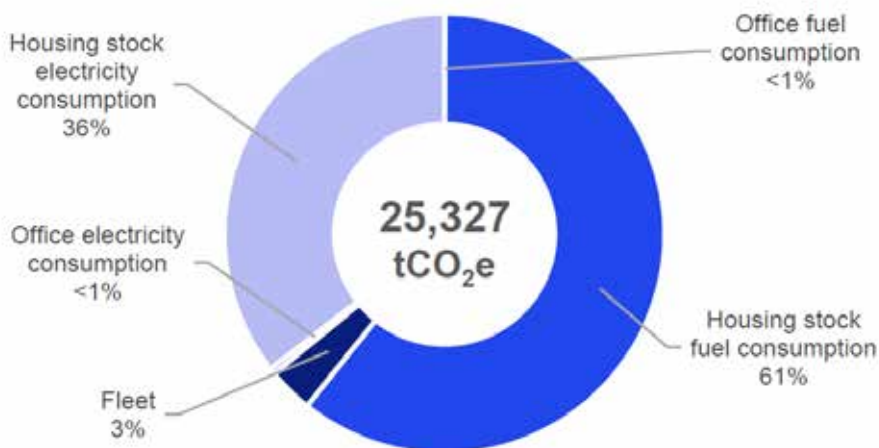
WWH Group total carbon footprint 2022

Emissions by scope

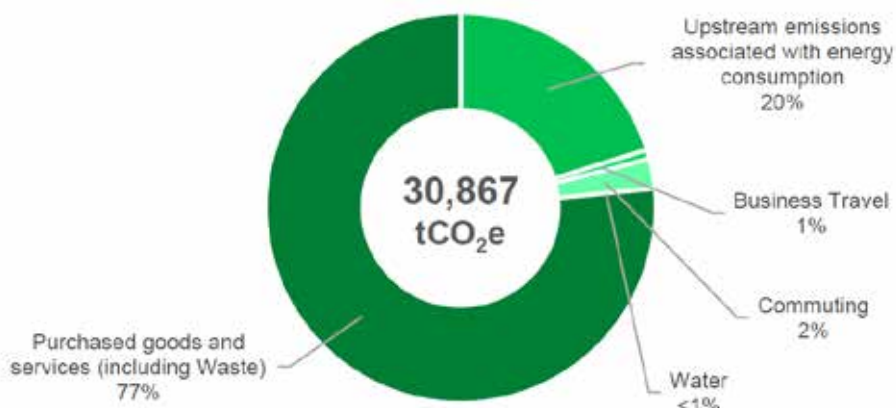


- Group scope 1 and 2 carbon emissions were **25,327 tCO₂e** in 2022, or 45% of the Group total carbon footprint.
- Group scope 3 carbon emissions were **30,867 tCO₂e** in 2022, or 55% of the Group total carbon footprint.
- Emissions from the housing stock accounted for 97% of scope 1 and 2 emissions.
- Purchased goods and services accounted for 77% of scope 3 emissions.
- Upstream emissions associated with the extraction, production and transportation and distribution of fuels and electricity co-consumed in offices and the housing stock accounted for a fifth of scope 3 emissions.

