ACT'S INITIAL RESPONSE TO TDC CARBON PLAN PART 1

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Section 1. Introduction

This is a first pass response to TDC's plans to meet their statutory and declared objectives to mitigate Climate Change.

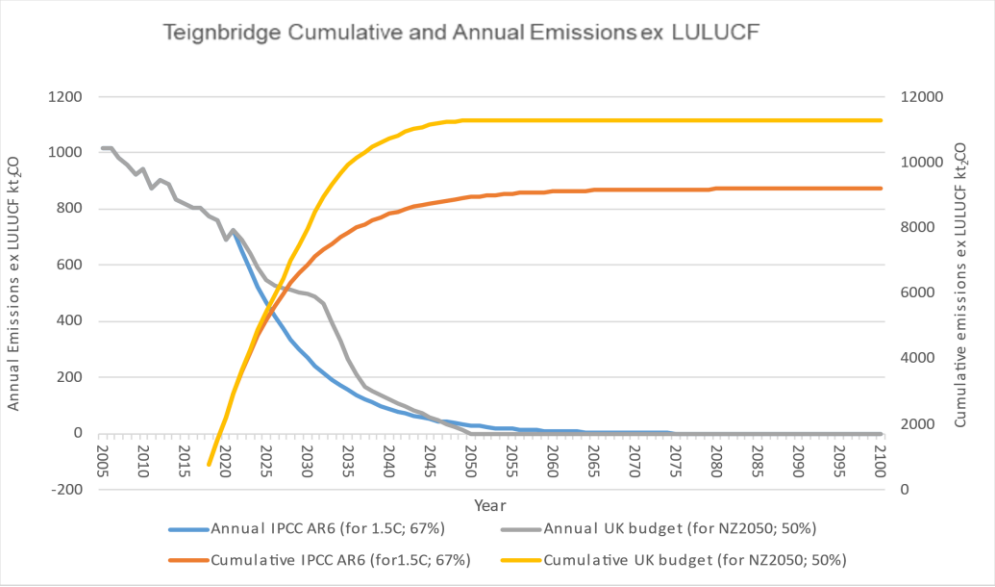
ACT welcomes this long-awaited Carbon Action Plan. We believe it is an essential first step in delivering on TDC's 2019 emergency declaration to be a Net-Zero district by 2025. Indeed, ACT was formed to support TDC in delivering this declaration and has been working cooperatively with the district council and local councils in Teignbridge since then.

Inevitably, given only a few days, our initial comments will be to highlight significant points without going into too much detail. We would welcome the opportunity to discuss all these and other points in the near future as part of the plan's evolution and roll-out.

Our principal reference and guiding target is the UK government's adoption, in law, of the Climate Change Committee's (CCC's) 6th Carbon Budget. This is, therefore, a statutory target. It calls for a 78% emissions reduction by 2035 compared to 1990, and so Teignbridge has a duty to achieve this.

