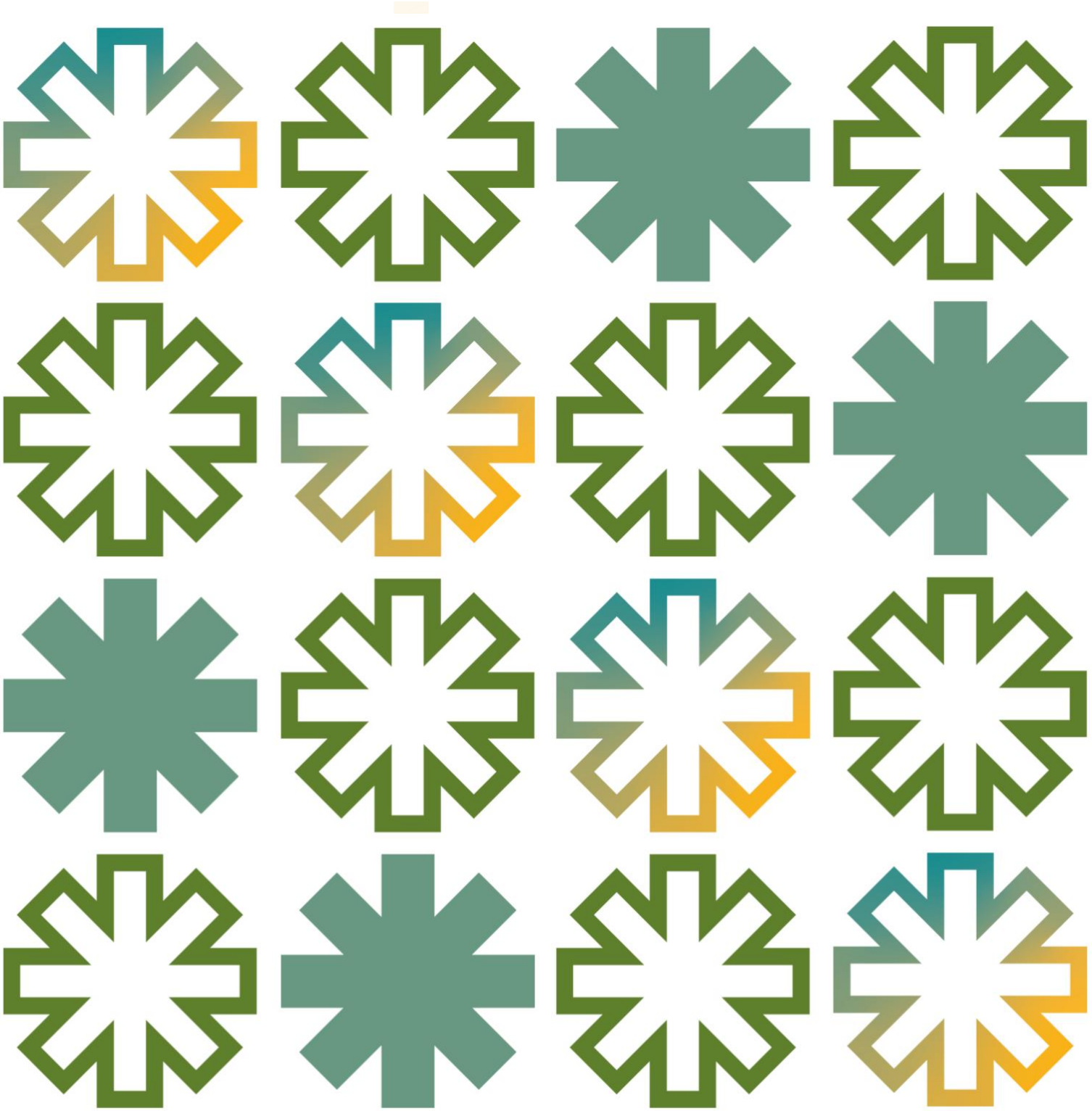


Beacon for the planet

Our sustainability strategy
August 2025

beacon

Foreword by the Group Chief Executive

This is Beacon's first sustainability strategy, intended to guide our new organisation to be 'Net Zero ready' by 2050. Although this is a new document, it builds upon lessons taken from our predecessor organisations' activities and experiences and develops key areas where Beacon can be better than what went before it.

Beacon's vision is to create better places for people and the planet. This strategy outlines our commitment to the latter, although of course the two are inextricably linked.

We intended to create and publish a sustainability strategy early in the life of Beacon Cymru as a statement of intent and to maximise the influence the strategy would have over the day-to-day operations of the new business. Publishing it on our website for you to read is an important step for us to be accountable for what we're promising to do.

The Welsh Government has a legally binding target to reach net zero emissions by 2050. Climate scientists now tell us that this date may be too late to avoid the worst effects of climate change, so this strategy includes a plan to adapt to the conditions we may face in Wales in the next ten to twenty years or so. The Rhondda valley has seen two major storm flooding events in five years (2020 and 2024) after a 41-year period without flooding. With similar effects predicted to hit other areas in the immediate future, it is sadly vital that we start to think about adapting to our developing situation.

This strategy also details a realistic path for drastic reductions in Beacon's emissions in the medium term, with a set ambition to become a net zero organisation before 2050. As before, Beacon recognises that the climate and biodiversity crises are intertwined, and this strategy commits us to activities to tackle both.

This will not be our last sustainability strategy before 2050 because we do intend to keep growing, learning and improving so that we can meet the challenges facing us now, and in the years to come. I hope you find the strategy interesting and reassuring. If you have any questions or thoughts about how it could be improved, please contact us.

Foreword by the Group Chair

As chair of Beacon's Board, I am pleased to introduce this sustainability strategy for our business. Creating a strategy to guide Beacon's path to net zero emissions is a challenging task, not just because of the timescales involved but also the level of uncertainty.

We acknowledge the amount of money that must be spent to improve the efficiency of the homes we manage, with the total investment needed for social homes in Wales estimated at £5.5bn, or £15bn for all homes in Wales. We gratefully acknowledge the support of the Welsh and UK governments so far; however, no long-term funding plan is yet in place to treat our existing homes. Hard-coding decarbonisation targets against this backcloth is undoubtedly testing. Indeed it would be easy to be downcast around the capacity to become truly net zero by 2050, not least because of numerous external factors which include:-

- The availability of carbon-neutral building products – a particular challenge as we look to decarbonise our housing stock from cradle to grave.
- The future fuel mix for Welsh homes remains uncertain. As an example, when will the UK electricity grid be carrying 100% renewable electricity?

- Does hydrogen gas have a place as a drop-in replacement for fossil gas; a possibility which would save a great deal of investment in the electrification of heating our homes and workplaces.
- Can we really only pledge to be net zero ready while infrastructure catches up with buildings?

These are legitimate questions for us to confront but our colleagues are full of resolve and were decisive in supporting 'planet' as one of the limbs of our vision. The board entirely supports this approach notwithstanding a world which in part has become more sceptical around climate change; or more particularly, the need to face into it and make tough choices. This is the start of our journey as Beacon but one which excites our colleagues and as our knowledge builds in the years ahead we look to build an even more compelling story around our journey.