WWH Group total scope 1 and 2 emissions in 2022

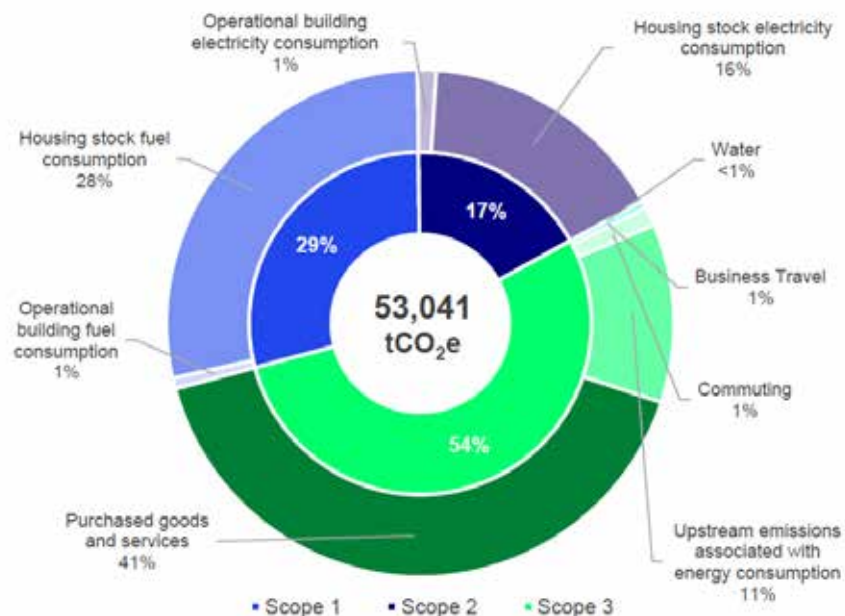


WWH Group total scope 3 emissions in 2022



The emissions for the two main parts of the Group, WWH and Cambria, were calculated. The total carbon footprint for the housing association part of the group were 53,041 tCO₂e, which equates to 94% of the Group's total emissions.

WWHA total carbon emissions in 2022



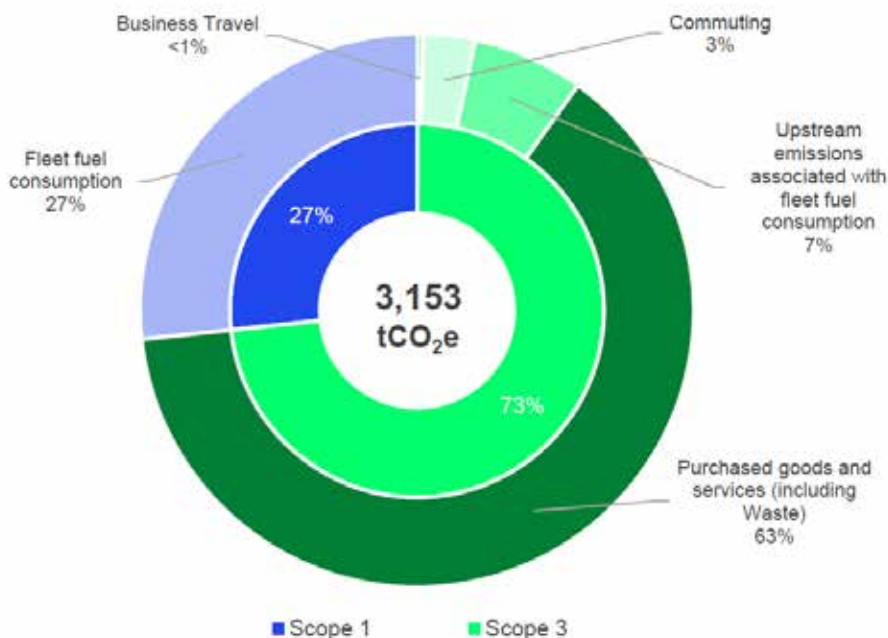
Scope 1 and 2 emissions were 46% of the total at 24,484 tCO₂e with scope 3 emissions accounting for the remainder. The housing stock is the largest individual category of emissions, contributing 29,217 tCO₂e to the footprint.

The second largest source of emissions is purchased goods and services, contributing 21,637 tCO₂e. Of these, items such as business travel, commuting and water consumption make up only minor amounts.

Cambria total carbon emissions in 2022

Cambria's scope 1 and 2 emissions at 3,153 tCO₂e are relatively small as a proportion of the overall Group at 6%.

The largest source of emissions is purchased goods and services at 63% and the second largest is diesel used by the Cambria fleet of vehicles which alone accounted for 1,047 tCO₂e.



The carbon footprint assessment is the starting point in the journey to net-zero. It provides a baseline assessment of greenhouse gas emissions against which to measure progress and will support the development of whole life carbon assessments so that organisationally we can understand both operational carbon emissions - those resulting from energy use in running a home and the business, and embedded carbon emissions – those emitted through the production or manufacturing of the goods and materials used by the Group in, for example, development and maintenance of properties. We want to understand our progress in reducing greenhouse gas emissions through the whole lifecycle of a housing development.

Our priorities

The ultimate aim and purpose of this strategy is for the Wales & West Housing Group to be net-zero by 2050. However, the way it is achieved is almost as important.

Our priority is to safeguard the wellbeing of our residents and ensure we use our limited resources to best effect. The roadmap to delivering this strategy is designed to achieve the transformation

we require over time as our confidence, understanding and the technology progresses.

We are clear that the actions we take must deliver meaningful outcomes and benefits for our residents. It is important that staff and residents understand the rationale and see the value of the investment we are making.



This Environment Strategy charts the high-level actions required to deliver net zero and will run to 2030.

From this point on, much of the learning will have been done and the specific actions required for the next iteration of the strategy will be clear.

