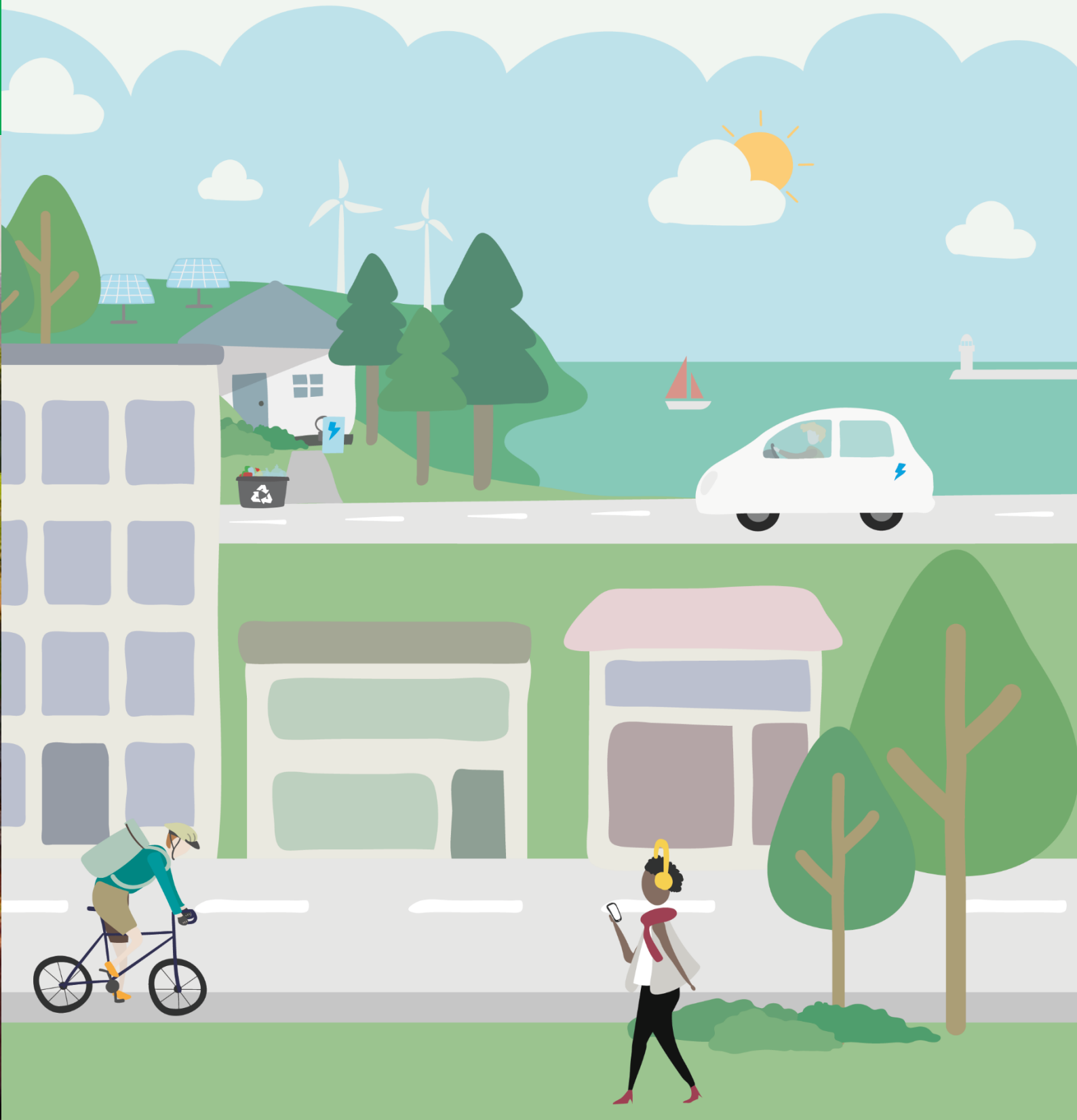
Torbay Climate Emergency Action Plan

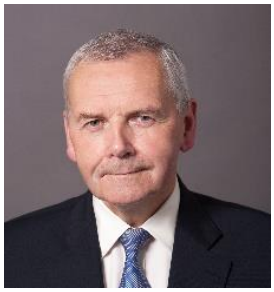
Consultation Draft

2023 - 2025



Contents

Foreword



We are in a climate emergency and need to globally reduce carbon emissions rapidly to maximise the chance of keeping the rise in global temperatures below 1.5°C and avoiding catastrophic climate change. Such a temperature rise may not sound like a big issue, or an issue that will greatly affect us here in Torbay, but as our climate changes we can already see noticeable negative impacts across our communities.

As temperatures rise we are likely to see more extreme weather events and more likely to experience other negative impacts like increased heat-related illnesses and increased risks to local biodiversity. We may also experience the impacts of more flooding on our homes, our buildings, and our local infrastructure with consequent disruption to tourism and business.

To help tackle these challenges, the Torbay Climate Partnership has developed, with contributions from a range of partners, a two-year plan to start to reduce Torbay's carbon emissions and work towards Torbay becoming carbon neutral by 2030.

Making this plan a reality will mean energising everyone across Torbay to play their part. For example it will mean working together to make homes warmer, healthy and zero emission; helping businesses to save energy, water and waste; regenerating our towns with more safe walking and cycling opportunities, reducing waste and installing more public electric charging points. It will also mean that we better prepare for changes in our climate and that we protect and enhance our coasts and countryside so that they can help us store carbon.

It can sometimes feel like an overwhelming challenge to make a difference on this global issue. But we can. Every action matters and we can all start somewhere. We must all start now.

Dennis Flynn
Chair of the Torbay Climate Partnership

The Torbay Climate is a group of partners striving to accelerate action to tackle the climate emergency in Torbay and includes:

The full list is available here.

Executive Summary

Torbay declared a climate emergency in 2019. This means a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it. To tackle the climate emergency locally the Torbay Climate Partnership have developed this Torbay Climate Emergency Action Plan. It is a two-year plan to help the whole of Torbay work towards becoming carbon neutral[1] by 2030.

Torbay needs to take rapid action and play its part. We are already seeing the negative impacts of a changing climate.

Some actions needed will have to be delivered centrally by Government, however, many actions can be influenced and delivered locally.

This plan focuses on what we can do in Torbay to play our part in tackling the climate emergency over the next two years.

To gain an understanding of what Torbay's residents and businesses want to do to help tackle the climate emergency, the Torbay Climate Partnership held a series of climate conversations and surveyed businesses to co-develop actions for this action plan. This action plan also includes a range of immediate priorities that the University of Exeter's Net Zero Torbay Report recommended Torbay take.

Here is a summary of the Torbay Climate Emergency Action Plan:

The vision

> **To work together towards creating a thriving resilient carbon neutral Torbay by 2030**

Objectives

The objectives for this plan are:

1. High take-up of energy-efficiency measures, renewable energy and low-carbon heating technologies in all homes and business premises
2. Carbon neutral new buildings
3. Reduce the need to travel and shift to sustainable transport options
4. Use technology to reduce emissions from vehicles
5. Avoid waste
6. Maximise carbon storage in the environment
7. Transition our power sector to renewables
8. Support businesses to transition to carbon neutral
9. Build a climate resilient Torbay
10. Communicate action to tackle climate change locally

[1] This means taking as much carbon dioxide gases out of the atmosphere as we put in. We will reduce Torbay's carbon emissions to as near to zero as possible locally. Where residual emissions exist, these will be balanced by removals from the atmosphere

This Action Plan focusses on working towards reducing carbon emissions from the:

1. Built Environment
2. Power
3. Transport
4. Waste minimisation and food
5. Nature based solutions
6. Clean growth and sustainable businesses
7. A range of cross-cutting themes, including communication

Actions

Over 100 actions form this Action Plan. All have local partners that will help explore and deliver the actions. The full list is detailed in Appendix 1 - List of actions in the Torbay Climate Emergency Action Plan (separate document).

Appendix 1. A summary is outlined below:

- Roll out energy saving clinics, community talks, recruit, and train 10 'Community Energy Champions' and over 200 home visits
- Develop projects to help more homes to save energy through installing energy efficiency and low carbon measures
- Strengthen planning requirements to make new developments net zero operational carbon with EV charging points
- Develop support for small businesses to help them save money, through saving carbon, energy waste and water
- Invest in sustainable travel options including more cycling, wheeling, and walking routes
- Roll out public electric charging points in Torbay
- Explore more local community-based waste minimisation projects and local growing projects
- Help store carbon by protecting our local sea grasses
- Develop a green tourism award
- Deliver more local campaigns to encourage sustainable lifestyles

These actions will also help to create a nice place to live and work now and in the future, one where Torbay is thriving.

Measuring success

This plan aims to set Torbay on an accelerated path towards carbon neutral by 2030. It is a two-year plan. Subsequent plans will be developed all the way up to 2030.

The Torbay Climate Partnership will monitor this action plan.

To make sure progress is being made between now and 2030 a basket of data sets and interim targets are being developed by the University of Exeter. An addendum to this action plan will be issued in January 2023 outlining these proposed targets.

Background

Our planet's climate is changing, and warming is accelerating. Globally, 2010-2019 was the warmest decade since records began in 1850, and each decade since 1980 has been warmer than the preceding one[2]. 2020 and 2016 tie as the warmest years on record, which were 1.1°C above pre-industrial levels[3].

The Intergovernmental Panel on Climate Change has concluded it is unequivocal that emissions of greenhouse gases (GHG) by humans have warmed the atmosphere[4]. The greenhouse effect occurs when GHGs in the atmosphere, such as carbon dioxide and methane, form a layer around the planet which traps some of the sun's heat. This process makes the Earth warmer and over the last 12,000 years has allowed humanity to thrive.

However, the burning of fossil fuels, deforestation and intensive agriculture have been changing the balance of the greenhouse effect by unnaturally increasing the levels of GHGs in the atmosphere. The increased levels of GHGs mean more heat is being trapped, causing our planet to warm at an unprecedented rate[5]. Carbon dioxide released from burning fossil fuels is the main source of man-made GHGs.

This warming is causing more extreme storms, droughts, heat waves, melting ice, ocean acidification and rising sea levels. The impacts of these changes are widespread. See figure 1 below.

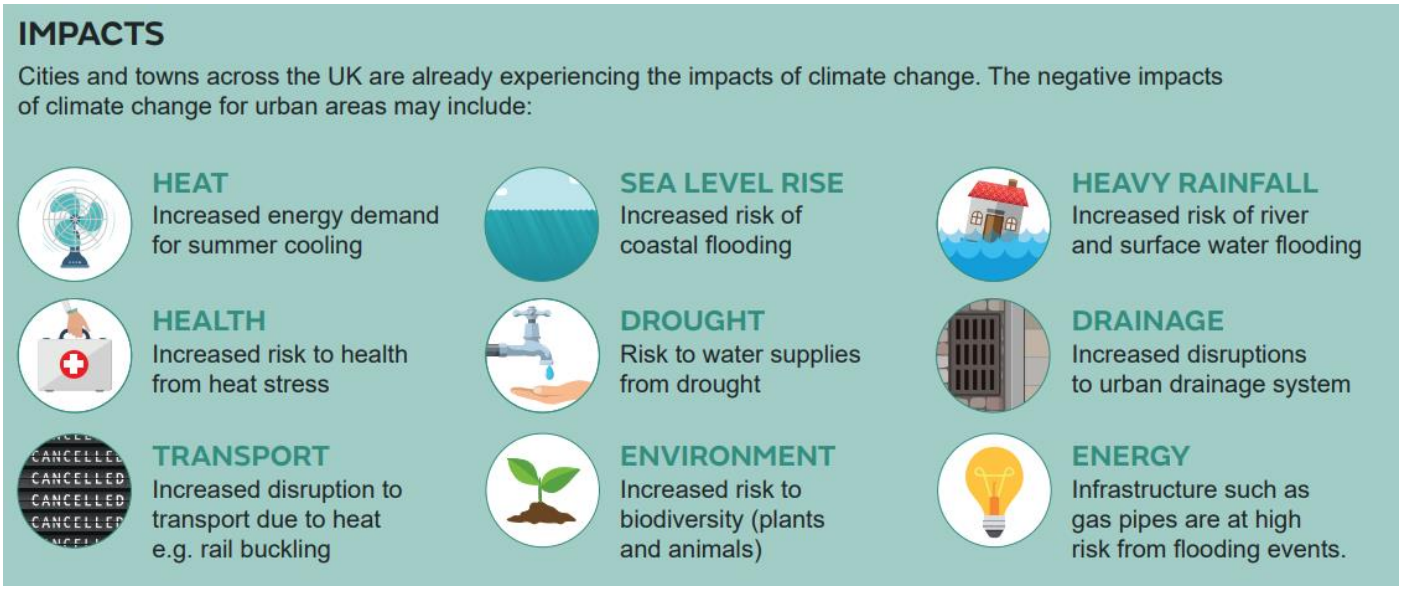


Figure 1. Impacts of climate change. (Source: MET Office City Pack – Torbay 2022)