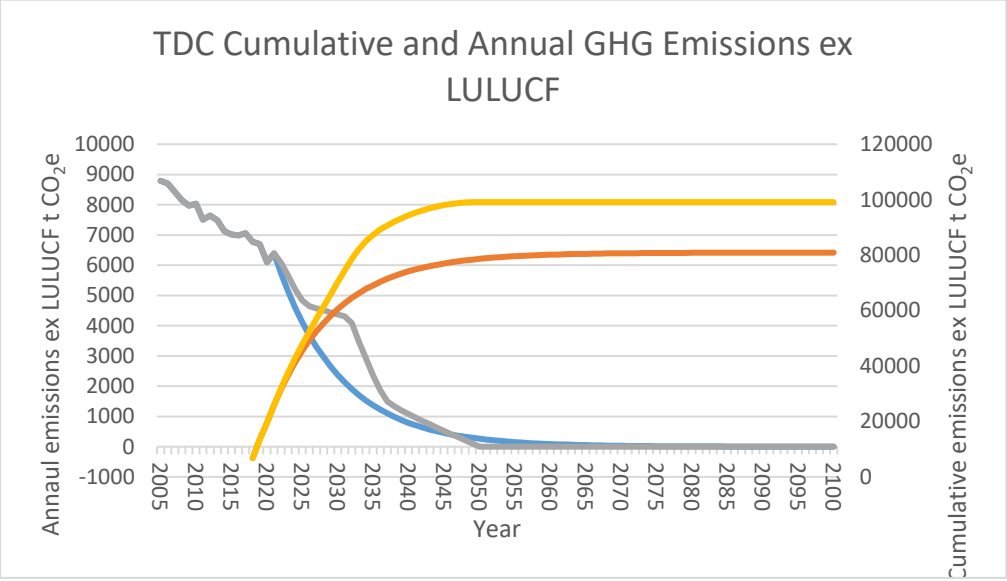
The Carbon Budget is a critical concept, which needs to be understood and applied when setting emissions targets. The key point is that the cumulative emissions must be kept below the budget total. To do this, the original annual emissions targets must be achieved. If any are missed, the shortfall must be made up in later years, by reducing emissions faster. We return to this point later. We would also be very happy to explain the carbon budget to members in more detail, if that would be helpful.

The following chart shows the emissions required to meet the carbon budget for Teignbridge. The grey line shows how sharply annual emissions must fall to meet the target. The yellow line shows the cumulative emissions the district will have made if it achieves its annual targets (and that there is zero increase after 2050).[1]



[1] The blue and orange lines give the corresponding information if the district aimed to meet the more stringent target agreed at the Paris Accord, which we discuss later in this response.

The following chart represents the same level of emission reduction targets applied to TDC's own estate consumption emissions, i.e. including scope-3 emissions (same legend as above).



Section 2. Plan Summary

It is excellent to see standards for:

1. net zero and low carbon in new dwellings and commercial buildings that you construct,
2. quantifying and reducing embodied carbon in new building projects.

Standards for phasing out fossil fuel consumption in buildings that you own and operate is useful but does not in itself ensure the necessary reduction in GHG emissions. This is because it could simply shift emissions elsewhere albeit potentially at a reduced overall level of emissions.

The actions highlighted in the summary are excellent, namely to:

- enhance data capture,
- increase the scope of emissions reporting,
- increase in-house expertise in low carbon concepts,
- work towards becoming a carbon literate organisation, and
- identify where there is further work needed to enhance your net zero strategy.

Looking at the details of the 39 actions, we would hope to see a consistent approach and level of detail to each. The approach should include a clear statement of the action required, its timescale and the consequent reduction in emissions expected. Also, as with any high-quality action plan, this plan should include a requirement to publish a regular review of progress towards achieving each action.

The targets highlighted in the summary are an important part of this plan, specifically:

- phasing out the supply of natural gas,
- increasing the supply of renewable energy,
- increasing energy efficiency in leased accommodation,
- increasing recycling rates, and
- increasing supply chain engagement to reduce indirect emissions.