In these first years, the outcomes we are seeking are:

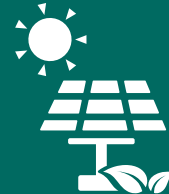
- Reduced fuel poverty
- Low carbon new housing
- Reduced carbon emissions
- Carbon literacy and more sustainable behaviour by staff and residents
- Increased biodiversity
- Increased skills and capacity to enable sustainability

We have identified seven priority areas for action that will enable us to achieve these outcomes

Sustainable - assets



Low carbon new housing



Retrofitting existing homes

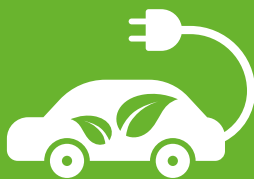


Improving biodiversity



Renewable electricity and micro-generation

Sustainable - operationally



Fleet, business travel and commuting



Support our partners' environmental journey



Changing thinking and behaviours

Strategic priorities

Sustainable - assets

1 Low carbon new housing



The WWH Group has a long history of developing new affordable housing and we pride ourselves on helping to solve the housing crisis with our ambitious new build programme. Our new housing is of an excellent standard, built to a high specification well in excess of the minimum requirements of the Building Regulations in respect of energy efficiency.

The most recent developments, such as Rhiw Cefn Gwlad, at Bryn Bragl, Bridgend, demonstrate what can be achieved through careful design and choice of materials. These homes are low carbon in their construction and in their operation and reflect the Group's development strategy which focuses on efficient, affordable and accessible new housing.

The Welsh Government's design quality requirements for new homes funded through social housing grant is that they achieve EPC A. All the homes currently in the WWHG pipeline for social rent will achieve EPC A, which will mean they are very energy efficient and will be low carbon in operation, bringing considerable financial benefits to residents. We have learnt a lot in recent years about different options for heating, hot water provision and fabric construction to reduce the carbon impact and know we have more to learn to refine our pattern book and specification to achieve the optimum balance between the guiding principles we have set as part of this strategy. We will take our time to get the design right so that we do not simply meet the standards set for us, but ensure we deliver long-term sustainability.

The most recent developments, such as Rhiw Cefn Gwlad, at Bryn Bragl, Bridgend demonstrate what can be achieved through careful design and choice of materials.



Both our focus and that of Welsh Government has been on buildings that are low carbon in operation. The next step is to reduce the level of embodied carbon emissions that result through the construction of new housing, looking at the materials used and the build process itself.

We have been committed to increasing the use of timber in the construction of our new housing for some years as the most sustainable, carbon neutral material available and one that lends itself to more sustainable offsite manufacture. It also locks in carbon through its growth and can be re-used or recycled with minimal carbon impact, unlike other materials. A significant amount of the Group's scope 3 emissions is associated with the construction of new homes and our ambition is to understand the options available to build genuinely low carbon housing and to identify the best partners for us to work with. We will produce a second edition of our pattern book and specification, once we have fully evaluated the options, and this will underpin our journey to net-zero.

The consequence of changing land use to housing is sometimes the loss of natural habitat, especially in more rural areas. We want to understand the broader environmental impact from our housing developments and design to minimise the negative footprint.

We will take action to make a difference and are committed to enhancing the natural environment

Our home of the future will inherently be low carbon, sustainable and represent the best in affordable housing.

as part of new housing developments and see this as important as all other aspects of design.

Our ambition goes beyond low carbon new housing and is enshrined in the phrase we have used for several years of the 'home of the future'. As a large landlord we see the whole lifecycle of our properties – the initial construction, the cyclical renewal of components such as kitchens, heating systems and electrical wiring, refurbishment and for some properties remodelling or demolition. We see the disruption these works cause and the waste generated. We aspire to design and build a true home of the future, where components can be renewed with the minimum of disruption. All elements are recyclable or capable of being refurbished and reused working in partnership with local companies and agencies to enhance the circular economy. We will develop a lifecycle assessment for our future new homes so that we fully understand the whole environmental impact of the properties and how we can ensure this is as small as possible. Our home of the future will inherently be low carbon, sustainable and represent the best in affordable housing.