Along the way we will of course respect the will and autonomy of the people who live in Beacon homes. We will do our utmost to avoid taking actions which negatively affect our residents, although government regulation and circumstance may lead to us taking difficult decisions. This strategy document is evidence of our pledge to work openly and collaboratively with all stakeholders, and we will take all opinions into account.

Introduction

This strategy is intended to guide Beacon's operations as we seek to decarbonise our business. As the effects of climate change become rapidly more observable, pressure mounts upon human society to change its ways. Much like society, every part of Beacon must change in order to address the challenges posed by the twin climate and biodiversity crises. This strategy therefore is a major, pan-business strategy. Every employee is responsible for implementing the change required by this document.

Beacon was formed in January 2025 from a merger between Coastal Housing and RHA. Both organisations had histories of innovation and continuous improvement, as well as experience with novel models of housebuilding. Beacon is a stronger organisation for being able to draw on the experience and expertise of staff from both predecessor organisations, whilst having the opportunity to start afresh with a heightened sense of ambition and urgency.

This strategy covers our response to all aspects of the climate and biodiversity emergencies including loss of ecosystems, water management and so on. It also includes an indicative roadmap to 'net zero' (emitting no more greenhouse gas emissions than can be reabsorbed by planetary or other means), intended to prevent the worst predicted effects of climate change from ever occurring. Sadly, the current scientific consensus is that some effects of climate change are now inevitable, so this strategy also contains a section on how Beacon will deal with the main identified risks to its business.

Mission Statement

To contribute to a sustainable future for people and the planet, in partnership with local communities and businesses.

Measures

SMART – Specific, Measurable, Achievable, Relevant, Time-bound and a target.

Emissions

Code	Measure	Owner	Data	Units	Target
EM1	Scope 1 emissions	Business Performance Officer	Obtained from consultant (SRS core)	Tonnes CO_2e	As a growing business, Beacons Scope 1 emissions are likely to grow for the foreseeable future. Beacon will try to minimise this growth through its business choices. CO2 emissions will be presented as apportioned per Beacon dwelling for inter-year comparison.
EM2	Scope 2 emissions	Business Performance Officer	Obtained from consultant (SRS core)	Tonnes CO_2e	As per EM1.
EM3	Scope 3 emissions	Business Performance Officer	Obtained from consultant (SRS core)	Tonnes CO_2e	As per EM1
EM4	CO_2 from business mileage	Head of Finance	Beacon's grey fleet needs to be monitored because it affects the overall carbon footprint	%age of miles zero carbon, to be 100% by 2040	This measure is determined by staff vehicle choices. However, Beacon's operation of a salary sacrifice scheme for electric vehicles and the UK governments targets mean we expect this to decline to zero by 2040.
EM5	Move all data to Microsoft 365 by 2030.	IT Director	Microsoft has a carbon neutral target by 2030, so this ensures our IT is net-zero ready.	100% of data by 2026	This work will start in 2025 as Beacon moves towards a single Microsoft 365 tenancy. It should be completed in 2026 when other cloud solutions are finally ended.

Energy Efficiency

Code	Measure	Owner	Data	Units	Target
EF1	All properties to be EPC 'C' by 2030 from 2025 baseline	Head of Assets	%age of properties ≥ EPC 'C' (SRS core)	EPC distribution table	The table should show all Beacon homes having an EPC of 'C' (SAP score minimum 69) by 2030.
EF2	10% reduction of properties <EPC 'C' per year to 2030	Head of Assets	Properties treated and retrofitted	Number of homes and %age of stock	EPC scores are reported annually in Beacon's SRS reports. These should evidence this decline.
EF3	Resident efficiency conversations *(baseline needed)*	M&E Manager	Cannot be accurately quantified and evidenced.	Should coincide with new boiler fittings and GSCs at least.	This data will be impossible to capture accurately, but we will encourage all operatives on site to speak to residents about efficient use of their homes.
EF4	All heat operatives trained to install and maintain heat pumps by 2035.	M&E Manager	Beacon will need skills to maintain novel technology	All operatives trained by 2035	Beacon will train at least 2 operatives per year to ensure we have the skills to decarbonise our homes. Beacon will also look to provide apprentice placements.
EF5	Electrification of tools	Head of Estates/Director of Maintenance	Petrol tools need to be phased out alongside ICE vans	All tools electrified by 2030; %age published annually	All petrol tools will be replaced with electric ones by 2030 to reduce Beacon's use of CO2 producing fossil fuels.

Carbon Literacy

Code	Measure	Owner	Data	Units	Target
CL1	Staff undertaking mandatory Carbon Literacy training	Director of HR	Held and managed by HR	Percentage of staff trained, percentage of staff certified	Aim to get to and maintain 80% of staff trained with 50% of attendees holding certificates.

Adaptation to climate change

Code	Measure	Owner	Data	Units	Target
AD1	Development of strategy's adaptation chapter	Business Performance Officer	Incremental changes to Adaptation chapter as knowledge develops	Annual(?) updates to adaptation chapter	The adaptation chapter of this strategy will be kept updated in each subsequent version of the document as knowledge develops.
AD2	Household awareness initiatives	Head of Communications	Extreme weather events	Twice annual social media posts about coping with high/low temps, web pages	Informing residents and communities about climate change and Beacon's reaction to it is crucial, so Beacon will aim for 2 specific social media posts (across all channels) annually.
AD3	Annual reviews of flood risk	Director of Facilities	Could come from GIS mapping products	Annual statement of risk? Updated strategy/ insurance?	The Director of Facilities will monitor the situation on an annual basis so the business can react accordingly.
AD4	Aim to reduce buildings at risk of overheating	Head of Assets	From GIS maps.	Elimination/ adaptation treatment of buildings at such risk by 2035.	The Head of Assets will monitor the situation on an annual basis so the business can react accordingly.

Fly Tipping

9	Measure	Owner	Data	Units	Target
FT1	Using 2025 baseline (as reported to SHIFT), aim to reduce annual incidence	Estates Team Leader	This will require new fly-tipping data post-merger and a continuation of maintenance job coding, also a definition.	No. of fly-tipping incidents per year.	This is not something Beacon can control, but actions will be taken to deal with the problem of fly-tipping.

Fly Tipping continued…

9	Measure	Owner	Data	Units	Target
FT2	Sticker 100% of resident fly-tipped waste and follow up.	Estates Team Leader	This will come from Estates colleagues who have been stickering fly tipped waste.	Numbers of warning stickers placed; perhaps subsequent clearances required	100% of waste improperly disposed of by residents will be stickered and left in order to inform residents of their obligations. 90% of remaining waste will be diverted from landfill.