[2] World Meteorological Organisation (2020) *WMO Statement on the State of the Global Climate in 2019,* WMO, Geneva, Switzerland. Available at: **https://library.wmo.int/doc_num.php?explnum_id=10211**

[3] NASA (2021) *2020 Tied for Warmest Year on Record.*

[4] IPCC (2021) Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [Masson-Delmotte, V. *et al.* (eds)] Available at: **https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf**

[5] IPCC (2014) *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland, 151 pp. Available at: **https://www.ipcc.ch/report/ar5/syr/**

Climate change in the UK and Torbay

The UK's warmest ten years ever recorded have all been since 2002[6]. The hottest ever recorded temperature of 40.3°C occurred in July 2022, smashing the previous record of 38.7°C observed in 2019[7] which also saw:

- the warmest winter temperature
- the warmest December temperature
- the warmest February temperature
- the highest minimum February temperature.

Relative sea level in southwest England has risen by 25cm since 1916[8].

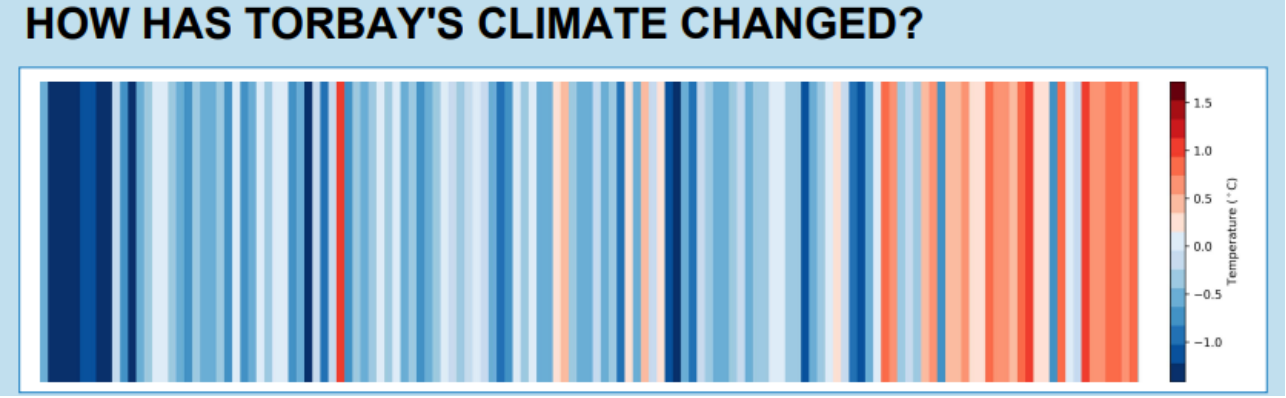


Figure 2. How Torbay's climate has warmed. (Source: MET Office City Pack – Torbay 2022)

Torbay is warming too. The stripes above in Figure 2 show how temperatures in Torbay have increased, with many of the hottest years occurring in the last few decades.

Impacts on Torbay

Case Study: Storm Emma

As our climate warms the sea level rises. This is mainly because of the melting of snow, glaciers, and ice caps.

Sea level rise is likely to have severe impacts on Torbay. This was exemplified in 2018, when Torbay was hit by Storm Emma between late February and early March. During this storm event a combination of extremely high spring tides, which overtopped sea defences around the bay, and strong easterly winds caused extensive flooding and damage to coastal defences.

18 residential properties were reported to suffer from internal flooding during the storm and 4 properties reported external flooding. Storm damage and flooding was also reported to businesses, buildings, beach huts, highways, parks, amenities, tourism infrastructure, Paignton Pier, and Harbour Infrastructure. It is estimated that the storm caused over 3 million pounds worth

[6] Kendon, M. *et al.* (2019) State of the UK Climate 2018.International Journal of Climatology, 39 (S1), pp.1-55. Available at: **https://doi.org/10.1002/joc.6213**
[7] Met Office (2022) *A milestone in UK climate history*
[8] UK Climate Impacts Programme (2018) *UKCP2018.* UKCIP. Available at: **http://ukclimateprojections.metoffice.gov.uk/**

of damage. As Torbay relies on tourism for its economy, coastal flooding of this nature has a significant economic impact on the area.

Climate Projections

If we continue emitting GHG emissions as if it's "business as usual", by the end of the 21st century the estimated change of Devon's average summer temperature is projected to increase by 5.6°C and average winter temperature by 3.4°C in comparison to the 1961-1990 average. Compared to the same period, average winter precipitation is projected to increase by 28 percent whereas average summer precipitation is forecast to decrease by 44 percent.

Sea level is predicted to rise by over 1 metre in Torbay over the next 100 years, this will increase the frequency and impact of sea defence overtopping, resulting in more infrastructure and properties being affected by flooding. Currently during storms like Storm Emma, up to 90 residential properties and just over 120 commercial properties are at risk of flooding. The Torbay Coastal Defences report estimates that, with another 50 years of climate change, the total number of properties at risk of flooding would be 352 unless coastal defences are improved.

Figure 3 shows the predicted impact of flooding over the next 50 years for Paignton and Preston.

On top of that, more intense rainfall will increase the risk of localised flooding and erosion.

As the climate continues to change, the scale and frequency of impacts will increase and, although these changes may not affect everyone directly, the knock-on effects from them will be substantially larger and are likely to disrupt our current quality of life.

Figure 3. predicted impact of flooding over the next 50 years for Paignton and Preston Source: Torbay Council and University of Exeter 2021)

The climate adaptation section of this action plan includes a range of actions to reduce climate risks.

International, national and regional action

The science is clear: we are in a climate emergency and need to reduce carbon emissions rapidly. In December 2015, as part of the landmark Paris Agreement, almost 200 countries agreed to cut greenhouse gas emissions and to attempt to limit the rise in global temperatures to less than 2 degrees centigrade (°C) above pre-industrial levels by 2100, and to pursue efforts to limit the

temperature increase to 1.5°C. Recent annual United Nations climate change conferences (COP 26 and COP 27) are striving to keep the goal of global temperatures from rising more than 1.5 degrees alive.

In June 2019, the UK Government committed to cut the UK's greenhouse gas emissions and become net zero greenhouse gas emissions by 2050. This is a legally bidding target that will require emissions from homes, transport, farming, and industry to be cut completely and where this cannot be achieved, offset by planting trees or sucking emissions out of the atmosphere. In December 2020, the Government furthered its ambitions and pledged to reduce UK greenhouse gas emissions by 68 percent by 2030, excluding international aviation and shipping. A range of strategies have been developed to outline how to achieve this including the Net Zero Strategy, Road to net Zero Strategy and Heat and Buildings Strategy. UK emissions are now almost half (47 percent) their 1990 levels. Emissions rose 4% in 2021 as the economy began to recover from COVID-19 but were still 10 percent below 2019 levels[9]. Further progress must be led by Government policies. The Government's own climate advisors, The Climate Change Committee, in their 2022 report, state that the Government's current programmes will not deliver net zero by 2050[10]. However, according to the CCC, net zero by 2050 can be achieved.

To avoid the catastrophic impacts of climate change, globally, Governments are now trying to limit global temperatures warming to 1.5 degree Celsius above pre-industrial times by the end of the century. Delaying action and not dramatically decreasing carbon dioxide emissions and other greenhouse gases will lead to global temperatures exceeding this target, which will have more catastrophic consequences.

Devon Carbon Plan

Torbay Council has been working with the Devon Climate Emergency Response Group to oversee the development of a Devon Carbon Plan.

The Plan is the roadmap for how Devon will reach net-zero emissions [11]by 2050 (at the latest) with an interim target of 50 percent reduction by 2030. The Plan consists of 8 objectives covering a range of themes including transport, built environment, food, land and sea, energy supply, economy, and resource. A series of actions per sector are identified to be delivered by a range of partners, residents, and businesses. The Devon Carbon Plan (and a number of quick reads) can be accessed from the Devon Climate Emergency website here.

As part of the development of this draft action plan, the Devon Carbon Plan actions have been assessed and included where they are also a local priority.

[9] Current programmes will not deliver Net Zero - Climate Change Committee (theccc.org.uk)

[10] Current programmes will not deliver Net Zero - Climate Change Committee (theccc.org.uk)

[11] Net Zero target requires deep reductions in emissions, with any remaining sources being removed from the atmosphere with greenhouse gas removals.

Introduction

Local context

Torbay is on a journey to reduce emissions and become carbon neural by 2030. This is our journey so far.

Figure 5 Torbay's climate emergency journey so far

In 2019 Torbay Council declared a climate emergency[12] and committed Torbay to work towards becoming carbon neutral by 2030. Following this, Torbay Council adopted tackling climate change as one of its four key visions as outlined in the Community and Corporate Plan (2019-2023).

The Net Zero Torbay report by the University of Exeter was commissioned in 2020 to help inform how Torbay should prioritise actions to work towards becoming carbon neutral (see below for more details).

In 2021 an Initial Carbon Neutral Torbay Action Plan was developed. This was developed by Torbay Council and partners to accelerate climate action in 2021 and 2022. It focusses on 10 key actions including delivering two solar farms, installing new walking and cycling infrastructure, providing hundreds of homes with advice and support to make homes energy efficient, decarbonising Torbay Leisure Centre, planting 300 trees and retrofitting homes with new low carbon heating. These are just some of the actions already happening across Torbay. This new action plan will replace this documents once finalised.

Case Study: Torbay Leisure Centre Decarbonisation Project

Torbay Council and Parkwood Leisure received Public Sector Decarbonisation grant funding of £1.8million to decarbonise Torbay Leisure Centre (TLC). The scheme included replacing old gas boilers and installing new air source heat pumps, solar panels and low energy lighting. As a result the site no longer uses gas to heat the pool and other areas. The project was completed in spring 2022 and it is estimated that the scheme will result in a £9,000 reduction in annual energy costs

[12] The climate emergency reflects the need for urgent action to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.

and save just under 320 tonnes of carbon emissions annually (the equivalent carbon savings to taking 167 cars off the road per year).

However, tackling climate change is not a challenge the Council can face alone. If we don't take action, climate change will eventually impact everyone in Torbay. Everyone in Torbay needs to help by taking actions appropriate to them. That is why reducing carbon emissions is also part of Torbay's local plan, economic growth strategy, destination management plan, local transport plan and housing strategy.

In 2021 a new Torbay Climate Partnership was formed to accelerate climate action locally. Partners include the Wild Planet Trust, Torbay Climate Action, Torbay Community Development Trust, Torbay and South Devon NHS Trust, Local Spark, Groundwork South, Torbay Council, Torbay Development Agency, SWISCo, English Riviera UNESCO Global Geopark, Brixham Town Council, Brixham Chamber of Commerce, South Devon College, and many others. A full list is available here. This Partnership aims to:

> **To bring together key communities, organisations, and businesses from across Torbay to support guide and bring about action to tackle the climate emergency, build climate resilience and ensure Torbay thrives now and in the future**

The Partnership has committed to developing and delivering this action plan. Partners are also taking action in their organisations. For example, Torbay Council is working towards becoming a carbon neutral council by 2030 and South Devon College has a target to achieve a net zero [13]carbon footprint from the College Estate in 2030 and embed the Sustainable Development Goals at all levels across the organisation.