The actions we will take:

- 1. Create a pattern book and specification to deliver new homes to EPC A and achieve low carbon in operation.***
- 2. To update the pattern book and specification to deliver fully low carbon (embodied and operational) housing.***
- 3. Develop an impact assessment tool to assist in understanding the environmental impact and mitigating actions necessary as part of new housing developments.***
- 4. Create a menu of options to improve the natural habitat and biodiversity of new housing developments.***
- 5. Develop the thinking and infrastructure necessary to implement the 'home of the future' concept.***

Strategic priorities

Sustainable - assets

2 Retrofitting existing homes



Improving our existing properties so that they are more energy efficient will have the greatest impact for everyone. For residents it will make their homes more affordable, improve their comfort, health and wellbeing and reduce greenhouse gas emissions. By any measure, improving our existing homes will bring considerable benefits.

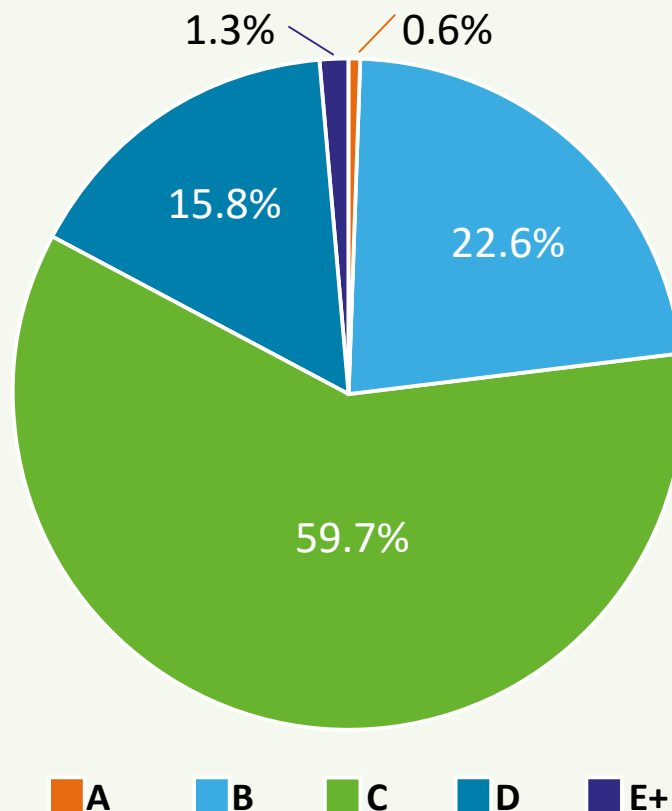
The Welsh Government's updated Welsh Housing Quality Standard (WHQS) will require social landlords to produce an 'affordable warmth and decarbonisation plan' by the end of 2026, setting out how all their homes will achieve an Environmental Efficiency Rating (EER) of 92 which equates to Energy Performance Certificate (EPC) rating of A. The standard is likely to require that all homes owned

meet a fabric-based EPC C band by 2029. The Welsh Government intends to work with social landlords in developing their plans so that they are viable both in terms of the timetable and resources.

We will review our Asset Management Strategy to explore what steps we can take to alleviate fuel poverty and are therefore well placed to understand the actions necessary to meet the first stage requirements of the new WHQS. The commitment to improve the energy efficiency of all properties within EPC bands D, E, F, and G to an EPC C rating (equivalent to a SAP rating of 69) is included in this strategy and will be a key component of the new Asset Management Strategy.

The chart below provides an indicative profile of the housing stock by EPC rating.

Percentage of homes by EPC rating



We have a significant track record of investment in energy efficiency and our homes are among the warmest social housing in Wales. The average SAP rating for our homes in 2023 is 76 and has been steadily increasing over the last decade.

We have undertaken programmes to improve insulation, install alternative heating and hot water systems and install solar PV and battery storage, all of which have helped us learn about installation, use, cost and performance. Some of the work has been part of pilot projects under the Welsh Government's Optimised Retrofit Programme (ORP) and these have provided us with opportunities to work with our residents on different approaches to retrofitting – whole house, incremental or component based. The collective learning from the multiple projects will inform our affordable warmth and decarbonisation planning.

The energy performance certificate rating system is based on the standard assessment procedure (SAP) methodology for calculating and comparing the energy performance of buildings. It assesses the amount of energy a building will consume to a defined level of comfort based on standard occupancy levels. The SAP, and therefore EPC, rating are based on the cost of the fuel being used in the property and, therefore, homes using gas will have a much higher rating than those using electricity even if they are less energy efficient. As a result, it is sometimes impossible to retrofit homes and

achieve EPC A without continued use of fossil fuel based, high carbon emitting heating/hot water systems. The UK Government is working on an enhanced version of SAP to better support net zero commitments which is expected in 2025.