Sustainable Materials

Code	Measure	Owner	Data	Units	Target
SM1	Responsibly-sourced maintenance materials	Maintenance Procurement Partner	Reported by Maintenance Materials Buyer, reviewing supplier data	%age purchased materials responsibly sourced	50% of goods purchased by Beacon will be from verifiably responsible sources, avoiding modern slavery and unethical practices in a way which we can evidence. We will work with our consultants to improve on our 2023 baseline score of 40%, which itself was an estimate based on a lack of verification.
SM2	%age procurement taking place within Wales	Head of Finance	Provided by Finance already, published in annual reports.	%age spend in local area, Wales & elsewhere. Min. 80% in Wales (2023 baseline).	This is already reported by Finance in Beacon's annual reports. We will aim to keep spend in Wales above 80% from a baseline taken from 2023.

Sustainable Materials continued…

Code	Measure	Owner	Data	Units	Target
SM3	%age new homes carbon neutral in use	Director of Development	New homes EPC 'A' anyway; but we need carbon neutrality	% of new homes >SAP 87 each year	WG require new homes to be EPC A or as near as possible as a requirement of funding. However, some homes (e.g. refurbishments) cannot be built to this standard. Therefore, taking a SAP score of 87 as net-zero ready as advised by SHIFT and the AECB standard, Beacon will aim to ensure 90% of homes are over SAP 87 every year.
SM4	Zero waste construction	Director of Development	We need to get to zero waste and a circular economy	Construction waste in tonnes; averted from landfill reduced from a 2025 baseline	Data can be provided by the Social Value Manager. We will aim for 90% of construction waste diverted from landfill annually.
SM5	Recycled tech	Director of IT	Beacon is WEEE compliant, but recycling or reconditioning of old tech is important	%age of tech recycled/diverted from landfill. 100% baseline.	We will aim to keep old tech at 100% diverted from landfill, with as much of it reconditioned for re-sale and re-use as possible. We will also donate appropriate old phones and laptops to digital poverty charities.

Water Efficiency

Data could be owned by maintenance materials buyer role and assets data on handover from development.

Code	Measure	Owner	Data	Units	Target
WE1	Fit only baths <180/	Head of Construction/Cyclical Maintenance lead	Data will need to come from development and planned/cyclical maintenance.	Number of baths fitted known to be <180l as %age of total.	100% of fitted baths should conform to this. There will be an according requirement on Beacon's specification documents to enforce compliance from contractors.
WE2	Only fit aerating taps in bathrooms.	Head of Construction/Cyclical Maintenance lead	Data will need to come from development and planned/cyclical maintenance.	Number of low-flow/aerating taps as %age of total.	As WE1.
WE3	Fit only low-flow showers	Head of Construction/Cyclical Maintenance lead	Data will need to come from development and planned/cyclical maintenance.	Number of low-flow/aerating showers as %age of total.	As WE1.
WE4	Fit only dual-flush toilets	Head of Construction/Cyclical Maintenance lead	Data will need to come from development and planned/cyclical maintenance.	Number of dual-flush toilets as %age of total. This may already be 100%.	As WE1.
WE5	Fit water butts (as per WHQS23)	Head of Construction/Cyclical Maintenance lead	Will need to be recorded as cyclical/planned as well as any WHQS work	Number of water butts fitted (also by caretakers and ones placed in communal areas)	As WE1. Records will need to be kept of all new-build houses and bungalows and WHQS works.

Waste Management

Code	Measure	Owner	Data	Units	Target
WM1	Diversion of office waste from landfill	Director of Facilities	From waste contractors, based on waste removed from site	%age of rubbish removed and sorted (baseline 2023, 90%)	Taking 2023 as a baseline, we will work with contractors to verify 90% of such waste does not go to landfill.

Waste Management continued…

Code	Measure	Owner	Data	Units	Target
WM2	Diversion of maintenance waste from landfill	Director of Maintenance	From waste contractors, based on waste removed from site	%age of rubbish removed and sorted (baseline 2023, 90%)	Taking 2023 as a baseline, we will work with contractors to verify 90% of such waste does not go to landfill.
WM3	Diversion of fly tipped waste from landfill	Director of Maintenance	From waste contractors, based on waste removed from site	%age of rubbish removed and sorted (baseline 2023, 90%)	Taking 2023 as a baseline, we will work with contractors to verify 90% of such waste does not go to landfill.
WM4	Zero waste uniforms	Director of Facilities	Uniforms responsibly sourced and recycled at end of life	%age uniforms recycled or otherwise diverted from landfill	We will ensure that all old uniform goes to be recycled. All new uniform will feature responsibly sourced cotton and/or recycled polyester.

Green Space and Biodiversity

Code	Measure	Owner	Data	Units	Target
BD1	Baseline 2024 – 57 no-mow areas and 79 wildflower areas – nature zones	Estates Team Leader	We will need to maintain this number at least, and add to when new sites hand over.	Numbers of nature zones.	We will aim to maintain 120 nature zones across our sites annually, to be recorded by the Estates Team Leader.
BD2	Maintain a number of bird and bat boxes	Estates Team Leader/Head of Construction	To be baselined in 2025	Numbers of bird and bat boxes	We will aim to ensure every appropriate site and new-build site includes bird and bat boxes. A total target is inappropriate because space and opportunity will run out.

Green Space and Biodiversity continued…

Code	Measure	Owner	Data	Units	Target
BD3	Tree planting	Estates Team Leader/Head of Construction	Cannot set targets due to space restrictions, but should still be reported.	Numbers of trees planted	We will aim to ensure every appropriate site and new-build site has trees planted on it. A total target is inappropriate because space and opportunity will run out. Beacon will also work with appropriate external partners and charities to plant trees in areas where they are needed in other parts of Wales.
BD4	Green roofs	Estates Team Leader/Head of Construction	Target 1 per year	Number of green roofs created.	Green roofs can be created by Beacon's staff over bin stores and similar areas of existing sites, they can also be included on new developments. Beacon aims to create one per year.

Green Transport

Code	Measure	Owner	Data	Units	Target
GT1	Incremental moves to a zero-emission fleet	Director of Facilities	Zero emission could be BEV or hydrogen eventually.	ZE vans procured/leased	50% of vans per lease are ZE at renewal
GT2	Installation of charge points	Director of Facilities/Head of Construction	Annual targets unworkable long-term due to saturation.	Chargepoints (or sockets) installed per year	5 chargepoints per year (subject to OZEV grant continuing), including new-build schemes.
GT3	Totally zero-emission fleet by 2034	Director of Facilities	ICE vehicles will be phased out by this stage, but Beacon can get there slightly sooner.	Percentage of Beacon vans which are zero emission	All-alternative fuelled fleet by 2034.

Resident Engagement

Code	Measure	Owner	Data	Units	Target
RE1	Social media posts on sustainability	Head of Communications	Number of social media posts and estimated reach	Social media posts across all channels re: sustainability	At least one post per month
RE2	Public events on sustainability	Head of Communications	Could be Swansea Conference, Great Big Green Week, Wales Climate Week, carbon awareness etc.	Include resident events, conferences, exhibitions for the public, residents and professionals.	Three events per year
RE3	Community leases	Head of Communities	X number of properties leased to community interest groups at low rent	Parcels of land in Beacon ownership leased to community interest groups	5 properties/parcels of land in any one financial year.

Strategy Specific Areas

Energy Efficiency

Reducing energy use across all of Beacon's operations is arguably the biggest action to be taken towards reducing carbon emissions. Energy generation is the single biggest source of the UK's greenhouse gas emissions.