Case Study: Carbon Neutral Council

In 2022 Torbay Council created a Carbon Neutral Council Action Plan to work towards becoming carbon neutral by 2030.

Some of the key actions include:

1. A new policy and set of zero carbon principles for all staff to follow (for more information about the Environment and Carbon Neutral Policy see: Environment and Carbon Neutral Policy - Torbay Council)
2. Reviewing the Council's vehicle fleet and transitioning it over time to zero emissions vehicles
3. An electric car hire scheme for longer business journeys
4. Continuing to consult and co-design with its communities a flood defence/alleviation solution for Paignton and Preston Sea fronts
5. £1m to fund projects to decarbonise the Council's estate and vehicle fleet

[13] Net zero means that total emissions would be equal to or less than the emissions removed from the environment. This can be achieved by a combination of emission reduction and emission removal.

6. Changing the way the Council makes decisions to make sure it considers the impacts on the climate

For more information about the Carbon Neutral Council Action Plan see: Carbon Neutral Council Action Plan 2022 to 2024 - Torbay Council

Co-developing the Torbay Climate Emergency Action Plan

The following outlines how this Plan was developed.

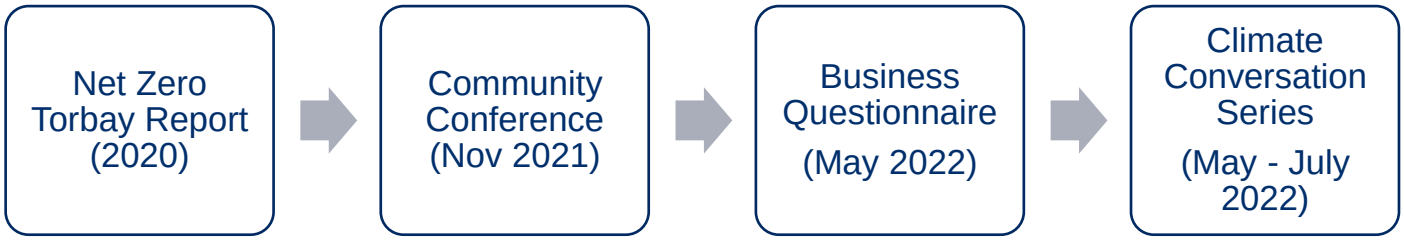


Figure 6 Developing the Torbay Climate Emergency Action Plan

This action plan takes a scientific approach to working towards carbon neutrality. The Net Zero Torbay report was commissioned in 2020 to help Torbay identify how the national target of 2050, and the local 2030 target, could be theoretically achieved and to identify priority actions that needed to be delivered immediately. Many of the priority actions feature in this Plan.

Climate Conversations

To gain an understanding of what Torbay's residents and businesses want to do to tackle climate change, the Partnership, heavily supported by Torbay Council, held a series of climate conversations and surveyed businesses.

The first Climate Conference was held in November 2021 as part of Torbay's annual community conference. In May 2022 a series of half day sessions explored, in detail, key themes identified at the Climate Conference. The themes were decarbonising homes, transport and mobility, nature-based solutions and waste minimisation and local food. In addition, over 60 businesses were surveyed, and local business meetings attended. A separate event for young people was held in partnership with Sound Communities and Torbay Youth Trust. The young people created a series of podcasts on what they want tackled locally. For all the conversations, presentations and recommendations please see the climate conversation webpage at Climate conversations - Torbay Council (www.torbay.gov.uk/council/climate-change).

The recommendations from these sessions were summarised and prioritised in a larger community event in July 2022 and form a proposed set of recommendations for the Partnership to explore in this plan. These include:

- Better data on waste
- Community Repair Café
- Set up Community Action Group Torbay
- Networking and working together
- Rail and public transport improvements

- Decarbonising homes – growing new jobs and rolling out measures
- Net zero planning standards
- Green award for Torbay businesses
- Marine protection and climate friendly tourism
- Better council website on climate issues

The priority actions from the Net Zero Torbay report and the recommendations from the climate conversations have been explored with local partners. Where recommended actions can be delivered, or explored further, they appear in this plan. Those not deliverable in this plan will be reviewed as part of the refresh of this action plan in 2025.

During the climate conversations wider environmental issues such as littering were also raised. Reducing litter will not significantly reduce carbon emissions so this and similar environmental actions are not included in this plan. Information on action to reduce littering can be found on Torbay Council and Torbay Harbour Authority websites (Tor Bay Harbour - Community beach cleans (tor-bay-harbour.co.uk)and Guide to litter picking - Torbay Council.

Torbay's emissions and achieving carbon neutral by 2030

In 2020 Torbay's estimated total greenhouse gas emissions were 437,000 tonnes of carbon dioxide equivalent (t CO_2e). These emissions are produced within the geographic boundary of Torbay (known as production-based emissions).

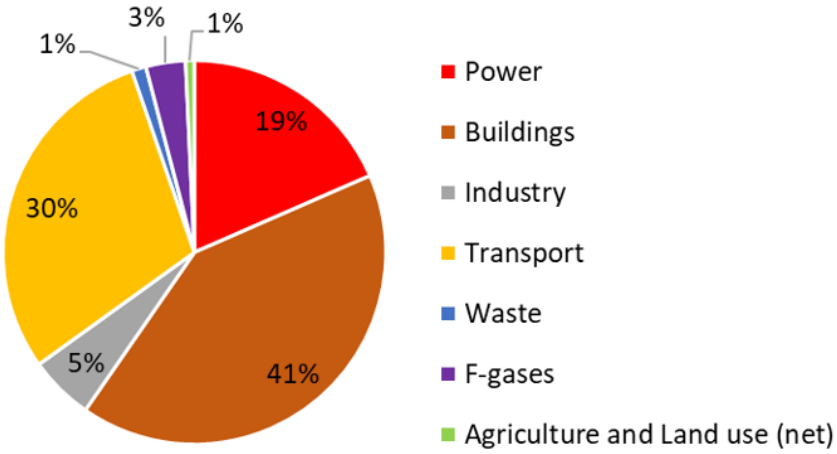


Figure 7. Estimated total greenhouse gas emissions for Torbay 2020

(Source University of Exeter Torbay's 2020 greenhouse gas inventory and sector emissions report 2022)

Buildings (homes, commercial and public sector), transport and power (resulting from electricity consumption) are the largest sources of emissions in Torbay, with buildings contributing over 40 percent.

Emissions have generally been on a downward trajectory since 2008 declining by over 40 percent by 2020. This is mainly due to nationally significant large scale renewable energy projects coming online across UK and feeding into our national electricity grid. However, a lack of progress in reducing emissions in the buildings, industry and transport sectors locally is particularly concerning. Growth of the urban area is likely responsible for a stagnation of emissions reductions in these three sectors. Torbay needs to make significant progress in these three key sectors to deliver carbon neutrality.

Any goods that are imported into Torbay will result in emissions in manufacture that occur elsewhere (known as consumption-based emissions). In its 2018 Progress Report to Parliament, the Committee on Climate Change estimate that UK average GHG emissions are 8 t CO_2e/person if measured on a *production* basis or 13 t CO_2e/person if measured on a *consumption* basis.

This action plan realises the need to take into account both production and consumption emissions. There is no regular and easy way to calculate an area's consumption emissions. However, given they are likely to be significant, this action plan includes actions to reduce consumption emissions. Torbay Climate Partnership has limited influence and control over consumption emissions but encouraging and promoting behaviours that support less consumption and more local goods and services is included in this plan. However, Torbay's Carbon Neutral by 2030 target will be assessed against production emissions.

Achieving Carbon Neutral 2050

The Centre for Energy and the Environment at the University of Exeter was commissioned by Torbay Council to create the Net Zero[14] Torbay report. It provided quantified projections of carbon emissions (production emissions only) for Torbay following a "business as usual" path, and with the national policies (either in place, or required) to achieve Net Zero by 2050. The Projections utilised two reports produced by the Committee on Climate Change (CCC) in 2018: *Progress Report to Parliament* and *Net Zero: The UK's contribution to stopping global warming.* The full report can be found here. These projections were based on meeting Net Zero by 2050 (the national timeline). To assess the impact of targeting an earlier date for Net Zero further work was undertaken to assess how Torbay may be able to meet the target by 2030.

The projections show that in the absence of any carbon reduction policy, GHG emissions in Torbay would rise by 25 percent in 2050. Should all governmental planned low, medium, and high-risk policies, further and speculative options and the actions not yet fully developed into policy (2018 policy gaps) be implemented, locally, by 2050, the projections suggest a 90 percent reduction in emissions could be possible. The inclusion of GHG removal (for example tree planting and carbon capture and storage technologies) would be required to achieve carbon neutrality and remove the remaining residual emissions. Figure 8 summarises this.

Inaction within Torbay is therefore not an option if we are to meet our target. Key priority actions identified for Torbay in the Net Zero Torbay Report were:

1. Retrofitting homes and buildings to make them energy efficient with zero emission heating and power
2. Using our cars less, increasing walking and cycling and public transport
3. Transitioning to zero emission vehicles
4. Generating more renewable energy locally
5. Reducing waste, especially food waste and recycling

[14] Net Zero target requires deep reductions in emissions, with any remaining sources being removed from the atmosphere with greenhouse gas removals.

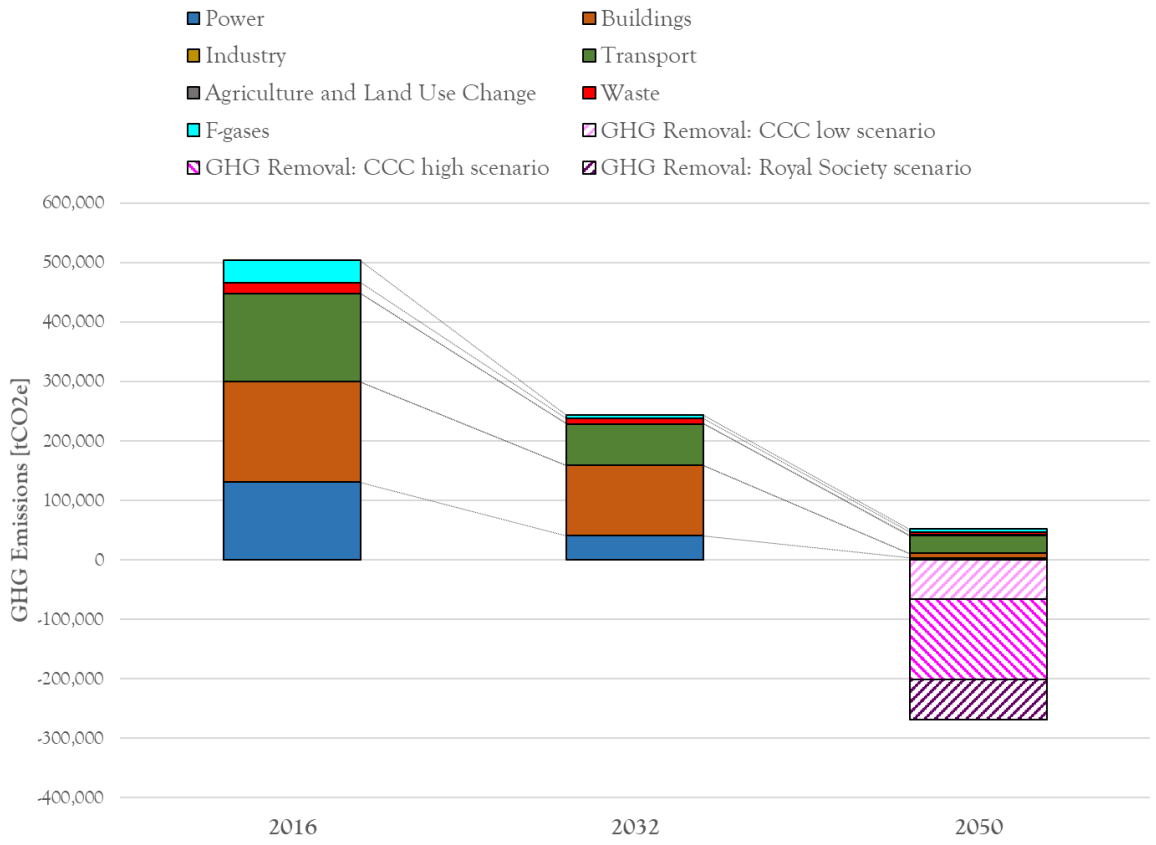


Figure 8 Achieving Net Zero Torbay 2050 (Source: Net Zero report 2020)

Achieving this by 2050 in Torbay will be challenging and require the full implementation of all government planned policy (including policies not developed in 2018) being implemented locally.

