# Frequently asked questions

## What does the Climate science say?

Our planet's climate is in a state of unprecedented change. Throughout its history, Earth has experienced fluctuations between glacial (cold) and interglacial (warmer) periods, but the rapid warming observed in recent history is unlike anything in the past 4.6 billion years[[1]](#footnote-2). The Intergovernmental Panel on Climate Change (IPCC) has provided unequivocal evidence that human activities are the dominant cause of global warming since the mid-20th century This conclusion is supported by rigorous research and an overwhelming consensus in the scientific community. A summary is available [here](https://www.gov.uk/guidance/climate-change-explained). For more information visit the MET office website [here](https://www.metoffice.gov.uk/weather/climate-change/what-is-climate-change).

According to the IPCC, we need to keep temperatures below 1.5°C to limit the climate-related risks which will impact our natural and human systems. Many land and ocean ecosystems and some of the services they provide have already changed due to global warming. Examples have been evidenced through our oceans are warming[[2]](#footnote-3), glaciers and polar ice is melting[[3]](#footnote-4), sea level is rising[[4]](#footnote-5) and we are seeing more extreme weather events[[5]](#footnote-6).

These climate-related risks can be reduce with clear actions to limit the production of carbon emissions from human activities, whilst also taking action to reduce the effects of climate change that we will continue to experience[[6]](#footnote-7).

Why are we doing this?

The science is clear: we need to reduce carbon dioxide emissions rapidly and prepare for the effects of a changing climate. Torbay needs a coordinated plan as tackling climate change requires all of us to take action, and key partners need to know what they can do and by when to help us all take action.

## What do the actions mean in this new Greener Way for the Bay Action Plan

1. Run energy saving clinics, give community talks, recruit, and train, 10 'Community Energy Champions' and visit over 250 homes in need of saving energy advice and grants

*This means Exeter Community Energy putting on events locally to help promote saving energy. It also means trying to get 10 people to become community energy champions. These are people that will help shout about the benefits of saving energy and how to do it in our homes. 250 people will also have an energy expert come to their house and help them save energy.*

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

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

*This means the Council, Exeter Community Energy and others exploring how other places are delivering more energy saving projects and securing funding to make them happen in Torbay.*

4. Promote Energy Saving Devon (a full support service that can help you upgrade your home)

*This means the Council, Exeter Community Energy and others in Torbay promoting this new energy saving service that can help people install energy saving measures and access available grants.*

5. Strengthen rules required to make new developments net zero carbon with EV charging points

*This means revising local planning rules to require all new homes and buildings to be designed and built in ways that reduce the impact on the environment.*

6. Work in partnership with companies that use a lot of energy in Torbay and share best practice to help them work towards net zero

*This means working with the public sector to reduce their impact on the environment, focussing initially on reduce energy usage and saving carbon emissions.*

7. Deliver Make it Net Zero Torbay to help 250 small businesses to save money, through saving carbon, energy waste and water

*This is a programme that can help businesses save energy, water, waste and carbon emissions.*

8. Work with National Grid and partners on developing an local energy plan to ensure Torbay's energy system is ready for a low carbon future

*This is a plan that will identify the necessary changes needed to our local energy system to meet our future net zero ambitions. For more information see* [*here*](https://es.catapult.org.uk/tools-and-labs/local-area-energy-planning/#:~:text=Local%20Area%20Energy%20Planning%20(LAEP,its%20local%20Net%20Zero%20target.)*.*

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

And

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

*This means the Council working with partners to secure funding to deliver its* [*Local Cycling, Walking Investment Plans*](https://www.torbay.gov.uk/roads/travel/active-travel/local-cycling-and-walking-infrastructure-plan/)

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

*This is the Bus Partnership developing a bus ticket that can be used on all buses across Torbay, regardless of the operator.*

12.Set up community electric car and bike hire clubs

*This means Torbay Council and partners exploring options and delivering electric cars and bikes that can be hired out by the community to use.*