We will keep abreast of the progress with a new SAP methodology and explore alternative approaches to measurement so that we are able to properly make carbon impact assessments and track our progress.

Beyond the improvements we will complete to bring all homes up to EPC C, which we believe we can fund from existing resources, there is considerable challenge in retrofitting all of the housing stock to achieve an EPC A rating. We are not alone in facing this challenge, all portfolio landlords and many others will need to do the same. The target energy pathway is only part of what is required for a fully deliverable affordable warmth and decarbonisation plan. We will need to specify in detail what works are required for each home to achieve the outcome detailed as part of the target energy pathway. We will need to have resolved the approach that best suits our residents so that disruption is properly managed and support put in place to help them cope with the changes.

One size will not fit all and we may need to take a different approach for different residents. The main issue to resolve is the identification of funding to

Our scheme to retrofit six homes at Glannant in Ceredigion won the award for Sustainability at the Welsh Housing Awards 2022



The homes have been fitted with: new windows and doors to improve insulation; increased loft insulation; external wall insulation (EWI), designed to retain heat in the home and improve the external appearance; solar (PV) panels on the roof; batteries to store any electricity that is generated during the day which can be used in the evening; and ventilation units in the loft to reduce condensation by replacing humid air with fresh filtered air.

We are committed to improving the energy efficiency of all of our housing by 2050, or sooner if resources and capacity allow.

supplement our resources which are not sufficient to pay for the scale of decarbonisation works required. We are committed to working with Welsh Government and our fellow social landlords to explore alternative funding streams that, combined with public subsidy and our own resources, will fund the plethora of decarbonisation plans produced in the next three years.

We are committed to improving the energy efficiency of all of our housing by 2050, or sooner if resources and capacity allow. We will prioritise those homes that are the least energy efficient and undertake works that bring a commensurate level of benefit to the residents for the expenditure we are making. For some homes that will mean we will improve them to EPC A in one step and for others their progression to zero carbon will be more gradual as technology and systems improve and provide better value. Up to 2030, the absolute priority will be homes with an EPC rating of D or lower. From 2030 through to 2050 we will improve homes in accordance with our affordable warmth and decarbonisation plan and roadmap.

We will use the next three years to complete additional surveys of our properties so that we have more accurate and complete information necessary to prepare target energy pathways. We will continue to complete pilot projects to add to our understanding of different technical solutions and options for improving energy efficiency. We want to be confident that our affordable warmth and decarbonisation plan is achievable and deliverable in a way that meets the expectations of our residents.

Our actions and the improvements we make will not be limited to just the housing. We want residents to be able to choose and access more sustainable travel options, such as e-bikes or electric vehicle charging. The infrastructure is not available in many areas and not all homes have the space required. We will work with partners and other agencies to help us understand the options available.

The actions we will take:

- 1. Undertake detailed property surveys to complete our understanding of the works required for target energy pathways for all homes.***
- 2. Retrofit homes that have an EPC rating of D to G to minimum rating of EPC C.***
- 3. Work with Welsh Government and social landlords to develop fundings streams for decarbonisation plans.***
- 4. Prepare an affordable warmth and decarbonisation plan for all housing stock to improve energy efficiency to EPC A.***
- 5. Explore alternatives for the measurement and monitoring of progress towards net-zero for the housing portfolio.***
- 6. Develop a comprehensive suite of training modules to guide residents to make the most of their newly energy efficient homes and the technology for heating, hot water and energy generation.***
- 7. Work with partners and other agencies to understand options for sustainable travel on estates and at schemes***

Strategic priorities

Sustainable - assets

3 Improving biodiversity



Alongside actions to reduce greenhouse gas emissions from our physical assets, we recognise there are other ways in which we can reduce emissions and improve the environmental impact of our business. We own large areas of land in and around our residents' homes, the maintenance of which contributes to our carbon footprint. These areas of lawn, open green spaces, trees, shrubs and flowerbeds could be enhanced to provide multiple benefits – greater greenhouse gas absorption, more and varied wildlife, more attractive to live with and lower long-term costs of maintenance.

Over the coming years we will transform the homogenous landscapes of large grass areas that require regularly mowing by planting native shrubs

and trees to effectively 'rewild' these areas and increase their biodiversity making them attractive for wildlife.

This will help reduce costs and make schemes more affordable for residents to live in. We want to inspire our residents to engage in this mission and work in partnership with us, and other agencies such as Keep Wales Tidy, to progressively change these landscapes to ones that are more environmentally friendly and that they would want as part of their community.