Achieving Carbon Neutral 2030

Achieving carbon neutral by 2050 in Torbay will be challenging. Achieving the same amount of carbon reduction by 2030 will require compressing the same measures identified in the Net Zero Torbay report into a timeframe that is about one-third as long as the national timescale. For measures where the technology is sufficiently mature (e.g. insulating all lofts and cavity walls) this might be possible, though it would require supporting funding mechanisms, and there would also need to be local capacity for delivery. In addition, existing barriers that have already prevented such action from occurring would need to be overcome. For other actions, faster deployment may be possible, but this would come at a higher cost. In other cases, the technology may not be sufficiently developed to implement e.g. some of the proposed GHG removal technologies.

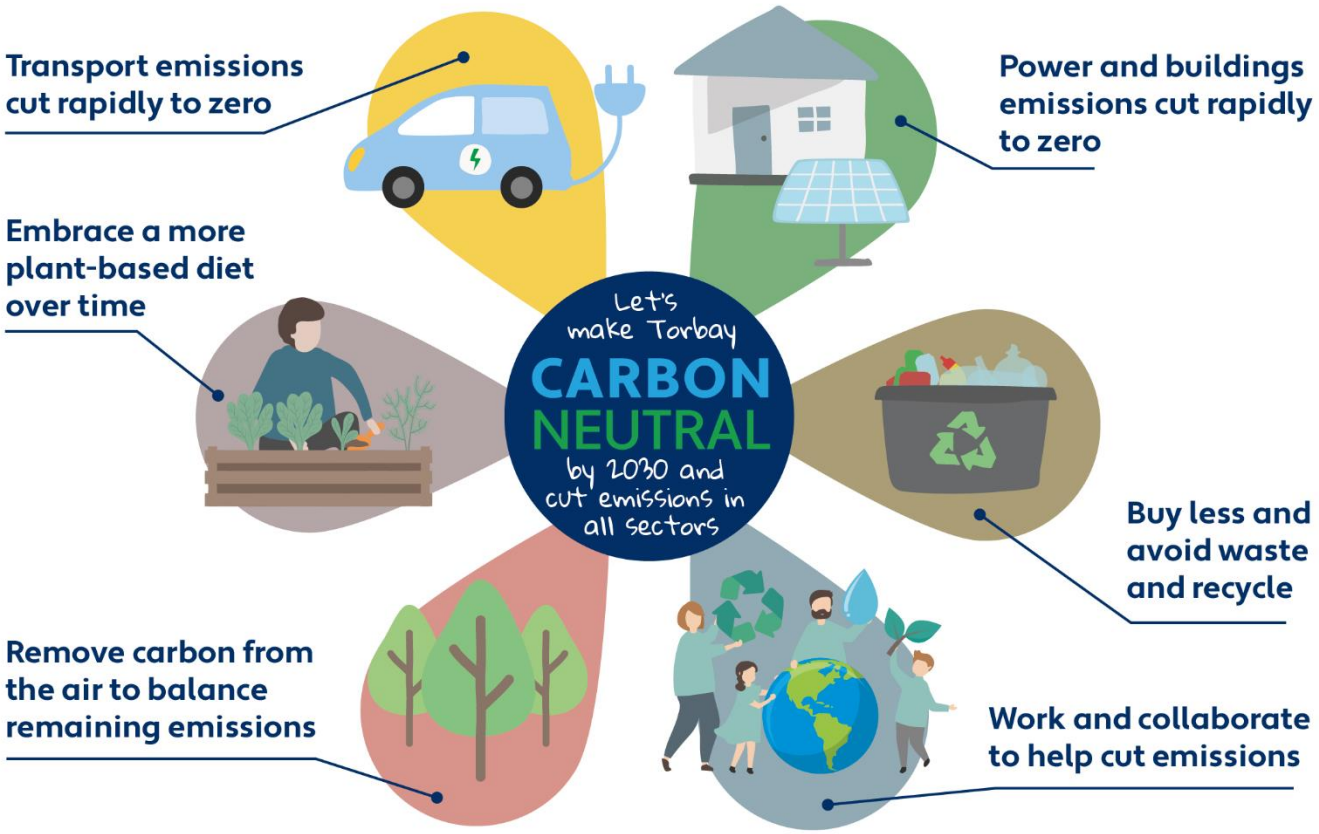
These issues are significant when considered at a national level but are exacerbated as Torbay is pursuing an accelerated timeline independently of the planned rate of change nationally. This would mean that many of these measures would need to be deployed without the support of national policy (e.g. regulation or financial rewards) and in many cases would rely on utilising technology that may not be sufficiently developed (or that is very expensive) to achieve the requisite amount of GHG emission reduction.

The Net Zero Torbay report shows that significant action is needed across every sector to achieve the deep emission reduction that would be required by 2030. Should it not be possible to achieve carbon reduction in a particular sector then this would require additional reduction to be achieved in other sectors. It is also very likely that some actions can only be delivered locally in line with governmental timescales and national policy/programmes. Whilst there are significant challenges

in meeting this level of reduction, particularly within an accelerated timescale, there are also local opportunities to help Torbay thrive (as outlined below).

The Torbay Climate Partnership recognise these challenges, and opportunities, and its members aim to work together to accelerate actions within their local control to try and meet the 2030 target for carbon neutrality. The Partnership will focus on delivering priority actions as outlined in the Net Zero Report as well as actions that reflect how Torbay residents and businesses want Torbay to tackle climate change locally.

How Torbay can end its contribution to climate change:



The Local Benefits

The local benefits

In light of the above, and the clear need for urgent action globally, Torbay needs to take rapid action now and play its part. Some action will have to be delivered by central Government, or businesses, however, many actions can be influenced and delivered locally. This plan focuses on what we can do in Torbay to play our part in tackling the climate emergency.

Addressing the climate emergency is an opportunity to create a fairer, healthier, more resilient and thriving society. It is about creating nice places to live and work now and in the future.

Encouraging everyone to be more active by walking and cycling; improving air quality through the electrification of vehicles; insulating our homes to make them warmer; and eating more balanced diets will all improve public health and reduce pressures on the NHS.

There is considerable potential for the transition to clean technologies to create new jobs and skills, improve energy security and increase economic prosperity. Retrofitting energy efficiency measures into housing will reduce fuel poverty and illnesses associated with cold homes and create local jobs.

Enhancing the ability of habitats to store carbon offers opportunities to reverse the decline of biodiversity and restore the benefits healthy ecosystems provide. These include reduced flood risk, improved water and air quality, nutritious food, timber and fuel, and accessible greenspace.

UN Sustainable Development Goals

The United Nations Sustainable Development Goals[15] (SDGs) have been designed to be a "blueprint to achieve a better and more sustainable future for all. These were adopted by the United Nations and the UK Government as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity. There are 17 goals.

Addressing the climate emergency locally is an opportunity to create a fairer, healthier, more resilient and thriving Torbay. It is about creating nice places to live and work now and in the future. A lot of the actions within this plan will also help meet the 17 SDGs goals. This action plan will help to meet the following SDGs: 3 (Good health and wellbeing), 7 (Affordable Clean Energy), 8 (Decent work and economic growth), 11 (Sustainable cities and communities), 12 (Responsible Consumption and Production), 13 (Climate Action), 14 and 15 (Life below water and Life on Land).

The following sections outline the Action Plan to tackle the climate emergency in Torbay.

Torbay Climate Emergency Action Plan 2023 - 2025

This Action Plan describes how Torbay will work towards becoming carbon neutral by 2030.

This means taking as much carbon dioxide gases out of the atmosphere as we put in. However, we will stive to reduce Torbay's carbon emissions to as near to zero as possible locally[16]. Where residual emissions exist, these will be balanced by removals from the atmosphere.

Whilst the Torbay Climate Partnership will need to lead many of the actions, this is an action plan for everybody in Torbay – businesses and residents alike. Delivery will require all of Torbay to do their bit – every organisation and community have their own sphere of influence, capacity, know-how and opportunities to contribute to achieving the Action Plan's goals – and that's why the partners have been keen to involve local people when creating it. This plan has been co-produced using expert knowledge with the local experience of Torbay's communities and businesses.

The Vision

[15] For more information visit THE 17 GOALS | Sustainable Development (un.org)
[16] Please note there are some actions that can only be delivered through government intervention and support, some of which is not planned before 2030.

To work together towards creating a thriving, resilient carbon neutral Torbay by 2030

From our existing growing spaces to our programmes to retrofit homes, cycling and walking routes and new solar farm(s), Torbay is working to tackle the climate emergency. However, by 2030 we need to have done much, much more.

In 2022 Torbay took part in The Net Zero Visions initiative. This was about communities across Devon deciding how they want to become low carbon and visualising these ideas in a range of art works (e.g. animation, illustration, murals). The aim of the project was to support and start conversations, raise awareness and inspire practical local climate action. Torbay's vision was co-developed with Torbay Climate Action. Figure 9 is the Torbay Vision created.

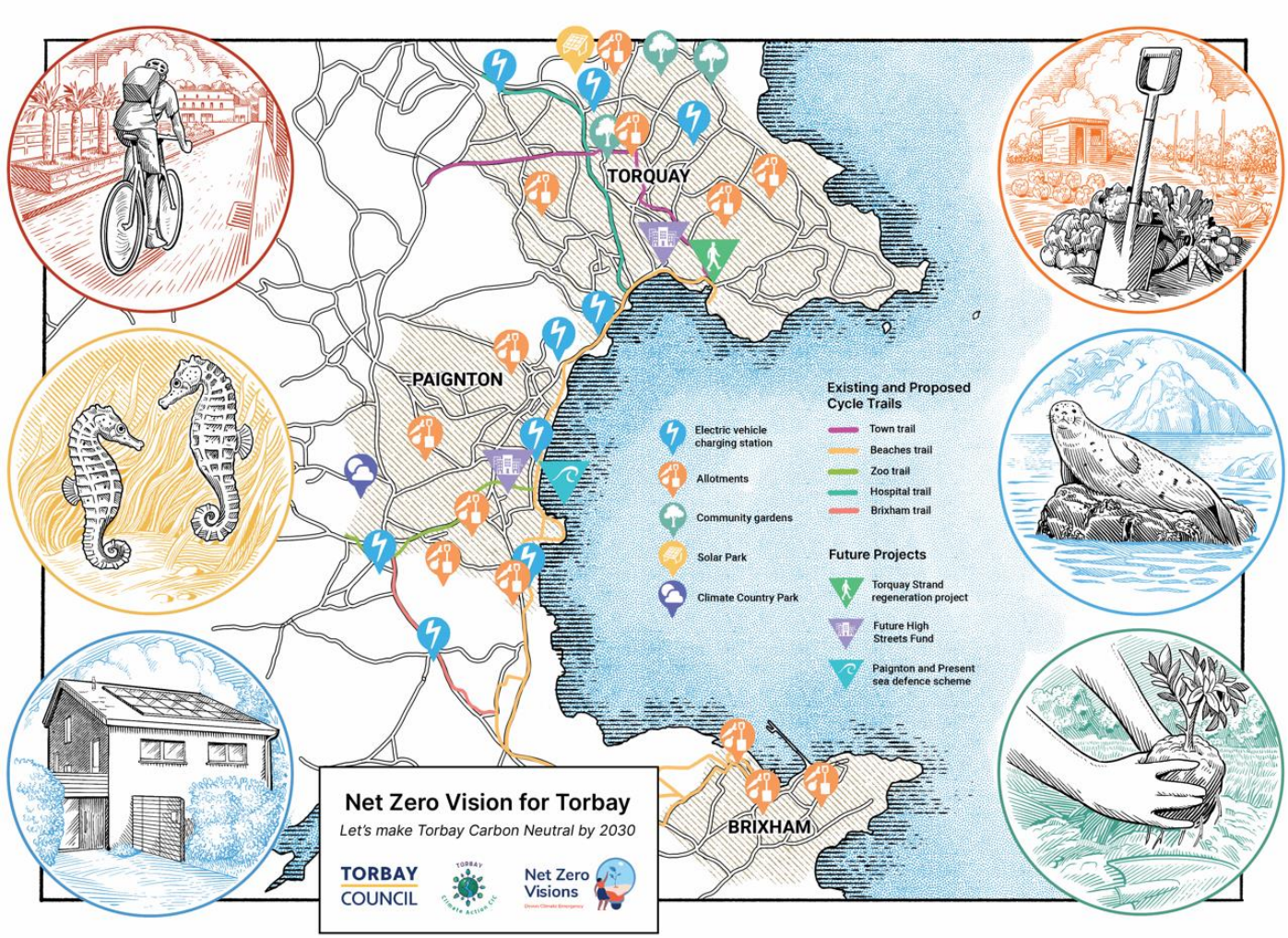


Figure 9. Torbay's Vision. (Illustration by Phillip Harris, September 2022)