Beacon will;

- Ensure that all of our properties are as energy efficient as possible, upgrading to energy efficient heating options, better performing windows, and retrofitting insulation where possible. Some works are mandatory in accordance with WHQS 2023 and funding streams such as the Optimised Retrofit Programme and Homes As Power Stations. However, works can be planned to avoid further works in future and minimise disruption for residents. Beacon will ensure that its maintenance inspectors work to PAS:2035 and are qualified Domestic Energy Assessors where possible. (EF1, EF2, EF4, EM1, EM2, EM3, SM3)
- Purchasing energy efficient equipment, for example for IT systems. (SM5)
- Move IT systems to Microsoft exclusively by 2030, minimising data duplication in energy-intensive data centres. Microsoft has committed itself to being carbon neutral by 2030, therefore this step will ensure our data systems are net-zero ready by that date. (EM5)
- Beacon will ensure that our offices are as energy efficient as possible, using low energy lighting, efficient heating systems and phasing out kettles. (EM1, EM2)
- There is a risk that energy use will increase as we increase the number of electric vehicles in Beacon's fleet. Whilst this is still preferable to fossil-fuelled vehicles, we will seek to reduce energy use from transport by rationalising van allocation and ensuring works are carried out over as short a distance as possible, bearing in mind operative location and domicile. (EM2, GT1, GT2, GT3)
- Where verifiable data is obtainable, it will be recorded and added as a measure to this strategy, so that it may be reported upon and lead to future improvements.
- Procure energy from 'green' suppliers and tariffs (where budgets allow and subject to potential impacts on service charges passed to residents). Energy use is unavoidable, therefore it is crucial to ensure that what energy is used has as small an impact on the environment as possible. Using our procurement power in this way also helps to influence industry and set an example to the wider world.

Sustainable materials and increasing the use of responsibly sourced materials used for all building works

The built environment, including construction and existing dwellings, accounts for more than 40% of the UK's greenhouse gas emissions. The industry has a choice of construction materials, from those which have very high associated emissions (concrete) to those which actually 'trap' carbon within them (wood, recycled materials). Other factors such as production methods and transportation can increase the carbon footprint of construction materials.

Beacon will:

- Work with our contractors to encourage procurement of locally sourced materials wherever possible; for example, steel from Tata's Port Talbot plant, timber from Welsh forests and components from Welsh manufacturers. (SM1, SM2, SM5, EM3)
- Encourage and train staff involved in new builds and refurbishment to learn about low-carbon building techniques and to put their knowledge into practice in their jobs. Many free courses are available from our partners and networks, although specialist courses can be paid for where they would be of particular use. (SM3, EM3)
- Beacon's operatives will consider the whole-life impacts of materials, not overlooking what could be done with them at the end of their useful lives. Materials which can be re-used will be prioritised, followed by those which can be recycled, with other materials used only as a last resort. As this will be impossible to measure effectively, staff will be trusted to exercise their judgement. (SM1, WM3)
- Review the sustainability policies and statements of all suppliers, for example of kitchen and bathroom installations, in order to ensure that Beacon's procurement has a positive effect on industry. (SM1, SM2)

Water Efficiency

Although Beacon does not operate in areas currently understood to be water stressed, it does recognise that in future, hotter, drier summers as a result of climate change may be the norm, risking hosepipe bans and increased bills. Therefore, Beacon commits to prepare for this eventuality by seeking to reduce water usage. Additionally, water treatment and transportation has an energy demand and associated carbon footprint, from purifying drinking water to pumping it to where it is needed. Reducing water need will also reduce carbon emissions.

Beacon will;

- Encourage rainwater use by installing water butts for use by its estates teams. Installing water butts is a requirement of WHQS '23, so Beacon will monitor how many and where water butts are installed. (WE5)
- Review our new-build and maintenance specifications and seek to improve water use to 100 litres per resident per day. This will mean going beyond building regulations by encouraging showers and installing low-flow shower heads, educating about bath use and ensuring that all taps installed or replaced in bathrooms are aerating. (WE1, WE2, WE3, WE4, WE5)
- Only install dual-flush toilets. (WE4)
- Install only baths of less than 180ℓ capacity. (WE1)
- Commit to exploring the potential for rainwater and greywater harvesting at future developments and monitor the market for suitable retrofit products, appreciating that for the foreseeable future the priority is decarbonisation.

Waste management

As well as the obvious problems of landfill space and future land management of landfill sites, buried waste is a major source of methane gas emissions. Additionally, greenhouse gas emissions can be associated with the production of all new materials, so it is important that society makes a shift away from burying useful resources in the ground.

Beacon will;

- Ensure that all new-build homes have enough internal bin space to enable residents to separate waste. In flats, kitchens may include compartmentalised drawers for waste separation. (WM1)
- Support residents to use the recycling services offered by local authorities. This includes the provision of separate communal bins where applicable as well as information to assist recycling efforts. (RE1, RE2)
- Select waste contractors to dispose of our commercial and business waste who are able accredited to ensure that as much as possible is recycled. Beacon will work with those contractors to receive reports of amounts of material recycled. (WM1, WM2, WM3)
- We will support local communities in line with our social value strategy; for example by sponsoring local food and multi-banks, 'libraries of things' and furniture recycling projects. (RE3)
- Continue part-funding the Waste Officer role at Neath Port Talbot Council. This position works with people in the community on waste reduction and education.
- Leave carpets abandoned at end of tenancy for incoming residents to decide upon their retention. Prospective residents will be allowed to view the premises prior to any void work taking place (assuming that the property is presentable). (WM2)
- Seek to recycle leftover paints used by its decorating team. This service is offered by Beacon's paint suppliers, therefore all decorating operatives will be encouraged to wash paint vessels and take them to be recycled. (WM2)
- Compost green waste from estates in-situ to be used on Beacon's land or distributed to residents where surpluses occur. (WM2)

Fly-tipping

Every year, Beacon experiences numerous fly-tipping incidents. Reasons for fly-tipping range from difficulty transporting items to costs for the disposal of commercial waste. Fly-tipped waste can also contain hazardous materials such as high VOC products and asbestos. It is therefore crucial that fly-tipping is dealt with responsibly.

Beacon will;

- Establish job codes to identify fly-tipping incidents in its maintenance records. (FT1)
- Map areas to establish areas experiencing high incidences of fly-tipping. (FT1)
- Ensure that fly-tipped waste is disposed of responsibly. Waste hauliers will be selected for their ability to deal with the types of waste present as well as their capacity to see to it that as much of the waste as possible is recycled. (FT1, WM2)
- Consider installing CCTV or using other natural surveillance methods to deter future incidents where areas are prone to fly-tipping. (FT1)
- Work with the police to ensure that fly-tippers are prosecuted where they can be identified. (FT1)
- Beacon will also continue to part-fund the Waste Officer at Neath Port Talbot Council for as long as this role is accommodated and viable.