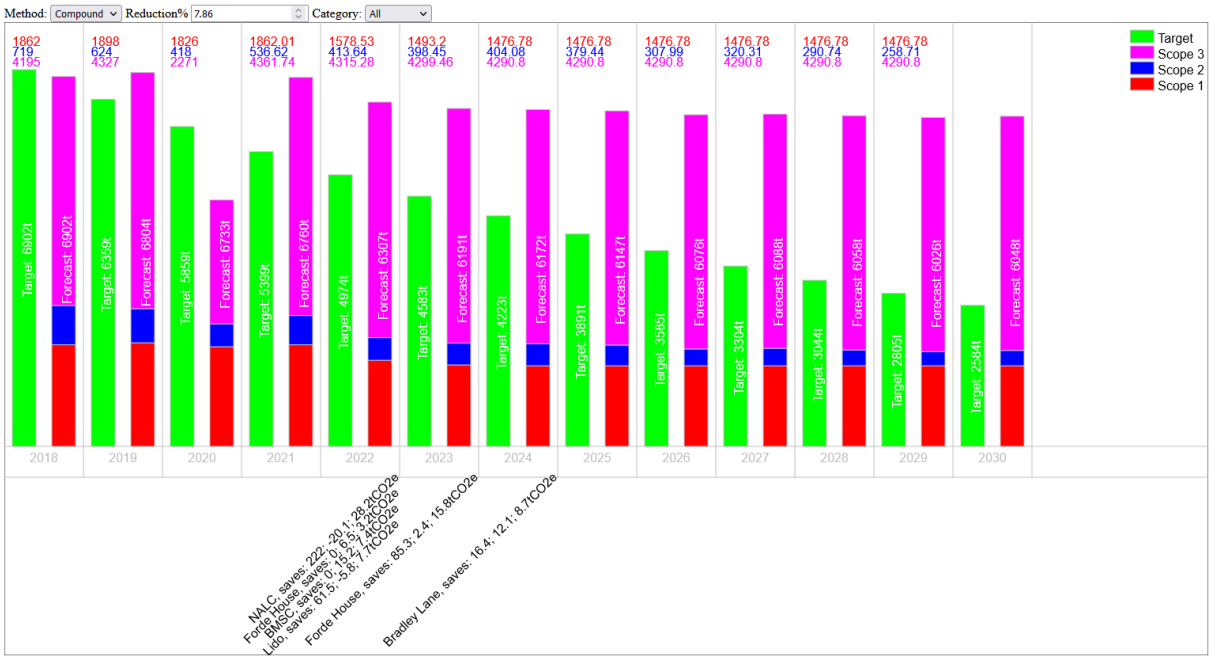
Regarding the detailed descriptions of the 11 targets, several could include their contribution to meeting the overall statutory target set by the UK government. We have included a proposed representation of these in the next chart.

Although scope-3 emissions are considered, and actions set to reduce these, they are excluded from the overall reduction target. This is completely at odds with having declared a Climate Emergency and the statutory carbon budget set by government. Given that the majority of the council's emissions are defined as scope-3 (see chart below), decisive and measurable actions/targets must be set to reduce this to remain within the overall statutory budget.

It is good to see that some short-term targets (e.g. by 2025) have been set. This is essential as the statutory reductions in 2019-2022 may not have been met (the data for 2021 emissions has not been published), so the speed of GHG reduction needs to accelerate to make up for that lost opportunity.

We have included a response to the carbon emission targets set by the plan in the next section.

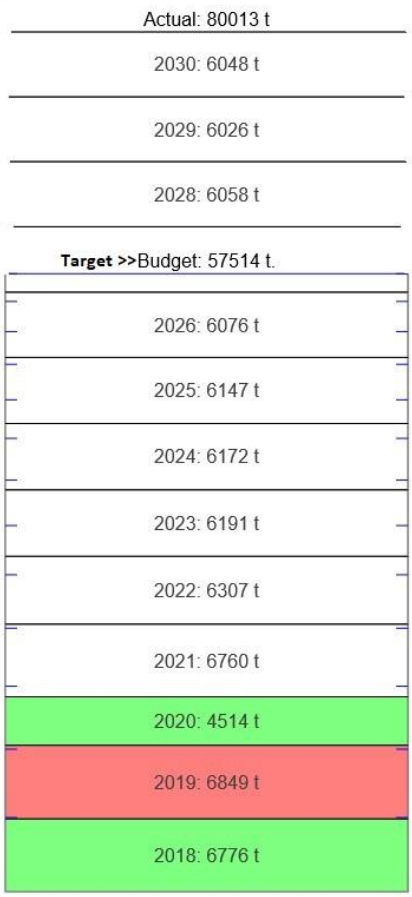
This chart shows the actual (pre 2022), planned (post 2022) and target government carbon emission from the reference date to 2030. The planned reductions are based on the information provided in TDC's current version of the Carbon Plan Part1.