Making our vision a reality will mean working together to help Torbay take action and to make our homes warmer, healthy and zero emissions, to regenerate our towns with more walking and cycling opportunities, to install more electric charging points and to continue to protect and enhance our naturally inspiring coasts and countryside. We are also working to ensure we build new flood defences that protect our homes and businesses and there are new jobs supporting this transition. Put simply we want Torbay to be thriving in 2030.

Objectives

The objectives for this plan are:

1. High take-up of energy-efficiency measures, renewable energy and low-carbon heating technologies in all homes and business premises
2. Carbon neutral new buildings
3. Reduce the need to travel and shift to sustainable transport options
4. Use technology to reduce emissions from vehicles
5. Avoid waste
6. Maximise carbon storage in the environment
7. Transition our power sector to renewables
8. Support businesses to transition to carbon neutral
9. Build a climate resilient Torbay
10. Communicate action to tackle climate change locally

To become carbon neutral by 2030 we will need to rapidly, over the next 7 years, reduce carbon emissions by as much as we possibly can.

This action plan focuses on the areas where the Net Zero Torbay report suggested immediate actions, actions that our residents and businesses prioritised and actions that can save carbon emissions and that are within Torbay's directly influence and control.

This two-year action plan focusses on working towards decarbonising the:

1. Built Environment
2. Power
3. Transport
4. Waste minimisation and food
5. Nature based solutions
6. Clean growth and sustainable businesses
7. A range of cross-cutting themes, including communication

Our Priorities

The following sections of this plan outline priority themes and a summary of the actions to be carried out across Torbay by a range of partners, overseen by the Torbay Climate Partnership.

Built Environment

Our homes and buildings make up our built environment. This sector is responsible for 41 percent of Torbay's carbon emissions. The majority of emissions associated with the building sector are due to heating our homes (carbon emissions associated with electricity consumption are covered in the Power sector). Reducing emissions arising from heating relies on both reducing demand through efficiency measures and behaviours and supplying required heat using low-carbon technologies such as heat pumps. Energy efficient homes will also create healthy and affordable homes that have been improved for the future. In 2020 12 percent of homes in Torbay were also in

fuel poverty and three quarters of Torbay's housing stock achieve an energy performance certificate rating of C, whereas for England it's just over half (54 percent). Improving the energy efficiency of homes will help reduce fuel poverty and provide homes that are more resilient to energy price rises.

According to the Net Zero Torbay report, Torbay needs to prioritise the following actions:

- For homes, provide an appropriate insulation measure for every available loft and cavity walled building as well as the majority of solid walled buildings
- For non-domestic buildings, including those used for industrial purposes, identify significant energy reduction opportunities.
- The heat supply to buildings will need to be decarbonised using heat pumps and other low carbon forms of heat
- All new homes and buildings need to be built without fossil fuel heating and to a "world-leading" energy efficiency standard

For other actions see the Net Zero Torbay report.

The Climate Conversations recommended projects to help more homes to save energy through installing energy efficiency and low carbon measures, including helping homes in fuel poverty and strengthen planning requirements to make new developments net zero carbon with Electric Vehicle (EV) charging points.

When businesses were asked about what would help them to take action, they stated grants, one to one support and for Torbay to have better waste provisions, cycling routes and more EV charging points.

Torbay will also need to grow a local skilled workforce to roll out these actions over time.

Over the next 2 years we will:

Improve homes for the future - existing houses. We need high take-up of energy-efficiency measures, renewable energy, and low-carbon heating technologies in our 63,000 homes.

To support this Partners will

- By September 2023, Exeter Community Energy (ECOE) to roll out 50 energy saving clinics, 10 community talks, recruit, and train 10 'Community Energy Champions', 5 front line services training events and 200 home visits
- Launch the "Retrofit in Devon" across Torbay (a full support service for anyone able to fund improving the energy efficiency of their home/rented properties)
- Exeter Community Energy (ECOE) to support homeowners in Torbay to take up a range of grants to improve the energy efficiency of their homes including the Devon-wide Sustainable Warmth grant
- Torbay Council to develop a new Housing Strategy and Action plan that aims to Improve energy efficiency and reduce fuel poverty
- Torbay Council will continue to support Torbay homeowners taking part in the Energy Company Obligation 4 (ECO), a government energy efficiency scheme
- Torbay Council will support Devon County Council, to launch a Devon-wide Energy Service (to provide simple advice on saving energy and retrofitting homes)

- Torbay Council will explore finance options to retrofit properties that do not qualify for government energy efficiency / low carbon heat grants and to work with Registered Providers of housing to share best practice and opportunities to work together
- Torbay Council will work with local forums to promote take-up of energy-efficiency measures, renewable energy, and low-carbon heating technologies
- Building on the Government funded Minimum Energy Efficiency Standard (MEES)[17] trial in 2022, explore ways to enforce the statutory MEES standards locally to ensure rented properties meet national energy efficiency standards
- Our registered providers of social homes will also continue to improve the energy efficiency of their stocks, including Sanctuary Homes who are piloting Energiesprong in Paignton, a new innovative delivery model for energy efficient, low carbon homes

Case Study: Help to improve homes and save money on fuel bills

Between 2018 and 2021 local organisation Exeter Community Energy (ECOE) have been supporting Torbay residents with energy saving advice through their telephone advice line and via home visits. ECOE have provided advice to 197 households during this period. So far in 2022 they have supported 146 households. The need for support is growing at pace.

Since October 2021 ECOE have been holding drop-in energy advice clinics and outreach events across the Torbay area including 11 drop-in clinics in Torquay, Paignton and Brixham, 3 pop up outreach events in Torquay and, 2 Torbay-wide climate events.

Improve buildings for the future - commercial and industrial premises. We need high take-up of energy efficiency measures, renewable energy, and low-carbon heating technologies in all our businesses.

To support this Partners will:

- Subject to government funding, Torbay Council and Torbay Development Agency (TDA) to develop and roll out a resource efficiency (including energy, water, waste, and transport) business support programme. This is likely to include 40 businesses receiving grants, 96 receiving non-financial support and 96 businesses developing decarbonisation plans
- Organisations within the Torbay Climate Partnership to continue to deliver their own decarbonisations plans across their estate(s) and encourage others to do the same

[17] MEES - **Regulation** introduced to improve the **energy efficiency** of certain private rented property in England and Wales

Case Study: A Green Plan for the Torbay and South Devon NHS Foundation Trust

The Torbay and South Devon NHS Foundation Trust has produced a Green Plan for 2022-2024 which outlines its commitment to environmental sustainability with a primary focus on how it will achieve the national target of a net zero NHS. The key outcomes of the plan include:

1. ensuring it is aligned to the NHS-wide ambition, and that of the Devon Integrated Care System to become the world's first healthcare system to reach net zero carbon emission
2. prioritising interventions which improve the quality of healthcare it delives, while also tackling its greenhouse gas emissions and broader sustainability challenges
3. defining its strategic approach in such a way that it makes the right sustainability decisions first time

The plan will be updated and expanded regularly, as and when there is a better understanding of environmental impacts and how to reduce them. The Green Plan will also be aligned with actions and timescales that *Delivering a Net Zero National Health Service* sets out, including the targets for the next 20+ years.

New buildings need to be net-zero

- Torbay Council will refresh the Local Plan's climate related policies and adopt where possible the highest net zero operational carbon standards for new properties

Other actions

- Partners will need to develop a clean growth skills programme to build a skilled workforce to support the transition to carbon neutral - focussing initially on sustainable construction and domestic housing retrofit. Local supply chains will also be explored
- To support delivery of the Devon Carbon Plan this plan will prioritise supporting the Devon-wide Energy Advice Service and refreshing the Torbay Local Plan's policies to support zero-carbon buildings in operation and set embodied carbon targets.

Power

Emissions resulting from electricity consumption across Torbay's homes and buildings make up 19 percent of Torbay's emissions in 2020 (gas consumption was covered in the built environment section above). Nationally, since 2008, this sector has been very successfully reducing carbon emissions. In Torbay this has resulted in a 71 percent reduction in emissions from this sector. However, these savings from electricity generation have largely been achieved through the decommissioning coal and gas-powered power stations and the rollout of largescale renewable energy generation projects across the UK including offshore wind. Not local projects.

Achieving net zero nationally will involve the electrification of our energy needs for heating and transport. This includes removing existing petrol and diesel cars and vans from the roads and using heat pumps for heating buildings (instead of natural gas or oil). Government also wants to see ambitious, quicker expansion of nuclear, wind, solar, hydrogen, oil, and gas, including

delivering the equivalent to one nuclear reactor a year instead of one a decade. 95 percent of Great Britain's electricity is set to be low carbon by 2030 (Energy Security Strategy, UK Government 2022). In reality this increased need for new electricity capacity will be met in part through nationally significant infrastructure, such as offshore wind farms. Much of the power sector's decarbonisation will happen nationally with limited action required locally. However, we all will need to use less energy to help with this transition and install local renewable electricity generation where possible.

A small amount of local renewable energy generation does occur in Torbay. According to the Net Zero Report this is under two percent of all the energy used in Torbay. It comes mainly from roof mounted solar photovoltaic panels on our homes and buildings.

There is a small amount of potential (10 percent) for large-scale renewable energy generation in Torbay which is summarised in the Net Zero Report.

Case Study: Brokenbury Solar Farm

Torbay Development Agency (TDA), Torbay Council's economic development company, is building Torbay's first solar farm in 2023.

A new 2 megawatt solar farm is being built at Brokenbury, between Paignton and Brixham. It will create clean energy – enough to power around 800 homes. Southwest Water will use the majority of the power for a nearby water treatment plant, with surplus energy supplied to the national grid.

It is estimated that the farm could save around 460 tonnes of carbon emissions per year, and a total of almost 11,000 tonnes of carbon in its 25-year lifecycle.

We need to use less energy, generate what renewable energy we can, through projects like Brokenbury and by installing solar panels on our roofs, and work locally with electricity distribution partners to ensure our local electricity grid is future ready.