Ecology

The biodiversity crisis runs parallel to the climate crisis, and the two are inextricably linked. The UK has been cited as being one of the most nature-depleted countries on Earth, with only about half of

its natural diversity remaining since the industrial revolution. As a significant landowner in South Wales, Beacon is determined to play its part in tackling the biodiversity crisis.

Beacon will;

- Encourage and support our estates teams to reduce mowing of grassed areas and maintain areas where no mowing takes place at all. This provides habitat and food sources for invertebrates and small mammals. (BD1, BD2, BD3)
- Encourage and support its estates teams to create and maintain wildflower areas on estates in order to provide food and habitat for pollinators, birds and other wildlife. Beacon is prepared to pay for wildflower seed but will work with partners to plan the most effective ways to support biodiversity on our land. (BD1, BD2, BD3)
- Seek to incorporate green infrastructure into its sites where this is feasible; going beyond swales and SuDS to looking at green walls and roofs on new and exisiting buildings. (BD4)
- Engage with residents to foster understanding and acceptance of changes to the way Beacon manages its estates. (RE1, RE2)
- Consider the local environment in deciding what tree species to plant where. For example, hazel trees could be planted where dormice are present.

Green Transport

Transport and car use is a major source of greenhouse gas emissions. Over the last century, society has become increasingly used to the convenience of personal transport and foreign holidays. These are jeopardised by the need to take environmentally responsible lifestyle changes. However, given the dispersed nature of modern family life and the decentralised planning of our towns, it is likely that some forms of personal transport, and business transport, will always be needed.

Beacon will;

- Install electric vehicle charge points or outside plug sockets at all new houses. At blocks of flats, we will seek to install pay-as-you go chargers so that residents can conveniently charge their electric vehicles close to home in future. We will begin this ambitious roll-out immediately, so that our properties are ready for residents who make the move to electrified transport sooner. (GT2)
- Seek to install public charge points at its commercial premises, where off-road parking is provided. The switch to electrified transport can only happen if charging is as convenient as it can be for everyone. (GT2)
- Provide local public transport information to all incoming residents. Being made aware of local transport links is crucial to encouraging uptake. (RE1, RE2)
- Seek to electrify as many of Beacon's own vehicles as possible, as quickly as possible. Beacon leases its vehicles and so every three years there is the opportunity for any given vehicle to be switched. This process will be complete by 2034 at the latest. (GT1, GT3)
- Review our mileage and expenses procedures and payments so that staff are incentivised to use public transport for any work travel. Beacon's headquarters are located within 100m of a railway station and on a major bus route. (EM3, EM4)
- Continue to offer staff the benefit of the Cycle To Work Scheme, a salary sacrifice option which allows staff to buy a quality bicycle for less money. (EM4)
- Beacon will also seek to rationalise its fleet where vehicles are used by a single operative and stationary for most of the time. Beacon will also examine its logistics to ensure mileage covered by operatives and staff is minimised when moving between sites, helping to reduce emissions as well as fuel costs. (EM2, EM3)

Resident and Community Engagement

Climate change will affect almost every aspect of our lives and necessitate change. As we seek to decarbonise our housing stock and change the way Beacon operates in future, it is crucial that residents understand why we do what we will do.

Beacon will;

- Set out and seek to continuously improve upon a stakeholder engagement plan which includes residents as a key stakeholder group.
- Create a sustainability communication plan to accompany the stakeholder engagement plan, which details how we will engage with residents to prepare them for the changes to come. Beacon recognises that not all residents have access to the internet, therefore the operation of the communications plan is key to the success of this sustainability strategy.
- Identify resident champions through resident surveys and invite them to working groups with key Beacon staff. These residents will use lived experience to hold Beacon to account and influence the development of this sustainability strategy. (AD2)
- Instigate a habit of 'Beacon conversations' amongst all staff. Beacon's staff work on sites every day and carry out thousands of repair jobs every year. A golden thread throughout this strategy has been the empowerment and agency of staff, therefore staff who work face-to-face with residents will have tremendous influence in engaging residents. This strategy seeks to foster an environmentally aware culture amongst Beacon's staff and the enthusiasm of this staff will spark the important conversations. (EF3)
- Prepare residents early. Where retrofit and decarbonisation works are planned, Beacon will begin consultation at as early a stage as possible so that residents are prepared for the forthcoming changes to their homes, what they will need to do differently, and how work will be carried out. We will also work with residents post-works for a 'soft landings' style approach.

Pollutants

Beacon is aware of the potential harm which can be caused by materials and products it uses every day. Pollutants include, but are not limited to: mould, water pipes containing lead, diesel spills, disposal of paints and other products which are high in volatile organic compounds (VOCs). Other harmful substances such as asbestos or lead paint may also be present in Beacon's older buildings. Dealing with such pollutants safely is to protect people and the environment from avoidable harm.

Beacon will:

- Maintain an asbestos register to alert residents and contractors where potential health hazards are present.
- Minimise the use of glyphosate weed killer, as well as other harmful pesticides, in order to avoid harm to wildlife and members of the community.
- Avoid the use of harmful chemical fertilizers, instead opting to use compost made on-site from Beacon's own green waste.
- Support residents to better use and ventilate their homes where complaints of damp and mould are received. Beacon will work to ensure that future mould growth is mitigated and, where problems with the homes themselves are identified, seek to rectify the situation through advising residents on the causes of condensation or completing work (as appropriate) before damage to the building fabric or the residents' health occurs. (EF3)

- Encourage decorating operatives to use a minimal paint palette, so that paint which is not used on one site can be used on another. This will reduce waste. (SM1)
- Encourage decorating operatives to use paint recycling facilities where these are offered, for example through local authorities or the paint manufacturer. Beacon will also seek to use recycled paint where this is available. (SM1)
- Minimise the use of fossil fuels with a view to phasing them out altogether from its business fleet. This reduces the risk of spills as well as avoiding the associated greenhouse emissions. (GT1, GT3)
- Phase out and eliminate petrol-powered tools from its estates team equipment. This reduces the risk of spilled fuel as well as the associated greenhouse gas emissions. (EF5)
- Select waste contractors and cleaning firms who are accredited and competent to deal with hazardous materials. Beacon will ensure that their methods and accreditation remains valid on an annual basis. (SM5)
- Eliminate harmful chemicals from its offices, including bleach-based cleaning fluids.

Route Map to Net Zero

Definition of net zero

Net zero does not mean emitting no greenhouse gases at all. Rather, it means that society's greenhouse gas emissions must be brought down to a level where they can be absorbed by natural or mechanical means. This offsetting results in 'net' zero emissions.

It is extremely difficult to design a path to net zero for Beacon, because, as of 2025, there are so many unknowns and uncertainties. For example;

- At what point will the electricity grid in Wales be truly zero carbon?
- Will the mass production of hydrogen make that gas a drop-in replacement for heating gas and vehicle fuel?
- Will the development of carbon capture and storage technology mean that we can continue to emit more greenhouse gases than currently predicted?
- When will we be able to procure zero-carbon building materials, vehicles and other products?
- Will the skills we need be available to decarbonise our homes before any set net zero target date?
- Will budgets and/or grants over the coming years enable us to achieve net zero?
- Will the political environment remain supportive of achieving net zero as a government policy aim?