The green bars in the chart show the target emissions for each year which will be required to comply with the statutory budget. The other bars show the annual emissions proposed under the plan. It is clear that the proposed emissions far exceed the statutory targets each year.

This is a significant shortcoming of the plan. Although we understand that the plan will evolve with actions that reduce emissions, tracking these against the budget and completed actions will be critical.

The following “emissions-beaker “representation of the annual actual and planned actions from the plan shows how much of the statutory budget remains before the 1.5 C , irreversible, climate tipping point is reached. It shows that even if the plan is followed, emissions will exceed the budget by 2026!



Section 3. Carbon Budget

The section on the carbon budget states "The Part 1 Plan draws on elements of the Science Based Targets Initiative (SBTI) Corporate Manual 19 . The SBTI recommends a minimum absolute carbon contraction of 4.2% per annum for Scope 1 and Scope 2 emissions." The SBTi manual talks about a linear reduction of between 4.2% and 6% between 2022 and 2035 being compatible with 1.5C.

The difficulty with this is that the SBTi targets are based on a study done in 2018 when there was assumed to be a 0.63 C increase remaining before reaching 1.5 C. Unfortunately, the actions needed to reduce emissions were not taken in time, and so the subsequent temperature rise means that there is only ~0.35 C remaining before reaching the 1.5 C tipping point. That means the SBTi remaining budget is roughly half the 2018 one. Much greater annual reductions are now needed to meet the target set in 2018. TDC's plan needs to take this into account.

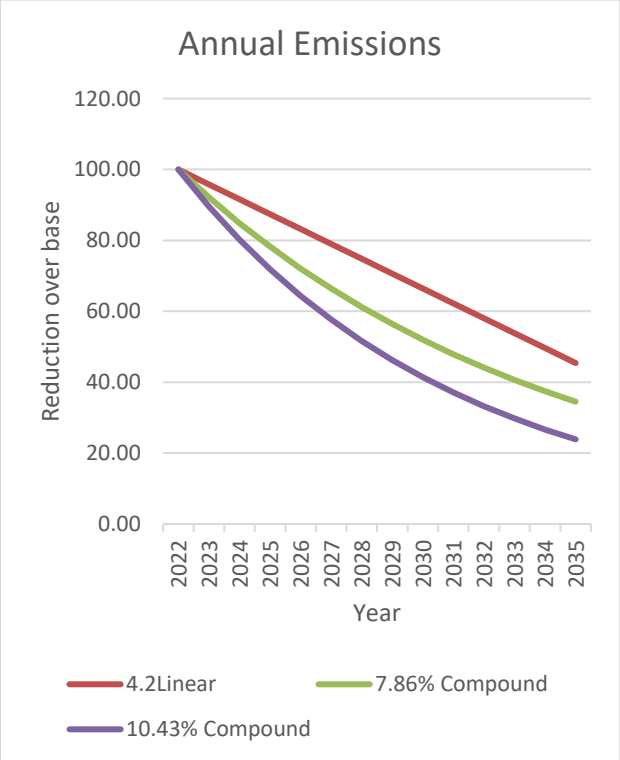
To reinforce the importance of this, it is worth explaining the risk attached even to the statutory target. Even if it is achieved (globally), the CCC has estimated that we will only have a 50/50 chance of avoiding runaway climate change. The Paris Agreement, signed up to by 196 parties at COP21, suggests a 67% chance. While the UK statutory target requires an annual reduction rate of 7.86%, the Paris accord would require 10.43%.