Through our making a difference awards over the last decade we know we have many skilled and committed horticulturists and arboriculturists living in our properties. We will work with residents to create a series of pilot projects across Wales to commence the transformation of the types of areas we have on schemes and estates. The projects will demonstrate how we can create sustainable ecosystems that both enhance biodiversity and help offset the carbon emissions we cannot avoid.

To complement the pilot projects we will undertake on existing schemes, we want to capitalise on the opportunities presented by larger new build developments by creating significant ecological habitats as an integral part of their design. We will use one of the larger development sites we have in the pipeline as a demonstration project to showcase how diverse outdoor spaces can be created, and maintained, in partnership with the residents. The sustainable drainage systems we are required to incorporate means we are creating ponds and wetlands which we will combine with amenity and play areas for residents and wildlife habitats which will attract and enrich local fauna and flora.

WWH Housing Officer, Rhian Marsh, and resident Iorwerth Jones, in the communal garden at Llys Hafren in Newtown



Creating the habitats we want out of the rather homogenous areas we have will take a level of know-how that we do not already have. It will take time for our skills and experience to design, create and maintain these more diverse and ecological

habitats to develop. We will invest in our staff and residents to develop the expertise we need so that we can all realise the positive social and environmental benefits possible.

The actions we will take:

- 1. Create a series of pilot projects on existing housing schemes, in partnership with residents, to transform existing grassed areas into more diverse natural habitats.***
- 2. As part of one of the large developments in pipeline, set aside land to use as demonstration project to create a large and ecologically diverse outdoor space that works for residents and wildlife.***
- 3. Working with partners, devise training sets for staff and residents to provide the skills and knowledge necessary to create more biodiverse natural habitats.***



Strategic priorities

Sustainable - assets

4 Renewable electricity and micro-generation



Our retrofitting programmes will concentrate on making homes energy efficient, and therefore warmer, so that residents are less likely to be in fuel poverty. Our carbon footprint analysis shows that a third of greenhouse gas emissions are associated with electricity use and as we have relatively few homes (only 8%) that are electrically heated most of this use will be for all the appliances everyone uses to run a modern home. To reduce the carbon and environmental impact of that electricity use, we need as much of that electricity as possible to be sourced from renewable generation such as solar and wind.

For the electricity we purchase in running the business and on behalf of residents, we commit to only buying 'green' electricity from renewable sources. We have done this for some years and will continue to negotiate the best contracts. We will also explore with other housing associations the potential for collective procurement of energy supplies. We are sure there are financial savings to be secured for residents, given the scale of energy use across the entire social housing stock in Wales.

The energy crisis in 2022 led to a collapse in the energy market, with many suppliers exiting and the ability of customers to switch to different suppliers reduced. As the situation in the energy market has eased, we will use our resident involvement tools, for example In Touch magazine and social media, to promote renewable electricity and through our housing, asset management and tenancy support staff we will encourage residents to switch their supplies to green and renewable tariffs.

We anticipate a growth in micro-generation of electricity to supplement the National Grid which is unlikely to be able to meet the ever-growing demand for energy. We have installed solar panels to our offices and in almost 700 of our homes and

with some have included battery storage. We want to learn more about how we can use solar and other micro-generation solutions, such as small-scale wind power, to provide the majority of a home's power. We will explore initiatives such as 'homes as power stations' being promoted via the Swansea City Deal and Welsh Housing Renewable Energy Partnership of several housing associations with Welsh Government to provide residents with low cost, low carbon energy.

Our retrofitting programmes will concentrate on making homes energy efficient and, therefore, warmer so that residents are less likely to be in fuel poverty.

The actions we will take:

- 1. Ensure that all electrical energy purchased by the Wales & West Housing Group is from renewable sources.***
- 2. Explore the potential for a collective purchasing arrangement for energy supply with other social landlords in Wales.***
- 3. Devise a campaign to promote renewable energy and how to switch suppliers to residents.***
- 4. Explore the options for micro-generation of electricity, via solar PV and wind.***

Strategic priorities

Sustainable - operationally

5 Fleet, business travel and commuting



We have close to 200 vehicles as part of the Cambria and Wales & West Housing fleets and more than 600 staff traveling for business or commuting to the office. Most of this travel is in vehicles using petrol or diesel and, as quickly as the electric charging infrastructure grows, there are still many parts of Wales where it remains in its infancy. We have charging points at our offices for staff to use and though the uptake is small, it is growing.