Therefore, this section is to be taken as a starting point for action in 2025 and the years immediately following. As the uncertainties listed above are resolved, Beacon's planning will need to be revised accordingly.

Because the full decarbonisation of Wales's electricity supply and the large-scale deployment of hydrogen are so uncertain, this current plan assumes electrification of all of Beacon's property as the goal. At present, this is the most certain means available to ensure Beacon is 'net zero ready'.

Decarbonisation of Homes

Getting Rid of Gas

The main source of greenhouse gas emissions from homes comes from using fossil gas for heat and cooking. In 2025, the only zero-carbon fuel certain to be available in the future is electricity. Based on that fact, this document presumes a full electrification of Beacon's homes will make us net zero ready.

As at March 2025, Beacon had circa 8,346 homes in direct management with maintenance liability. This figure does not include communal areas or commercial units. Of these, 6,846 homes had their own gas boiler. Additionally, a further 831 homes were heated with central gas boilers. There were two homes with oil heating and one heated with coal.

621 homes had electric heating. Only 45 homes were heated with heat pumps, although 40 of these had hybrid gas/heat pump systems.

The 621 homes on electric heating could already be taken as net-zero ready, along with the 45 properties on heat pumps. That is assuming that the boilers on the 40 hybrid systems could simply be removed. That makes 666 homes already net zero ready, or 8%.

A quick, albeit expensive, win could be to convert all 831 homes on central gas boilers to ground source array heat pumps. This would decarbonise 10% of Beacon's stock. A date can be set for this of 2040; by which time the UK's Climate Change Committee (CCC) says 50% of homes need to be taken off gas in order to stay within the UK Government's carbon budgets.

This leaves 82% of Beacon's properties on gas.

In order to hit the CCC target of 50% of homes by 2040, Beacon therefore needs to remove gas boilers from a further 32% of the 6,846 single gas boiler heated properties, or 2,191 of its homes. If this work starts in May 2025, over the 176 months to December 2039 Beacon will need to remove an average of 12.5 boilers per month.

This is already an extremely ambitious target, before considering that the remaining 4,655 homes still with gas boilers will need to be treated between 2040 and 2050, or 39 boiler replacements per month for 10 years. It is therefore hoped that hydrogen heating will play a role in the coming years.

Priorities

The challenges of shifting all existing homes away from gas in social housing raises questions about how to programme the work and how to prioritise different homes.

If budgets remain tight and energy prices as they are (i.e. with gas being the cheaper fuel for heating), it makes sense to prioritise newer, warmer homes for heat pumps because no treatment of the building fabric will be required. In older homes which lose heat more quickly, current heat pump technology may actually cost the resident substantially more than their current gas heating because heat pumps run at a lower temperature and may struggle to keep up with heat loss from the home.

Conversely, where grants are available to provide insulation to poorer performing buildings where residents may be struggling financially, then fitting a heat pump alongside the insulation is a sensible option.

In reality, the prioritisation of which properties are treated will change over time; subject to budgets, grants and other financial incentives, void periods, and property and resident circumstances. For the time being, Beacon will continue to make use of Homes as Power Stations funding for electrification and Optimised Retrofit funding for insulation.

Because the Welsh Housing Quality Standard 2023 mandates that all social housing in Wales achieve an EPC rating of 'C' by 2030, Beacon's very worst performing homes will have to be treated first in any case.

Transport

Chargepoint fitting

At the time of writing, the UK Government has set a date for ending the sale of petrol and diesel vehicles in 2030, although the sale of hybrid vehicles can continue until 2035. Although this means that some Beacon residents are likely to have petrol vehicles for many years after 2030 (the average lifespan of a car in the UK is 12 – 14 years with many lasting much longer than that), from that year the vast majority of cars will require facilities to charge their batteries so as to be practical in use. Beacon has already started to install chargepoints across its schemes and is an Office for Zero Emission Vehicles (OZEV) accredited installer. But, with the numbers of electric vehicles likely to increase exponentially in the coming years, not least for residents with Motability entitlements,

increasing access to chargepoints is a priority. As a result, Beacon pledges to retrofit at least 10 chargepoints per year, with all of its new-build homes having access to a chargepoint from handover. Beacon will plan its work considering resident needs as well as provision by third parties in the localities of its housing developments.

Fleet

The UK Government's petrol and diesel vehicle ban from 2030 also applies to vans and other lighter commercial vehicles. Beacon has already begun the process of electrifying its fleet of maintenance vehicles, with all of its Estates teams using electric vans as of 2025. Because Beacon leases all of its vehicles, it will have fully electrified its fleet by 2034 (depending on start dates and lease lengths of the final Beacon non-electric vans).

Electrification of office heating

Beacon's office at Compton Road, Tonypandy is already a single-fuel electric site. It is therefore ready for net-zero once the UK's electricity grid is powered entirely by renewable energy. Beacon's Swansea office is heated by several large gas boilers which serve the building's five storeys, not just the floors occupied by Beacon. It is anticipated that these boilers, in situ since 2012, will soon be nearing the end of their operational life. Supposing these boilers last for 20 years, Beacon will therefore be looking to replace them with an electrified system by 2032. In the meantime, Beacon's facilities colleagues will begin feasibility studies for the new heating system; whether mechanical ventilation and heat recovery (MVHR), heat pumps or something else would be most appropriate and practical for the building and its users.

Supply chain

The United Kingdom Geen Building Council (UKGBC) notes that embodied carbon accounts for around 20% of the UK's emissions associated with the construction and refurbishment of buildings. At present, it is not possible to construct and refurbish buildings using certified net-zero products. Despite this, Beacon pledges to monitor its procurement to minimise the carbon footprint of the construction materials it uses and goods it purchases. Beacon will include these emissions (its 'scope 3' emissions) in its carbon reporting and seek to continually improve the data gathered to calculate scope 3.

Beacon has been a member of the Tai Ar Y Cyd consortium since the latter's inception. Tai Ar Y Cyd is a group of housing associations and councils who worked together to standardise social housing house types which will be as close to net zero as possible. Beacon will use these and similar house types in its construction programme to reduce the embodied carbon of its built assets.

Adaptation

Adaptation in this strategy is based on the Committee on Climate Change's (CCC) Third UK Climate Change Risk Assessment, published in 2021 (National summaries - UK Climate Risk), as well as the UK government's Third National Adaptation Programme (NAP3, The Third National Adaptation Programme (NAP3) and the Fourth Strategy for Climate Adaptation Reporting), published in 2023. That report highlights that mitigation (reducing the severity of climate change's effects by reducing emissions) is no longer sufficient. Wales has started to see the effects of climate change at a little over 1ºc of warming, so steps must be taken now to deal with unavoidable climactic changes identified in the CCC report.

Wales's Climate Adaptation Strategy shows that climate change adaptation in Wales will be led by the Welsh Government. That document also notes the importance of partnership working with responsible government bodies and other organisations to provide an effective response. Beacon does not have the expertise and resources to provide all adaptation measures alone, so the importance of partnership working and whom to call on for advice and assistance is noted here.