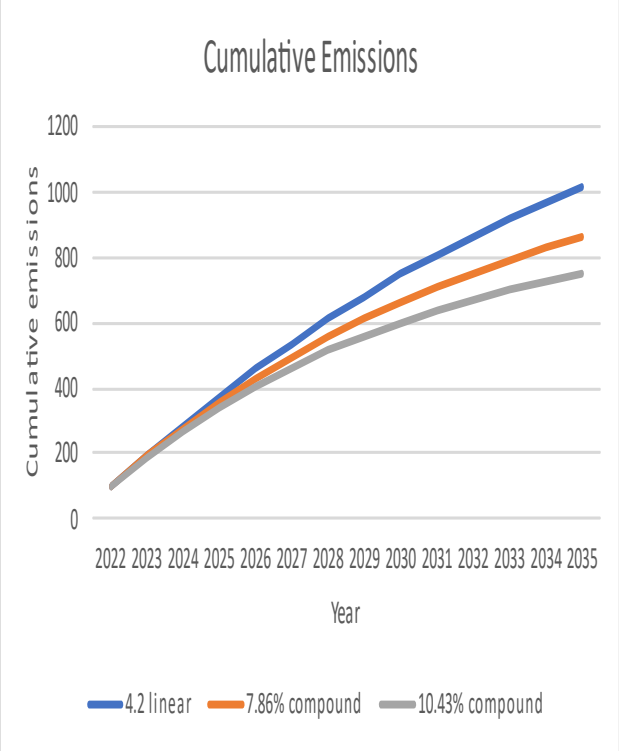
The amount of emissions reduction required for the 4.2%, 7.86% and 10.43% rates are shown in the annual emissions chart at left, below. The corresponding cumulative emissions are shown in the table at right. The area under the curved lines in the "Annual Emissions" chart represents the total GHG emissions, for each of the three reduction rates,. These totals are then represented in the "Cumulative Emissions" chart.

We are extremely concerned that the plan's GHG targets, certainly those that have been provided in the document, fall significantly below even the government's more moderate statutory requirement.

AS A MINIMUM, THE PLAN MUST USE THE GOVERNMENT'S STATUTORY CARBON BUDGETS AS A TARGET. It should then show how the plan will meet this overall target.

Comparison of emission reduction rates





Section 4. Targets, Actions and Policies

To make this 78-page document more accessible to those who don't have the time to go through it in detail, it may be useful to include an appendix to the Targets, Actions and Policies as follows:

They have been extracted from the text of the plan. Each item has a significant amount of accompanying text, which should be read to get a full understanding of what is being discussed.

It may also be useful to state that in the earlier part of the document is a review of the TDC estate, which estimates emissions for each building, including those where works are currently underway.

1.1 11 Targets

ID	Description of target	Text reference
TARGET 1	Achieve an 88% reduction in natural gas consumption across buildings that we own and operate by 2025 by switching gas-fired boilers for electrified heating systems.	p23;5.1.2 Fossil fuel phase down
TARGET 2	Generate the equivalent of 20% of our electricity needs through on-site generation relative to 2018/19 levels by 2025.	p23;5.1.3 Renewable energy
TARGET 3	Procure a minimum of 80% of our residual electricity demand from renewable energy via our utility supplier by 2025.	p23; 5.1.3 Renewable energy
TARGET 4	Offset up to 100% of our residual electricity demand by 2030 through financing new off-site renewable energy in Devon by 2030.	p23; 5.1.3 Renewable energy
TARGET 5	Reduce the carbon footprint of the buildings and estate that we own and operate by 90% by 2030 and offset the residual carbon footprint of 10% using carbon offsetting.	p25;5.1.4 Residual emissions and offsetting
TARGET 6	Aim to achieve a recycling rate of 65% by 2030 at Forde House, the Depot, our Leisure Sites, Market Hall, and Teignbridge Business Centre.	p52;7 Carbon Reduction Plan – Waste, Recycling, Water and Sewage
TARGET 7	Work with our private sector landlords to improve the energy efficiency of our leased building stock and work to bring all dwellings up to an EPC rating C by 2030.	p66;Carbon action plan accomodation
TARGET 8	Work towards achieving net-zero supply chain emissions by 2050 at the very latest by setting standards for measuring and reducing embodied carbon and engaging our supply chain partners.	p68;10 Carbon reduction supply chain
TARGET 9	Become a leading authority in reducing embodied carbon in construction projects, and support Teignbridge to become a testbed for innovative low carbon construction techniques.	p68;10 Carbon reduction supply chain