According to the Net Zero Torbay, Torbay needs to prioritise the following actions:

- Review of the potential for renewable energy in Torbay and identify potential renewable energy sites and make provision for these in the local plan
- Work with Western Power Distribution (WPD) and others to ensure electricity infrastructure is capable of meeting increased local energy generation and demand for electricity from the heating, industry, and transport sectors
- Look to trial and support smart electricity projects, including those with battery storage aspects

During the Climate Conversations recommendations and priorities to transition Torbay's power sector did not feature extensively. However, given it makes up 19 percent of Torbay's total emissions and the importance of ensuring electricity infrastructure is capable of meeting increased local energy generation (and the current global energy crisis), the following actions will be undertaken.

Over the next two years we will:

Use less energy and continue the transition to renewables

To support this Partners will:

- Promote saving energy in homes and installing renewable energy through campaigns lead by Exeter Community Energy (see the built environment above for more support)
- Torbay Council will work with Western Power Distribution (WPD) and others to ensure electricity infrastructure is capable of meeting increased local energy generation and demand for electricity from the heating, industry, and transport sectors
- Subject to government funding, Torbay Council and TDA to develop and roll out a resource efficiency business support programme (covering energy saving and renewable energy bespoke advice)
- Torbay Council and Devon County Council to explore developing a local area energy plan (LEAPs). LEAPs take a whole energy system approach that sets out to identify the most effective route for the local area to contribute towards meeting its local carbon neutral target. They address electricity, heat, and gas networks, future potential for hydrogen, the built environment (industrial, domestic, and commercial) its fabric and systems, flexibility, energy generation and storage, and providing energy to decarbonised transport e.g. electricity to electric vehicles and charging infrastructure
- Action to reduce electricity demand and promote renewable energy in new homes and buildings is covered in the built environment section. Action to support the transition to electric vehicles is covered in the Transport section below
- To support delivery of the Devon Carbon Plan this plan will prioritise working with Devon on an energy strategy for Devon to deploy renewable energy generation, including community energy

Case Study: Energy Community Energy Solar installations

Exeter Community Energy (ECOE) was established by eight local people in 2014 who were brought together by Transition Exeter‘s energy group. ECOE’s vision is for renewable energy projects to bring about practical change in their community by addressing energy related challenges.

To date ECOE has a range of projects including solar installations.

Wonford Community and Learning Centre

ECOE has installed solar panels that can generate 20.5 kilowatts of power at peak output (20.5kWp) on the roof of Exeter City Council’s Wonford Community and Learning Centre

Transport

This sector is responsible for 30 percent of Torbay's emissions. Through the combustion processes carbon emissions arise from our cars, vans, HGVs, trains, and buses[18]. Reducing these emissions rapidly is vital to meet our 2030 targets. We will all need to reduce our need to travel, shift to active and sustainable modes of transport and use technology to reduce emissions from vehicles. As part of this people need to feel safe and our public transport needs to be an affordable and reliable option.

According to the Net Zero Report (2020), Torbay needs to prioritise the following actions:

- 10 percent of our journeys (by distance) need to shift to sustainable, active travel modes like walking and cycling, car and bike clubs and public transport
- Promote the uptake of electric vehicles in Torbay
- Work with partners to plan and develop charging infrastructure across Torbay
- Work with Stagecoach and other bus providers to consider the business case for replacing the existing bus fleet with zero carbon alternatives

For other actions see the Net Zero Torbay Report.

The results of the Climate Conversations highlighted the importance of more walking and cycling routes, making it safe for people to walk, cycle and wheel, improving rail and bus services and electric bike trials and taking an tailored neighbourhood approach.

Over the next two years we will:

Continue to reduce the need to travel and shift to sustainable transport options

To support this Torbay Council with partners will:

- Develop a road safety campaign to support active travel, this is paramount to progress
- Trial walking and cycling routes between Windy Corner and Brixham
- Develop a Local Transport Plan
- Review subsidised Bus Services to support the community
- Establish a Local Bus Partnership to deliver network improvements
- Develop a One Travel Ticket for Torbay
- Roll out an electric bike and electric car rental club for Torbay
- Explore mobility hubs to reduce car use in town centres and other key sites across Torbay
- Identify potential neighbourhood(s) for a low carbon neighbourhood pilot
- Implement trial car free days on parts of the network, such as sea fronts or town centres
- Torbay on the Move to promote active travel across Torbay
- Continue to deliver Bikeability classes in primary and secondary schools
- Launch healthy Selfie Trial in Torbay
- Deliver Edginswell Station, a new railway station in the Torquay Gateway
- Deliver active travel projects as outlined in the Local Cycling and Walking Infrastructure Plan (LCWIP)

[18] Shipping and aviation are excluded from these emission

- Work with partners to plan and develop charging infrastructure across Torbay
- Carry out a 20-minute neighbourhoods Audit for Torbay Council
- Explore a range of funding opportunities

A range of other actions such as updating cycling maps, reviewing cycle parking, wayfinding signage, ferry services and strengthening planning policy will also be explored.

Case Study: Bikeability in Torbay

Bikeability is the government's national cycle training programme. It helps teach practical cycling skills and how to cycle on today's roads.

To help young people feel safe and confident on the roads of Torbay, Torbay Council have been working with all schools to offer Bikeability training.

The total number of children trained across Levels 1 (off road, gateway to cycling) and 2 (on road training to build confidence) between April 2021 and April 2022 in Torbay was 1396.

2 pilot projects aimed at teaching how to fix bikes has also commenced at Upton St James and Mayfield schools.

And it is not just about young people, Adult and family training has also been carried out.

Use technology to reduce emissions from vehicles

- Working with Devon County Council, Torbay Council to deliver public electric vehicle charging points across Torbay's public car parks, including installing at least 48 early in 2023
- Finalise an electric charging infrastructure strategy for Torbay and scale up delivery of public charging points across Torbay
- Phase out petrol and diesel taxis by 2030
- Transition the Council and SWISCo fleets to zero emission vehicles

Other actions

- Improve capturing of data, monitoring equipment, maintenance, publication, and use of data for all modes across Torbay
- Subject to government funding, Torbay Council and TDA will develop and roll out a resource efficiency (including sustainable travel advice) business support programme.
- Torbay on the Move will promote active travel across Torbay
- To support delivery of the Devon Carbon Plan this plan will assist Devon to deliver many actions within the Plan locally. Priority areas include working with Devon to develop a new local transport plan, electric charging strategies to deploy the right chargers in the right place and to transition Torbay Council and SWISCo's fleets to zero emission vehicles

Waste Minimisation and Food

The way we make things, use them, and then throw them away creates greenhouse gases (GHG). These emissions contribute to climate change. These emissions arise during the manufacturing and transportation to the customer and then through its disposal.

In 2019-2020 some 41,300 tonnes of waste were generated from homes in Torbay. We recycled and composted about 37 percent of our waste. In 2020 only one percent of Torbay's emissions came from waste, however this does not include the emissions that arise from the disposal/recycling of waste. This is because these processes occur outside Torbay.

As outlined in the Net Zero Torbay report, 92 percent of emissions from waste in the UK arise from methane, another greenhouse gas that we need to reduce in order to tackle climate change. The majority of this methane is emitted from the decomposition of biodegradable waste in landfill sites. Torbay Council, who are responsible for collecting household and some commercial waste has stopped landfilling waste. Household waste is now either recycled, composted, or used for energy recovery. However there is still a significant volume of commercial and industrial waste, including biodegradable waste, that is currently sent to landfill. This needs to be reduced.

We can minimise waste creation and the associated emissions by using things for longer, by implementing the waste hierarchy– purchasing less, reusing, and repairing what we already have, and by recycling and recovering materials and energy. This is known as a circular economy.

The emissions associated to the purchasing of goods produced abroad also create emissions overseas. We do not have data on this for Torbay but in Devon it is estimated that this could represent 39 percent of the total emissions Devon is responsible for. So Torbay also needs to address these emissions where we can.

According to the Net Zero Report (2020), waste will become an increasing problem as other sectors in Torbay begin to reduce their emissions. Torbay needs to prioritise the following actions:

- Waste generation, especially food, should be reduced. This will require a strong element of behaviour change which could be supported by local campaigns
- Torbay's recycling rates should be increased in line with the national target of a 60 percent by 2030

For other actions see the Net Zero Torbay Report.

The results of the Climate Conversations recommended many great ideas to reduce waste, reuse and recycle waste, including establishing a local repair café, exploring a range of community projects and establishing a community action group (CAG) or similar to facilitate more local action. Other areas included schools' education programmes and the need for better waste date to see the full scale of emissions that arise from Torbay's waste.

Avoid Waste

Over the next 2 years we will:

Reduce and reuse waste (including reducing emissions from biodegradable waste)

To support this Partners will:

- Led by Torbay Council with a range of existing community groups such as Torbay Climate Action and Torbay Community Development Trust, explore a Torbay Community Action Group (CAG), or similar, for Torbay to accelerate local community action around waste minimisation and wider climate action. Other examples of CAGs in Devon can be seen here
- Coordinated by Torbay Council, but codeveloped with a number of partners, deliver a Torbay food strategy by end of 2023 covering actions that support the minimisation of food waste, maximises food sharing initiative (community larders), local growing and education including cookery classes
- Through the Waste Management Strategy for Torbay, SWISCo to continue to reduce the amount of waste sent for energy recovery and disposal, especially food waste, and continue to offer a garden waste kerbside collection service
- SWISCo to continue to reduce waste by working in partnership with Devon's 'Don't Let Devon Go to Waste' campaign and nationally, as part of the Waste and Resources Action Programme's 'Love Food Hate Waste' Campaign
- SWISCo to promote reusable nappies through local Nappuccino events

Recycle

- SWISCo to increase Torbay's recycling rate to 50% by the end of March 2023 and continue to increase the recycling rate towards the national targets of 60% by 2030
- Deliver the Waste Management Strategy and increase education, engagement, and communication on recycling initiatives, including the Right Stuff, Right Box scheme and greater focus on getting more food waste out of the black bin.
- Continue to offer a range of services including assisted collections and support for the visually impaired, kerbside recycling and garden waste schemes, bulky waste collection service, garden waste collection points and Householders Recycling Centre
- Review a local bottle recycling scheme once the Government provides more details on the proposed Deposit Return Scheme

Other actions

- Subject to funding, Torbay Council and TDA to develop support for small businesses to help them save money, through minimising waste and wider circular economy principles
- Through the Waste Management Strategy for Torbay, SWISCo to continue to develop commercial waste and recycling customer base
- Torbay Harbour Authority with partners to establish support for the fishing industry to reduce waste
- Torbay Council and SWISCo to review the Waste Management Strategy in 2023 and ensure it is in line with national recycling targets and/or local carbon neutral targets (whichever is required sooner)
- Gain better access to waste data
- To support delivery of the Devon Carbon Plan we will also continue to support waste education in schools and deliver targeted communication to empower people and businesses to adopt more sustainable consumption habits, prevent waste and shift to a culture of sharing, reusing, and recycling.

Case study: Groundwork South

Groundwork South Trust are an environmental charity who have been working in Torbay to support the local environment and deliver educational projects in communities and schools

Groundwork South have been working with many schools in Torbay to tackle issues such as how to reach net zero, use limited outdoor space creatively for learning and development, creating youth advocacy programmes and eco clubs and much more.

During Covid they delivered the green influencers project in Shiphay Academy, Roselands Primary School, and Oldway Primary School. Supporting the transition from year 6 to secondary school during lock down and giving the young people a safe way to get outside and reconnect with their environment. This year they have also been working with Paignton Academy who now have their very own eco club looking at food growing.

(Photo courtesy of Groundwork South)

Nature Based Solutions

Nature based solutions such as tree planting, restoring sea grass/other habitats and re-wilding areas of land can help store carbon emissions and play a role in helping an area achieve carbon neutrality. Nature based solutions can also help alleviate flood risk, help cool spaces in the summer and restore nature, improve biodiversity, and deliver a range of health benefits to local communities.

According to the Net Zero Torbay report, emissions from agriculture and land use change are small (-0.1 percent) in Torbay. Therefore it has not been discussed in detail in this plan. The absence of major agriculture in Torbay enables focus on other high emitting sectors.