Overall, taking account of fleet, business travel and commuting, which is close to 2 million miles each year, the emissions at 3.5% or 2035 tCO₂e are a small proportion of our carbon footprint, but a very visible one. We will decarbonise our fleet of vehicles over the coming years, adding infrastructure and working collaboratively,

particularly in more rural areas, to find solutions. Ultra-low emission vehicles, hybrid fuels, smaller and more efficient vehicles will be part of the answer as well as electric vehicles so we can be certain to continue to deliver services while coverage for charging improves.

In response to the Covid pandemic we moved to remote working almost overnight. The hybrid working arrangements we now have in place and the investment we have made in technology are examples of how we are working smarter and so reducing the need for travel. We will actively encourage a wider range of alternative and more sustainable travel solutions, such as the Bike2Work scheme, and digital working platforms for staff to undertake their jobs.

The actions we will take:

- 1. Devise a strategy to reduce the emissions resulting from the fleet and from all forms of business travel and commuting, adopting a range of mobility solutions which support both operational requirements and sustainability goals.***



Strategic priorities

Sustainable - operationally

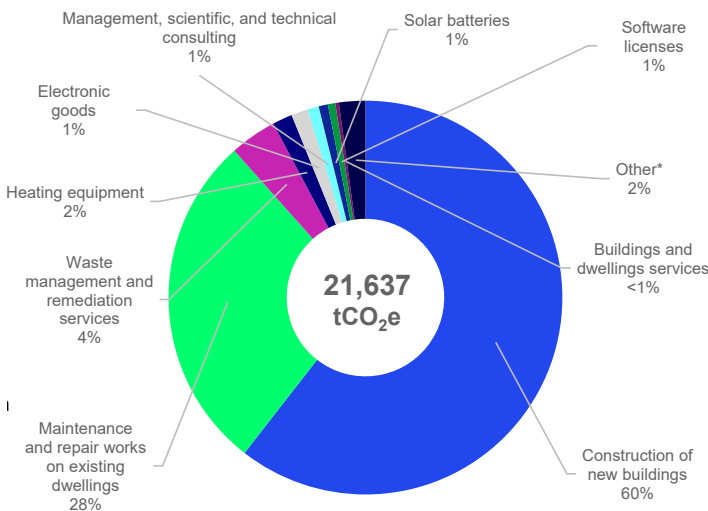
6 Support our partners' environmental journey



Our carbon footprint assessment has shown that the largest source of emissions, after the housing stock, is from purchased goods and services by WWH and Cambria. In 2022, the total value was £58 million and this resulted in 23,637 tCO₂e of

greenhouse gas emissions, the vast majority of which is associated with building new homes (57% of the total) and maintenance of existing homes (28%).

WWH total procurement emissions in 2022

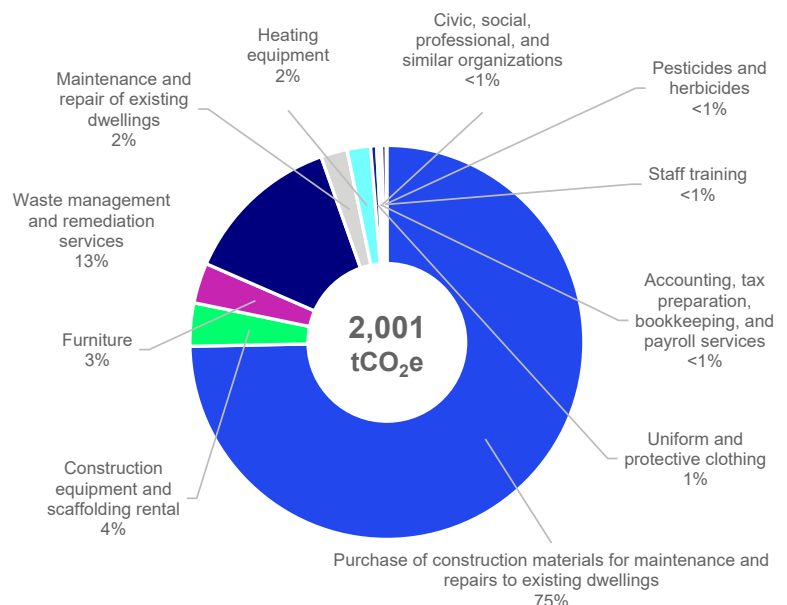


For WWH, the lion share of emissions result from the construction of new homes, followed by emissions from maintenance and repair of our existing homes.

Our main development partners, along with contractors that work with Cambria to maintain our homes, are primary contributors to the level of scope 3 emissions as they all undertake a considerable value of works each year.