TARGET 10	Engage with our top five repeat suppliers by 2023 and encourage them to develop a corporate net-zero strategy and reduce emissions in their value chain.	p72; 10 Carbon reduction supply chain
TARGET 11	Engage with our top ten repeat suppliers by 2024 and encourage them to develop a corporate net-zero strategy and reduce emissions in their value chain.	p72; 10 Carbon reduction supply chain

1.2 39 Actions

ID	Description of action	Text reference
ACTION 1	Implement an energy efficiency programme to reduce the demand for heating and electricity consumption in our buildings and car parks.	p21; 5.1.1 Energy Efficiency
ACTION 2	Identify a project to implement and test the design standard CIBSE TM59, to develop in-house expertise in developing climate resilient homes.	p47;5.3.1 Dwellings
ACTION 3	Where practical and through applying good Estate Management principles, to support our tenants to install energy efficiency measures, low carbon heating, renewable energy, and low carbon transport infrastructure such as EV charge points.	p48;Leased Estate
ACTION 4	Develop a depot masterplan to determine the future of our depot site on Brunel Industrial Estate by December 2022.	p49;6 Carbon Reduction Plan Fleet
ACTION 5	Develop a vehicle fleet decarbonisation pathway by December 2022 to determine how we can transition away from diesel-fuelled vehicles to low carbon alternatives.	p50;6 Carbon Reduction Plan Fleet
ACTION 6	Implement a waste and recycling audit at our main sites identified above. We will first focus on hot spots at Forde House and Market Hall, and create a baseline for staff, members, and public recycling behaviours. The audit will also assess existing waste and recycling facilities, guidance, and communications, and determine what measures we can implement to encourage better waste and recycling behaviours.	p52; 7 Carbon Reduction Plan – Waste, Recycling, Water and Sewage
ACTION 7	Review practices to measure waste and recycling volumes and seek to increase accuracy in emissions reporting.	p52; 7 Carbon Reduction Plan – Waste, Recycling, Water and Sewage
ACTION 8	Develop a waste and recycling communications to help our staff, Members and visitors to reduce their waste and recycling carbon footprint and increase recycling rates.	p52; 7 Carbon Reduction Plan – Waste, Recycling, Water and Sewage

ACTION 9	Transition from paper billing to digital billing for water and sewage to enhance data capture and emissions reporting.	p53; 7 Carbon Reduction Plan – Waste, Recycling, Water and Sewage
ACTION 10	Deploy water data loggers to characterise water consumption profiles and quantify water wastage rates and increase the provision of water-efficient water outlets including taps and showers.	p53; 7 Carbon Reduction Plan – Waste, Recycling, Water and Sewage
ACTION 11	Run a simplified staff travel survey for staff working from Forde House following completion of the Forde House decarbonisation scheme and reassess our staff commuting carbon footprint.	p54;8.1 Staff commute carbon footprint
ACTION 12	Review the members travel survey format and re-run the survey to enhance data capture following completion of the Forde House decarbonisation scheme.	p54;8.1 Staff commute carbon footprint
ACTION 13	Address staff perceptions regarding the perceived benefits of driving and consider implementing a low carbon transport app to highlight the benefits of active and shared transport modes including cost, time, and carbon.	p56;8.1 Staff commute carbon footprint
ACTION 14	Explore employee incentives schemes to promote the use of all low carbon transport modes.	p56;8.1 Staff commute carbon footprint
ACTION 15	Continue to promote our cycling and walking infrastructure projects though our staff communications.	p57;8.1 Staff commute carbon footprint
ACTION 16	Review our shower provision to determine whether they are suitable for staff needs, and ensure the lockers provided as part of the Forde House decarbonisation scheme are compatible with cycling to work.	p58;8.1 Staff commute carbon footprint
ACTION 17	Continue to promote the Cycle to Work Scheme through our staff communications to enable access to good quality cycling equipment, and encourage staff to include cycle accessories including helmets, lights, visibility gear and mud guards as part of their cycle to work scheme purchase.	p59;8.1 Staff commute carbon footprint
ACTION 18	Promote the use of e-bikes and e-scooters to help staff overcome the hilly geography of our district and consider running e-bike demo days for staff.	p59;8.1 Staff commute carbon footprint
ACTION 19	Promote the ability for staff to claim work time whilst travelling on public transport, subject to a discussion with their line manager	p59;8.1 Staff commute carbon footprint