Achieving net zero emissions in the UK will require some level of GHG removal to mitigate residual emissions in difficult sectors. Meeting carbon neutral by 2030 in Torbay will also require GHG removal. Torbay has very limited opportunities for local GHG removal and is therefore likely

to rely on the regional and national programme of GHG removals to tackle any residual emissions that cannot be reduced. Of which few currently exist.

Nature based solutions such as tree planting and other schemes to increase carbon storage locally will be encouraged to remove GHG's from the atmosphere. But beyond these steps Torbay will need to rely on a proportion of national GHG removal measures to achieve carbon neutrality.

The results of the Climate Conversations recommended priority actions such as local community growing schemes, sea grass projects, the creation of a green business award and making Torbay a more climate friendly tourism destination.

Over the next 2 years we will:

Maximise natural carbon storage locally

To support this Partners will:

- Lead by Torbay Council and co-developed with partners, produce a refreshed Torbay green infrastructure[19] strategy to restore, protect and enhance our naturally inspiring Torbay and support it to play a greater role in helping tackle climate change. This will include blue infrastructure (rivers, streams, bodies of water, sea)
- Torbay Council will install 29 green roofed bus shelters
- SWISCo will continue to deliver effective tree planting schemes as part of the three-year funded i-tree initiative, including planting over 3000 trees
- SWISCo to develop a new Tree Planting Strategy for Torbay
- SWISCo to refresh Torbay's Tree and Woodland Framework Strategy which aims to ensure the safety of Council-owned trees; increase levels of planting as part of a wider strategy to combat climate change; maintain and encourage biodiversity; maintain and improve landscape quality
- SWISCo to develop an open spaces strategy
- To better protect Tor Bay's Sea grass population and increase biodiversity and carbon storage within our marine environment, the Torbay Marine Forum will explore the feasibility of piloting areas of Tor Bay that are protected from motorised marine users
- Wild Planet Trust to run an advocacy campaign on how to protect Tor Bay and protect our local sea grass population
- To protect and help restore Torbay's sea grasses, Torbay Harbour Authority (THA) to increase the amount of sea grass markers out in Tor Bay from 5 to 50.
- A Marine Protection Vision to be developed by the Harbour Committee
- Lead by THA establish support for the fishing industry to reduce waste and work towards net zero
- THA to reduce the emissions from their harbour offices and fleet
- Torbay Coast and Countryside Trust (TCCT) to continue to actively manage over 680ha of land (including organic farmland) to deliver wildlife, environmental and social benefits including habitat recovery and carbon storage where appropriate
- TCCT to explore piloting a local carbon offset scheme on non-productive Trust land.
- Torbay partners to launch a new green business award

[19] Multi-functional green space and other green features

- Groundwork South to launch the Clennon River Warden Scheme and continue to manage the implementation of essential flood defence schemes and restoration of an important ecological habitats at Westerland Valley Country Park, Paignton, including establishing a new wet woodland
- Groundwork South to continue to work with schools in Torbay on growing food and establish forest clubs and explore with partners ways to roll this out across more schools in Torbay
- A range of natural flood management (NFM) projects are covered in the Climate Adaptation section of this Action Plan
- To support delivery of the Devon Carbon Plan we will work with Devon partners to develop a Local Nature Recovery Strategy and create and implement a Nature Recovery Network. This will also include the role of local restoration schemes as natural carbon storage schemes.

Case Study: Eco-moorings installed to protect Torbay's seagrass meadows

In October 2021 Wild Planet Trust, an education, scientific and conservation charity based in Paignton, have installed three new boat moorings designed to protect seagrass meadows. The moorings were installed in Fishcombe Cove, one of the main seagrass meadows in Torbay.

Both boat anchors and traditional mooring systems have a detrimental impact on seagrass. Anchors pull up the seagrass roots and mooring chains move across the seabed with the changing tides and currents scouring the seabed of life, resulting in damage to the habitat. The design of these new mooring systems means damage to seagrass is prevented as the mooring chains are suspended above the seabed, protecting the seagrass.

Data recorded over the last year shows that detrimental anchoring in Fishcombe Cove has dropped a huge amount since the eco-moorings have been available for use by boat owners.

Clean Growth and Sustainable Businesses

Five percent of Torbay's emissions come from industry. Torbay therefore has little energy intensive industries. Torbay's focus will instead need to be on creating clean growth by helping our smaller businesses to save money and reduce emissions by the prudent use of energy, water, and waste. Torbay will focus on sectors such as construction, tourism, and the fishing sectors.

As part of the consultation on Torbay's Economic Growth Strategy, businesses were asked what would help them to take more actions to tackle climate. A range of responses were received including grant support, better cycling network, bespoke advice and training, improved waste services and increased numbers of electric charging points.

Over the next two years we will:
Support businesses to transition to carbon neutral

To support this Partners will:

- Subject to government funding, Torbay Council and TDA will develop and roll out a resource efficiency business support programme. This is likely to include 40 businesses receiving grants, 96 receiving non-financial support and 96 businesses developing decarbonisation plans
- Torbay Council, TDA and English Riviera UNESCO Global Geopark (ERUGGp) partners will develop a Green Tourism Award and to showcase exemplars of good practice and supporting the overall reputation of Torbay as a sustainable tourism destination
- Creating sustainable tourism is one of the priorities of Torbay Destination Management Plan (DMP). Partners will align the DMP with the ambitions this Plan to work towards achieving these aspirations
- Partners will explore the unique opportunity to use the UNESCO Global Geopark designation as a focus for sustainable tourism and maximise engagement with businesses and visitors
- Torbay Council, TDA and partners will explore the options to align with the UNESCO Glasgow Declaration on Climate Change as a commitment to a more sustainable visitor economy
- Torbay Council will develop a sustainable events charter to make sure large council run events work towards meeting Torbay's carbon neutral 2030 target
- As this Plan develops, Torbay Climate Partnership will explore a clean growth skills programme with partners across Torbay to build a skilled workforce to support the transition to carbon neutral
- The English Riviera BID Company by summer 2023 will create a digital toolkit for Tourism sector, including a range of practical advice and support
- The English Riviera BID Company will continue to annually hold Walking Fest, which promotes a range of local walks across Torbay
- The English Riviera BID Company will update its website with climate friendly visitor information

Cross Cutting Themes

Behaviour Change, Education, and Community Engagement

Within the next 7 years, the way we operate our businesses and the way we live will need to be different. Some of the actions above are technology-based solutions but most require behaviour change too. Behaviours that reduce greenhouse gas emissions (GHGs) need to be easy to adopt and people need to understand and desire the benefits for their health, prosperity, and quality of life. Everyone needs to feel they can be part of the solution. It also needs to be done in a way that is just, fair and leaves no one behind.

In all of the Community Conversations held over the summer of 2022, greater promotion and communication of actions to help tackle climate change was a popular recommendation in all sessions. This included promoting a range of actions such as waste minimisation and recycling, saving energy, improving homes and buildings and cycling routes, and wider environmental messages on the importance of protecting the natural environment by, for example, reducing littering and fly tipping.

As it stands there is not one coordinated public awareness raising campaign on tackling climate

change and its benefits. Developing this will require an organisation to lead the work and, most likely, will require funding and staff to deliver it on a continuous basis. Various Climate Partnership members including Torbay Council, SWISCo, Wild Plant Trust, TCCT, South Devon College, NHS, and the Geopark do promote a range of environmental issues but not in a fully coordinated way and not always under the umbrella of tackling climate change. Engaging with the public and businesses also needs different messages and approaches. Many recommendations were also made about working with schools and colleges.

Over the next two years we will:

Communicate action to tackle climate change locally

To support this Partners will:

- Torbay Community Development Trust will complete a review and recommendations on using the Torbay Together website as a platform for carbon neutral advice for local residents
- Torbay Climate Action will continue to provide talks to community groups across Torbay on tackling climate change
- Torbay Climate Action will hold carbon literacy training sessions for communities in Torbay from January 2023
- Torbay Council and SWISCo will promote a range of practical campaigns covering waste minimisation and recycling, saving energy and carbon, walking, and cycling and electric vehicle charging points. The Council will also update the climate change pages of its website
- Groundwork South will continue to work in Torbay schools promoting sustainable behaviour changes through local growing and waste minimisation classes, local field trips and practical projects across the school

However, given the scale of meeting this challenge, Torbay Climate Partnership will:

- Explore how to coordinate campaigns across the Partnership and deliver comprehensive awareness raising campaigns [20]across Torbay communities.
- Explore how to deliver comprehensive awareness raising campaigns across Torbay's businesses, focussing on campaigns to support the fishing Industry and Tourism sectors.
- Through the Government's Sustainability and Climate Change Strategy, teachers will be supported to deliver climate change education through a model science curriculum. The Partnership will explore how to get more support to schools and colleges.

Community Engagement

In all community conversations engaging the public through a range of community-based projects were recommended, including recommendations for clothes swap, toy library, community fridges, repair café, cloth nappy library. Some of these already exist like the monthly Nappiosinos, held to promote the use of real nappies, and Groundwork South's work supporting 3 neighbourhoods to develop local growing spaces including the Marvellous Melville project.

[20] These will cover practical advice on walking, cycling, electric vehicles, waste minimisation, reuse and repair, buying less, saving energy in our homes and businesses and the role of nature in tackling climate change and the protecting our local seagrass population. It will also be important to promote and celebrate local success and the wider benefits

Over the next two years partners will:
Engage with our communities and create more local community projects that will help tackle climate change

To support this Partners will:

- Torbay Community Development Trust (CDT) will start conversations and open up opportunities for the Voluntary Community and Social Enterprise (VCSE) sector to collaborate on carbon reduction projects like repair cafes/similar
- CDT will look at the option of whether their Torbay Helpline could support more sign posting for local residents to community groups and organisations linked to circular economy and carbon reduction
- Torbay Climate Action will continue to provide talks to community groups across Torbay
- Torbay Climate Action will hold carbon literacy training sessions for communities in Torbay from January 2023
- Torbay Climate Action will establish a community grow space in Paignton library by 2024
- Groundwork South to continue to work with communities across Torbay on a range of environmental projects (as per the nature Based Solutions section)

Climate Adaptation and Building Community Resilience

Aiming to limit carbon emissions is not enough. Depending on how successful the world is at reducing emissions, global temperatures by 2100 are likely to rise by between 1.5°C and 4°C above pre-industrial levels. As such, we need to accept that some level of change to our climate is inevitable.

We need to assess the risks to our communities and reduce their vulnerability to changes in climate. We need to learn to adapt to a changing climate and be better prepared and recover quickly from future events. This is what we mean by climate adaptation and building community resilience.

Some key risks that need to continue to be consider are:

- Flooding and coastal change risks to our communities, businesses, and infrastructure
- Risks to health, well-being, and productivity from higher temperatures
- Risks of water deficits in public water supply, and for agriculture with impacts on freshwater ecology
- Risks to natural capital, including soils, coastal, marine, and freshwater ecosystems, and biodiversity

Over the next two year we will:

Continue to build a climate resilient Torbay

To support this Partners will:

- Torbay Council and the TDA will continue to co-design with our communities a flood defence/alleviation solution for Paignton and Preston Sea fronts
- Environment Agency will continue to provide funding to Torbay Council for coastal risk management projects
- Torbay Council and the Environment Agency, through the Devon Flood, Coastal Risk Innovation Programme, will create two micro forest to reduce flood risk in Torbay
- The Environment Agency will commence work creating the Southwest Resilience Hub which will be a portal for communities across Devon to access information relating to flooding and coastal change
- Torbay Council will take part in the EU ARSINOE Project. This project will work with the University of Exeter to model flood risk and predicted future changes in climate to develop actions that will increase Torbay's resilience to a changing climate (including impacts on health and critical infrastructure)
- Torbay Council will use the results of the Met Office's Torbay City Pack and forthcoming Adaptation Plan for Devon, Cornwall, and the Isles of Sicily to ensure Torbay understands current and future vulnerability to a changing climate and takes actions to strengthen its resilience.

All actions are outlined in Appendix 1 - List of actions in the Torbay Climate Emergency Action Plan (separate document).