Cambria total procurement emissions in 2022

Three quarters of Cambria's scope 3 emissions are from the purchase of materials for maintenance and repairs to our housing. The supply of materials accounts for over a third of the total scope 3 emissions alone.



Achieving a reduction in scope 3 emissions, those incurred indirectly by the companies we buy from and work with, we know is difficult. For starters the methodology for calculating these emissions is reliant on expenditure and takes limited account of the positive practice some suppliers and contractors may deploy. We are not deterred by the challenge though and we want to put in place actions that enable us to know reliably the impact being achieved.

We have a long history of partnering, and work closely with a small number of contractors to build our new social housing. We will work with them to better understand their carbon footprint and the scope to reduce greenhouse gas emissions incurred through the construction process and their supply chain. As we refine our pattern book

for new low embodied and operational carbon housing, we will want much more influence on the materials used in construction and fit out and, therefore, will want a much closer partnership with developers as well as engagement in their supply chain.

Our buy right approach, developed some years ago, has served us well ensuring we have purchased components that last the test of time and deliver some social value for our residents. We will bring new impetus to the buy right concept as part of our review of procurement, with stronger requirements and clear expectations for goods and services to be low carbon, sustainably produced and from companies that are also working to reduce their environmental impact.

The actions we will take:

- 1. Explore options to enhance the understanding of scope 3 emissions for purchased goods and services and the potential actions available to determine a pathway to their reduction.***
- 2. Work with the long-term partnering contractors to calculate their carbon footprint and how they can also move to net-zero by 2050 or sooner.***
- 3. Create a range of sustainability criteria to assist in the evaluation of contractors, suppliers and partners.***



Parc Brynach, Dinas Cross

Strategic priorities

Sustainable - operationally

7 Changing thinking and behaviours



Even with the investment and actions we will undertake as part of this strategy, we are unlikely to realise the goal of net-zero without significant behavioural change by our residents. They are central to the challenge as they have the ability to positively, and negatively, impact the level of emissions that result from our business. We want them to embrace the changes we will make and capitalise on the opportunities for them to save money and live in more comfortable homes. We know they are only likely to do this with support and guidance.

Changing thinking and behaviours will need to start with our staff. For them to guide and help residents to make the most of the new systems and technology we will need them to become advocates and champions for a more sustainable way of living. Promoting awareness and encouraging more sustainable behaviour is not new for us, with many staff and the Board having undertaken Carbon Literacy training and people being accredited as carbon literate as a result. We will build on the carbon literacy programme and create a comprehensive suite of training and supporting materials for staff to help our residents.

We know that many of our residents share our commitment to net-zero and have already made changes to their lives, so that they are also playing their part. These residents are powerful agents of change and we are committed to promoting their



Board members and residents at Ffordd Y Haearn, Cardiff

stories and showcasing the actions they are taking. We also want to help residents increase their understanding of climate change, biodiversity and how to live more sustainably. We will work with partner agencies to make available a range of materials via DVDs, YouTube and other media that residents can access to improve their knowledge, skills and confidence.

The actions we will take:

- 1. Develop a comprehensive suite of training materials for staff, building on the Carbon literacy programme to equip staff with the skills and knowledge to support residents to change their behaviour.***
- 2. Develop a range of materials to increase resident awareness and sustainability skills.***

The Wales & West Housing Group roadmap to net-zero



- Retrofits completed to all homes with an EPC rating lower than C
- All new social housing built to achieve an EPC A rating or equivalent
- Exemplar demonstration projects completed in new and existing social housing schemes to increase biodiversity and ecological habitats
- Increased carbon literacy and sustainability among staff and residents
- Developed an assessment tool and set base positions to monitor scope 3 emissions
- Implemented green travel strategy to achieve net-zero for all fleet and business travel



- Retrofits completed to homes identified in the WWHG affordable warmth and decarbonisation plan
- All new social housing built to achieve low embodied and operational carbon
- All green spaces managed by us in and around schemes to have been remodelled to increase biodiversity
- Comprehensive training programmes in place and being delivered for residents



- Retrofits completed to homes identified in the WWHG affordable warmth and decarbonisation plan
- Revisit baseline carbon footprint assessment and develop actions to reduce remaining greenhouse gas emissions
- Make suitable arrangements to offset remaining emissions to achieve net-zero

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Other languages and formats

If you would like a copy of this Strategy in Welsh or another language or format, for example, in large print, please let us know and we will help you.