The table below summarizes the changes that have been observed in Wales under the 1.2ºc warming to date.

Variable	Observed Change in Wales
Average annual temperature	Increase in 0.9°C from mid-1970s to mid-2010s
Annual mean rainfall	Increase in 2.0% from mid-1970s to mid-2010s
Sunshine	Increase in 6.1% from mid-1970s to mid-2010s
Weather extremes	UK-wide increase in extreme heat events Little evidence yet on changes in extreme rainfall
Sea level rise	UK-wide increase ≈1.4mm per year since 1901 (16cm to date)

In the table below, the 'best case' scenario assumes a dramatic reduction in global emissions in the near future. The 'predicted' values show changes under the world's current and projected rate of emissions reduction. These values only apply to Wales.

	2050s (best case)	2050s (predicted)	2080s (best case)	2080s (predicted)
Annual Temperature	+1.2ºc	+1.1ºc	+1.3ºc	+2.3ºc
Summer Rainfall	-15%	-15%	-18%	-26%
Winter Rainfall	+6%	+5%	+7%	+13%
Sea Level Rise (Cardiff)	22cm	28cm	43cm	76cm

General

Temperature risks include heatwave effects on people's health and wellbeing, overheating in well-insulated homes. Invasive species such as mosquitos may spread through the UK, spreading malaria and dengue fever for example.

Rainfall risks include damage to buildings and flooding in winter. In the summer, periods of reduced rainfall could lead to prolonged periods of water scarcity.

Weather extremes of high and low rainfall and high temperatures will be more frequent. Rainfall will be more intense. Days where somewhere in the UK experiences temperatures over 40°c will increase in frequency from once every 100-300 years to once every 3.5 years in a high-emission scenario.

Sea level rise increases flood risks from storm surges and high tides, as well as salination of farmland and potable water supplies.

Associated Risks

- Risks of overheating on residents. But, cold snaps are still likely.
- Risks of food availability and price increases where shortages occur.
- Risk of damp and mould in properties in times of increased rainfall and lower temperatures.
- Risk of flooding from marine, fluvial sources and overwhelmed drains.
- Risk of lightning from storm events causing fire.
- Risks of water supply contamination from floods or high tides, interruption to water supply and restrictions on water use.
- Increased insurance costs associated with flooding, wildfires, lightning fires, dampness, structural damage, legal liabilities.
- Loss of business productivity; impacts on site at new-build projects, slower work on Beacon's estates, lower staff output in hot offices.
- Increased maintenance costs associated with remediation from flooding, overheating, high winds.
- Migration and increased human mobility resulting in pressure on housing.
- Supply chain disruption abroad and in UK due to climate change conditions.
- Damage to local transport infrastructure due to storm events.

Adaptation Measures

Short Term (by 2030)

- GIS mapping with NRW flood maps to accurately ascertain and monitor flood risk to stock (Flood and Coastal Erosion Risk Maps).
- Permeable paving.
- Tree planting.
- Break up hardstanding to create green spaces.
- Up-front planning for new buildings (higher ground floor levels, rainwater attenuation).
- Training staff to plan for and deal with emergency situations.
- Firebreaks between vulnerable buildings and vegetation.
- Foodbanks for times of farming disruption and high prices.
- Stockpiling of sandbags.
- Legionella awareness and prevention for high temperatures.
- Landscaping incorporating more drought-resilient species.

- Larger and more water butts to preserve young trees etc. during drought.

Medium Term (by 2040)

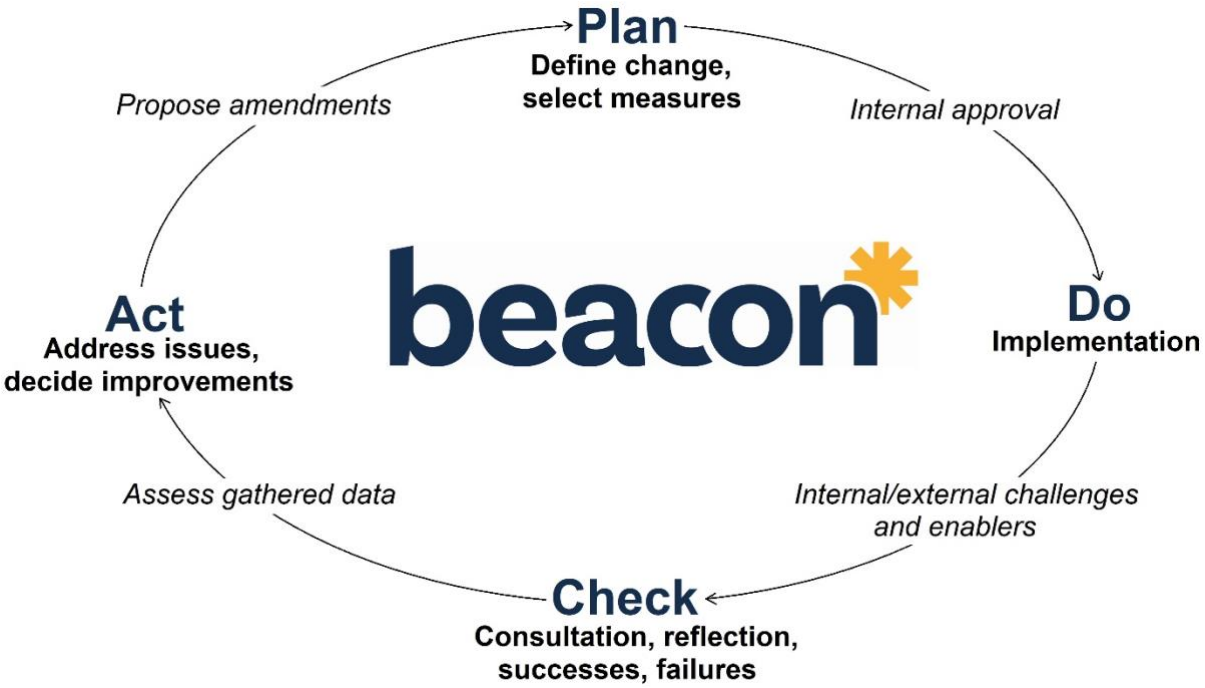
- Early warning systems for residents.
- Retrofit air conditioning to offices.
- Lighter coloured cladding and roofs to reflect strong sunlight.
- Provision of flood barriers on vulnerable sites.
- Retrofitting of SUDS.
- Creation of business continuity plans.
- Add shading to windows of existing buildings (brises soleil, trees).

Long Term (by 2050)

- Plan for decommissioning of some homes and their replacement.
- Provision of innovative emergency and temporary accommodation for climate refugees and people whose homes overheat.

Maintaining this strategy

The climate emergency is a rapidly developing situation with many unknowns at the time this strategy was created. This will not be Beacon's last iteration of a sustainability strategy before the net zero target is achieved. It is therefore imperative that this current document include mechanisms for updating the current content, as well as eventually replacing this document completely as it becomes inadequate or outdated.