Summary of Top 25 Actions

1.Roll out energy saving clinics, community talks, recruit, and train 10 'Community Energy Champions' and over 200 home visits

By when? Mid 2023
Led by: Exeter Community Energy (ECOE)

2.Develop projects to help more homes to save energy through installing energy efficiency and low carbon measures

By when? 2025
Led by: ECOE, Torbay Council (TC), Devon County Council (DCC)

3.Help more homes out of fuel poverty through installing energy efficiency and low carbon measures

By when? 2025
Led by: ECOE, TC, DCC

4. Launch the new Devon Energy Service in Torbay (to provide simple advice on saving energy and retrofitting homes and a referral service)

By when? 2023
Led by: ECOE, TC, DCC

5.Strengthen planning requirements to make new developments net zero operational carbon with EV charging points

By when? 2025
Led by: TC

6.Work in partnership with high energy users in Torbay and share best practice

By when? 2025
Led by: TC

7.Develop support for small businesses to help them save money, through saving carbon, energy waste and water

By when? 2025
Led by: Torbay Development Agency (TDA)

8.Explore developing appropriate clean energy projects and a local area energy plan to help transition our local energy system

By when? 2025
Led by: TC, DCC

9.To encourage cycling and walking, improve the safety of our roads

By when? 2025
Led by: TC, Sustrans

10.Explore an affordable One Ticket option for all bus travel in the Bay

By when? 2025
Led by: TC, Bus Partnership once fully established

11.Invest in sustainable travel options including more cycling, wheeling, and walking routes

By when? 2025
Led by: TC

12.Set up a community electric car and bike share scheme

By when? 2024
Led by: TC

13.Increase zero emission buses across Torbay

By when? 2025
Led by: TC, Bus Partnership once fully established

14.Roll out public electric charging points in Torbay

By when? 2023
Led by: TC, DCC

15.Develop a new Local Transport Plan for Torbay

By when? 2024
Led by: TC, DCC

16.Support walking, cycling, and scooting to school projects

By when? 2025
Led by: TC

17.Continue to increase the recycling rate towards 60%

By when? 2025
Led by: SWISCo

18.To reduce waste, explore establishing a community repair café

By when? 2024
Led by: Various

19.Explore more local community based growing projects

By when? 2024
Led by: Various

20.Develop a new Green and Blue Infrastructure Strategy for Torbay to protect our inspiring natural environment

By when? 2024
Led by: TC

21.Help store carbon by protecting our local sea grasses

By when? 2025
Led by: Marine Forum, Torbay Harbour Authority

22.Develop a green tourism award

By when? 2025
Led by: Various

23.Explore setting up a Torbay Community Action Group or similar to create more local community projects

By when? Early 2025
Led by: Various

24.Explore how to deliver more local campaigns to encourage sustainable lifestyles and save money

By when? 2025
Led by: Torbay Climate Partnership, led by the English Riviera UNESCO Global Geopark

25.Explore how to deliver more local campaigns in schools to encourage sustainable lifestyles

By when? 2025
Led by: Torbay Climate Partnership

What Can I Do?

There are lots of things you can do about climate change from calculating our carbon footprint to walking more, buying green energy, switching to go car free, eating a plant-based diet, hang-drying clothes, recycling and upgrading light bulb, to name but a few ideas.

A great place to start is to look at the Devon Climate Emergency What Can I do section of the website(Top Tips for Everyone – Devon Climate Emergency) and Torbay Council's Take Action page here.

What Organisations Can Do?

Organisations across Torbay are taking action to tackle climate change. Actions such calculating your carbon footprint and using less energy, water and waste and transitioning your fleet to zero emission alternatives are just some ideas. Many actions can also help your organisation save money. A great place to start is Devon Climate Emergency What can my organisation do? Webpage (Resources for Organisations – Devon Climate Emergency)

Funding The Transition

The actions that appear in this plan have been explored with a range of local and regional partners. Many only require staff/volunteers time to deliver. Others require funding and/or additional staff capacity to deliver. It is not possible to estimate the total cost to deliver this plan, nor is it for one organisation to fund. In some instances, partners who have agreed to deliver actions in this plan will need to explore additional resources before delivery can commence. Exploring the funding is part of this work.

Measuring Success

This plan aims to set Torbay on an accelerated path towards carbon neutral by 2030. It is a 2-year plan. Subsequent plans will be developed all the way up to 2030.

The data used to establish Torbay's carbon emissions baseline was collated by University of Exeter Centre for Energy and Environment. This data shows carbon dioxide emissions in Torbay have reduced by 40 percent between 2008 and 2020 (see Figure 10 below). To achieve carbon neutrality in Torbay would mean that Torbay will need to reduce its emissions to as near to zero as possible by 2030. Where this is not possible, and emissions remain in 2030, Torbay will need to offset these residual emissions annually through local/regional schemes that store carbon i.e. tree planting or through greenhouse gas removal technologies (if available).

Currently the average total annual change in Torbay emissions was four percent[21]. The annual change required to achieve zero carbon emissions by 2030 is seven percent (University of Exeter: Torbay's 2020 greenhouse gas inventory and sector emissions monitoring 2022). Therefore much more action is needed.

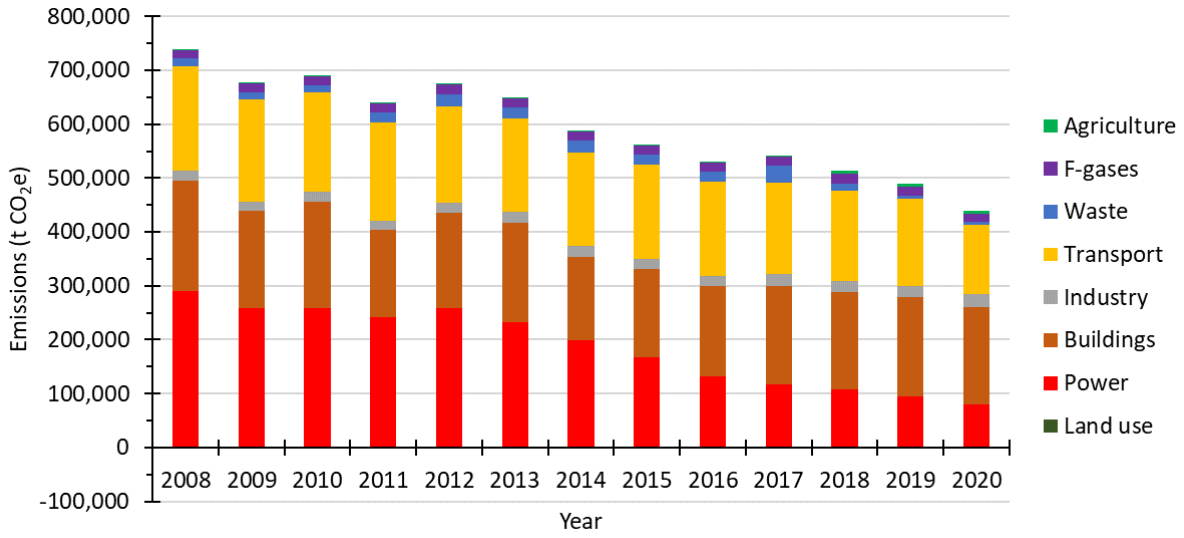


Figure 10: Torbay's CO2e emissions between 2008 - 2020

This plan does not quantify the carbon savings associated to each proposed actions to be carried out. This is because many actions are enabling actions or are actions that have too many elements that any quantification would be greatly inaccurate.

Instead, Torbay Climate Partnership will annually monitor delivery of all actions in the Action Plan and Torbay's total emissions (tCO_2e) up to 2030 and beyond. Torbay's emissions data is collated from government data and takes nearly 2 years to become available. Therefore, to make sure we are making progress, we need to supplement this data with other available data and set interim targets up to 2030.

To help with this the Partnership has established a range of local outcomes this plan aims to deliver for Torbay. These are based on the objectives of this action plan. These will show what success will look like for everyone in Torbay if we achieve the Vision and Objectives of this plan.

Objective 1.High take-up of energy-efficiency measures, renewable energy and low-carbon heating technologies in all homes and business premises

[21] Based on 2016 – 2019 data

Outcome: Torbay will have more homes and buildings that are energy efficient, generate renewable energy and are healthier to be in

Indicators: see below.

Objective 2 Carbon neutral new buildings

Outcome: All new buildings will be energy efficient, generate renewable energy and be healthy to be in

Indicators: See below.

Objective 3 Reduce the need to travel and shift to sustainable transport options

Outcome: Cleaner air and healthier residents that use their cars less

Objective 4 Technology to reduce emissions from vehicles

Outcome: Cleaner air and less pollution from vehicles

Indicators: See below

Objective 5 Avoid Waste

Outcome: We all buy less and waste less

Indicators: See below

Objective 6 Maximise carbon storage in the environment

Outcome: Cleaner air and water, increased biodiversity and less flooding in Torbay
Indicators: See below

Objective 7 Transition our power sector to renewables

Outcome: Local energy generation with residents and businesses less susceptible to future global energy shocks and price volatility
Indicators: See below

Objective 8 Support businesses to transition to carbon neutral

Outcome: Businesses that are energy, water and waste efficient
Indicators: See below

Objective 9 Build a climate resilient Torbay

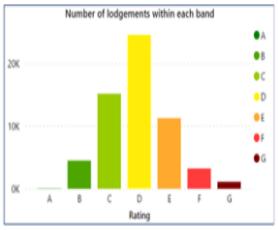
Outcome: Torbay is prepared for a changing climate and can recover quickly from future events
Indicators: See below

Objective 10 Communicate action to tackle climate change locally

Outcome: Residents and businesses adopting more sustainable, low carbon lifestyles.
Indicators: See below

To ensure we can track progress against the objectives and outcomes of this plan, a set of interim indicators are being established. The University of Exeter have is developing these for use in this plan, and subsequent plans, all the way up to 2030.

Table 2 below will be developed with a range of indicators and interim targets. We will publish these in January 2023 as an addendum to this draft.

Vision	Indicator	2019 baseline	Source
Carbon Neutral 2030	Area-wide territorial emissions (tC02e)	437,000 (tC02e)	University of Exeter
Objectives	**Indicator**	**2019 baseline**	**Source**
High take-up of energy-efficiency measures, renewable energy and low-carbon heating technologies in all homes and business premises	Homes supported through local government funded schemes	119 homes (£884k) LAD 2 (Heat Devon) (2021/22)	Devon County Council/delivery partners
High take-up of energy-efficiency measures, renewable energy and low-carbon heating technologies in all homes and business premises	Number of local advice provided	115 in depth assessments, 17 Clients and 217 people Q2 2022	Exeter Community Energy
High take-up of energy-efficiency measures, renewable energy and low-carbon heating technologies in all homes and business premises	Number of Devon's homes with an Energy Performance Certificate of D – G	Fig 1 Torbay properties' energy efficiency 	LUHC (2022) Energy Performance of Buildings Data England and Wales. Available at: https://epc.opendatacommunities.org
	Torbay's energy consumption		BEIS (2021), Estimates of total final energy consumption from 2005 to 2019 at a country, regional and local authority level. Available at: Total final energy consumption

	Others - to follow as an addendum		
Carbon neutral new buildings (planning)	To follow as an addendum		
Reduce the need to travel and shift to sustainable transport options	To follow as an addendum		
Use technology to reduce emissions from vehicles	To follow as an addendum		
Avoid waste	Residual household waste per household	124.28 kg	Local Data
	Percentage of household waste that is sent for reuse, recycling, or composting	37% Q 2 2022	Local Data
	Others – to follow as an addendum		
Maximise natural carbon storage in the environment	To follow as an addendum		
Transition our power sector to renewables	To follow as an addendum		
Support businesses to transition to carbon neutral	To follow as an addendum		
Build a climate resilient Torbay	To follow as an addendum		
Communicate action to tackle climate change locally	To follow as an addendum		

Table 2. developing monitoring plan

This document can be made available in other languages and formats.

For more information, please contact future.planning@torbay.gov.uk