ACTION 20	As part of the Devon Climate Emergency partnership, work with our partners across Devon to enhance local bus and train services to ensure that they are accessible, affordable, timely and reliable.	p59;8.1 Staff commute carbon footprint
ACTION 21	Use the results of the GIS staff commuting assessment to help target staff communications to increase the uptake of low carbon transport modes, and to identify opportunities where enhancements can be made to improve public transport provision.	p60;8.2 Low carbon commuting
ACTION 22	Develop proposals for green car loans and EV salary sacrifice schemes to help staff gain access to affordable financing.	p60;8.3 Electric vehicle strategy
ACTION 23	Update our EV charging strategy to create a plan to deliver workplace EV charging at our main employment sites.	p61;8.3 Electric vehicle strategy
ACTION 24	Explore opportunities for shared low carbon mobility services such as pool cars and car clubs.	p61;8.3 Electric vehicle strategy
ACTION 25	Continue to monitor the benefits of working from home as part of a staff travel strategy for consideration in business decisions.	p62;8.4 Working from home
ACTION 26	Better 2022 managers to continue to promote the sustained use of virtual meetings to prevent the need to travel to meetings and site surveys.	p62;8.5 Claimed mileage
ACTION 27	Promote the use of low carbon transport travel in business travel and the ability for staff to claim transport fares against expenses.	p62;8.5 Claimed mileage
ACTION 28	Transition from paper billing to digital billing for leased sites to enhance data capture and emissions reporting.	p65;9 Carbon Action Plan Accommodation
ACTION 29	Work to reduce the carbon footprint of temporary housing sites that we own, including Albany House and Luscombe House.	p65;9 Carbon Action Plan Accommodation
ACTION 30	Explore opportunities to fund energy efficiency improvements through the LADS and ECO energy efficiency schemes.	p66;9 Carbon Action Plan Accommodation
ACTION 31	Refer tenants to the Local Energy Advice Partnership to arrange a free energy efficiency consultation.	p66;9 Carbon Action Plan Accommodation
ACTION 32	Work with our Devon Climate Emergency partners and social housing providers to enable and test innovative approaches to whole-house retrofit, accelerate the delivery of renewable energy, and develop a carbon offset market centred on fast-tracking low carbon retrofits.	p67;9 Carbon Action Plan Accommodation