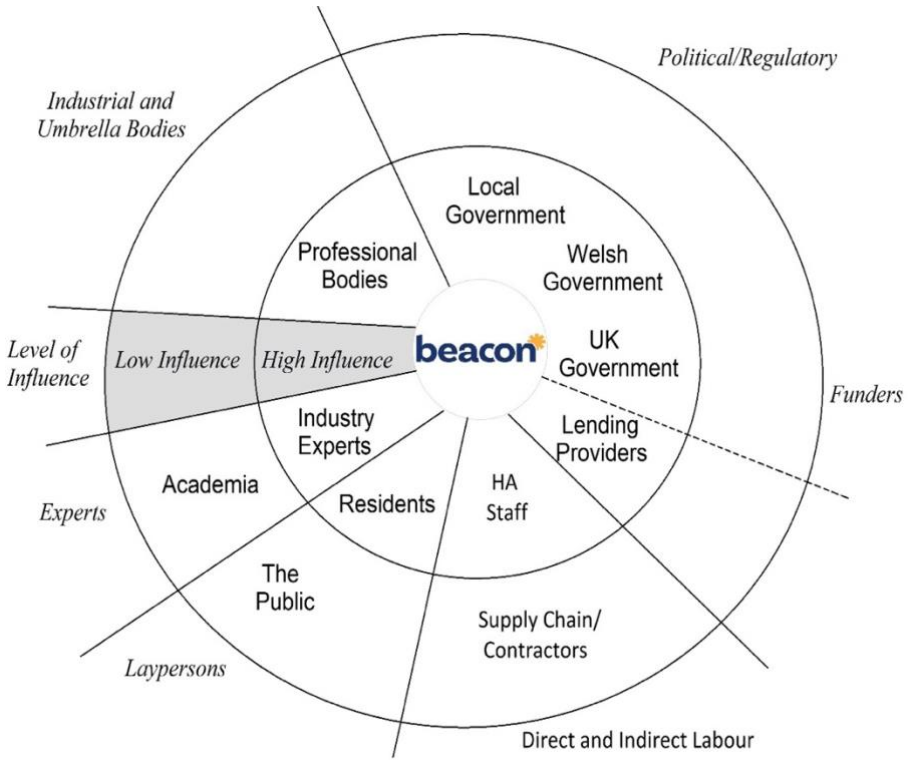


In line with Beacon's systems approach to business process design, this strategy adopts a 'plan-do-check-act' development cycle.

- The 'plan' phase involves creating or changing the text and content of the sustainability strategy. In the first cycle, the draft strategy is created before it is approved through Beacon's formal internal mechanisms. In future cycles, it will be that a revised text is approved to replace a previous version.
- The 'do' phase is when the latest version of the strategy is implemented and starts to affect the actual work completed at Beacon. It is at this point that staff begin to follow the procedures required by the strategy, and to gather the data needed to report against the selected measures. Any unforeseen difficulties in implementing the strategy will become apparent at this point.
- The 'check' phase begins some time after the strategy has been introduced, after staff have had time to adapt to new ways of working introduced by the strategy. Affected staff are then consulted to find out the difficulties they encounter in operating to the strategy, as well as to gather their thoughts on how matters could be improved or developed. The information gathered at the 'plan' stage is then synthesised to inform the next step.
- The 'act' session begins when all data from the 'check' phase has been gathered. Simpler recommendations and requests from staff can be acted upon immediately, whereas more significant issues may require changes to the strategy document itself. These changes will be taken forward to the next 'plan' phase, as the cycle begins again.

The 'plan-do-check-act' cycle is common to systems methods and gold-standard accreditations such as ISO14001 (Environmental Management Systems). It has been proven to be an effective model for change and effective management. Because of the evolving nature of the climate change and the need to adapt to changing circumstances, the cyclical approach is a simple yet thorough mechanism to ensure that this sustainability strategy remains effective and workable.

Stakeholders and Communications



As a not-for-profit business rooted in the communities it serves, Beacon's organisational boundaries are somewhat permeable, with numerous stakeholder groups being influential upon, and affected by, Beacon's activities. Any sustainability strategy for Beacon must therefore take into account the potential impacts and benefits that a drive to net zero might have upon those stakeholder groups.

High Influence

UK Government

Although social housing is devolved to the Senedd in Wales, the UK Government still sets the Senedd's budget levels and environmental targets for the whole UK. The UK government therefore has a high level of influence upon Welsh social housing policy, if not a high level of interest.

Welsh Government

The Welsh Government is the main funder and regulator of social housing in Wales, as well as the owner of net zero targets for Wales. As housing associations manage 1 in 10 homes in Wales, the Welsh Government is naturally influential and interested in how housing associations manage the transition to net zero.

Local Government

Local government oversees planning departments, SUDS Advisory Boards and is a statutory consultee for many processes. They are crucial partners in regeneration and are subject to the Well-being of Future Generation Act 2015.

Lending Providers

Beacon's lenders actively look for environmental, social and governance (ESG) performance when looking to invest. This strategy is a crucial indicator of Beacon's commitment to ESG goals. Beacon cannot develop new homes without private finance and securing the best loan terms available by working with lenders is vital to the future of Beacon's operation.

HA Staff

Beacon's staff are the agents who will implement this strategy on a day-to-day basis. It is crucial that they are kept informed of their obligations and are given the opportunity to contribute to the development of this strategy.

Residents

Residents are the ultimate users of Beacon's products – the homes (and commercial units) it leases. The way they use their premises is therefore a determinant of Beacon's efforts to reduce its carbon footprint. They must be engaged if the implementation of this strategy is to be a success.

Industry Experts

Beacon can never have all of the expertise it requires to achieve the aims of this strategy in-house. Therefore, external expertise is essential and the influence of those external experts is indispensable.

Professional Bodies

Beacon is an active member of networks such as Community Housing Cymru, Chartered Institute of Housing, TPAS and Tai Pawb. All will have opinions of what Beacon needs to be doing to achieve decarbonisation and all provide networks for the sharing of expertise and peer support.

Low Influence

Academia

Beacon has a history of participation in research projects which align with its purposes. Beacon will continue such collaborations and will take advice from academia where it is appropriate.

The Public

The built environment is a public good, and therefore Beacon works for all members of the community who use and even walk by its property. Beacon will take on board the views of the public and consult with them where necessary.

Supply Chain/Contractors

Beacon cannot achieve anything without the involvement of its suppliers. Therefore, Beacon will seek to influence its suppliers and contractors, whilst acknowledging the advice they may be able to provide back.

Legislation and External Policies

Environment (Wales) Act 2016

Climate Adaptation Strategy for Wales

Well-being of Future Generations Act 2015 - Future Generations Wales

Technical advice note (TAN) 15: development, flooding and coastal erosion | GOV.WALES

Building regulations: approved documents | GOV.WALES

Development quality requirements for housing associations and local authorities: 2021 | GOV.WALES

Welsh Housing Quality Standard 2023 | GOV.WALES

Climate Change Act 2008

Environment (Principles, Governance and Biodiversity Targets) (Wales) Bill (2025)

Beacon Documents

Corporate Plan

Social Value Strategy

Procurement Policies/Standing Orders

Development Strategy

Asset Management Strategy