ACTION 33	Move away from spend-based scope 3 emissions reporting based on ONS and Table 13 emissions factors and work towards activity-related emissions factors and evaluations.	p68;10 Carbon reduction supply chain
ACTION 34 –	Identify and deliver a pilot construction project to test the viability of meeting embodied carbon benchmarks. This action will help us to develop in-house expertise in low carbon construction techniques, reduce our scope 3 carbon footprint, and prepare for future changes to national building regulations. The proposed target benchmarks are: • Offices 600kgCO_2/m^2 • Dwellings 500kgCO_2m^2 • Educational Buildings 500kgCO_2m^2 • Retail and Industrial Units 550kgCO_2m^2	p71; 10 Carbon reduction supply chain
ACTION 35	Develop a simplified embodied carbon calculator tool to help quantify embodied carbon in projects with a value of between £100,000 and £999,999 covering medium scale construction and refurbishment projects.	p71; 10 Carbon reduction supply chain
ACTION 36	Better 2022 managers to identify where there may be efficiencies to reduce spend on goods and services in their business plans.	p72; 10 Carbon reduction supply chain
ACTION 37	Continue to engage with our partner local authorities, academic institutions, and the Local Government Association to develop and share best practice in scope 3 emissions reporting.	p72; 10 Carbon reduction supply chain
ACTION 38	Develop a carbon offsetting strategy aligning with the emissions reduction pathway for our buildings and vehicle fleet.	p73; 11 Carbon Action Plan Offsetting
ACTION 39	Review progress towards carbon budgets and aim to limit cumulative emissions to levels consist with 1.5°C of global warming and well below 2.0°C of global warming.	p76;12 Our Carbon budget

1.3 4 Policies:

Policy	**Policy Description**	Text Reference
POLICY 1	**Fossil fuel phase down policy** Following adoption of this plan, we will operate a fossil fuel phase down policy. This means that for the top 14 buildings identified in Section 5.2, when gas-fired heating systems reach end-of-life, they will be replaced with low carbon alternatives. We will make best endeavours to decarbonise heating in listed buildings such as Market Hall and Old Forde House, however limitations governed by	p23; 5.1.2 Fossil Fuel phase down

	heritage status may prevent us from fully phasing out fossil fuel consumption in these buildings. Oil-fired heating systems may be switched to natural gas-fired heating systems where either the building thermal fabric is wholly unsuitable for low carbon heating systems, or the building or asset is due for redevelopment with a specific date set for decommissioning. Our building maintenance programme will align with this policy, and a pipeline of proactive business cases will be developed in anticipation of funding opportunities.	
POLICY 2	**Net Zero Dwellings** Projects involving the construction of new dwellings under Building Regulations Part L1A and requiring planning consent following adoption of this Part 1 Plan will need to achieve net zero regulated carbon emissions, subject to technical viability; to achieve this standard, the Dwelling Emissions Rate (DER) should be less than or equal to 0.0 kgCO 2 /m 2 /year based the latest Standard Assessment Procedure (SAP) methodology (e.g. SAP 10). For certain configurations of flats or constrained parcels of land where it is not possible to balance regulated energy demands with on-site renewable energy generation, this policy will need to be relaxed to allow for the reasonable level of carbon reduction, subject to financial and technical viability.	p46;5.3.1 Dwellings
POLICY 3	**Low Carbon Buildings – non-domestic** Projects involving the construction of new buildings covered by Building Regulations Part L2A will be required to minimise regulated carbon emissions subject to technical and financial viability. This policy will influence decisions made at the RIBA Stage 1 preparation and brief stage to maximise the potential for carbon reduction whilst supporting scheme viability. The level of carbon reduction will be indicated and agreed at the planning pre-application stage, and a carbon reduction plan will be submitted as part of the formal planning submission, including a robust and costed evidence base for options considered to reduce regulated carbon emissions.	p48;5.3.2 Commercial buildings
POLICY 4	**Embodied Carbon – large projects** Projects involving the construction of new buildings and requiring planning consent with an anticipated project value of £1 million or more, will be required to produce a lifecycle carbon	p70;10 Carbon reduction Supply Chain

	emissions assessment based on the RICS Whole Lifecycle Assessment Methodology (BS EN 15978). The emissions assessment should include emissions from “cradle” to “practical completion” (modules A1 to A5). This policy will assist design teams to identify carbon hotspots and opportunities to reduce embodied carbon through applying the LETI principals set out below. Provisional embodied carbon emissions estimates will be produced at the RIBA Stage 2 Concept design stage and will be finalised ahead of gaining planning consent. An embodied carbon reduction statement will be provided as part of the planning submission and will identify what measures have been taken to reduce embodied carbon.	