13. Increase zero emission buses across Torbay

*This means the Torbay Bus Partnership working together to increase the numbers of electric buses operating across Torbay.*

14. Place public electric charging points across Torbay

*This means the Council working with Devon County Council to install a number of electric vehicle charging points across Torbay’s public car parks.*

15. Develop a new long-term plan for how we travel about Torbay (a Local Transport Plan for Torbay)

*This means develop a new long term plan for transport in Torbay. This will replace the existing plan* [*here.*](https://www.torbay.gov.uk/council/policies/transport/local-transport-plan/) *It will cover areas like walking, cycling, public transport and decarbonation of the local system over time.*

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

*This means exploring options and delivering actions that will encourage more walking and cycling/ others to schools.*

17.Continue to reduce waste and increase recycling, working towards the national recycling target of 60% by 2030

*This means SWISCo carrying out a range of actions as outlined in their* [*Waste Management Strategy*](https://www.torbay.gov.uk/council/policies/environmental/waste-management-strategy/#:~:text=In%20accordance%20with%20the%20Council%E2%80%99s%20Community%20and%20Corporate,and%20exceeding%20government%20targets%20for%20waste.%20More%20items) *and forthcoming strategies as they arise.*

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

*This means partners exploring options and delivering a project that can repair broken household items locally.*

19.Explore more local community based growing projects

*This means Torbay Communities exploring options and securing funding to deliver more projects that help Torbay residents grow their own food.*

20. Develop a new plan to restore and protect nature

*This means creating a coordinated set of actions that will help enhance and protect nature on land and in the sea. These are sometimes called Green and Blue Infrastructure Action Plans.*

21.Help protect our local sea grasses

*This means partners carrying projects that will protect local sea grasses in Tor Bay, including actions to raise awareness, actions to reduce the impact of vessels mooring near sea grasses and creating a Marine Vision (a vision for how harbour users and other marine user use our seas)*

 22. Develop a green tourism programme and award

*This means a range of partners talking to tourism related businesses and developing a programme of support and award system to celebrate their successes.*

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

*This means looking at getting more dedicated support that can help communities in Torbay set up local projects. An example of what is happening in Devon is* [*here.*](https://cagdevon.org.uk/)

24. Torbay Climate Partnership to tell positive stories of action happening across Torbay

*This means collating good news stories about people and businesses taking action and promoting more action like it across Torbay.*

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

*This means working with young people to promote a range of things they can do.*

26. Review best practice innovative ways to encourage Torbay to take action

*This means exploring how other areas are using innovative ways to encourage and incentivise local action.*

27.Torbay Council will use the results of the Met Office’s Torbay City Pack and Devon, Cornwall, and Isles of Scilly’s Adaptation Strategy to assess and ensure Torbay understands current and future vulnerability to a changing climate and takes actions to adapt and prepare.

*This action is about adapting to a changing climate. Unlike the actions above which aim to reduce carbon emissions, this action is about understanding our changing climate and planning for this now and in the future. This action will use evidence available from the* [*MET Office*](https://www.metoffice.gov.uk/weather/climate/solutions/climate-change-adaptation) *and* [*Devon, Cornwall, and Isles of Scilly’s Adaptation Strategy*](https://www.climateresilient-dcios.org.uk/) *to make sure we are prepared and take action to minimise the impacts of a changing climate on Torbay.*

28. Explore finance models to help accelerate climate actions

*This action is about exploring how to draw in investment into Torbay to help pay for some actions above.*

29. Develop a list of asks to lobby central government on, asking for more support to deliver this work

*This action is about writing to the Government to ask for further support to deliver this work.*

## Are we looking at introducing 15 Minutes City principles and restricting peoples’ travel movements?

No. There are a range of actions in this plan that are about improving and offering a range of low emission ways to travel. It is not restricting the freedom to travel about Torbay. A full statement is available here which clarifies some previous misinformation on the topic. [Clarification on climate flyers and meeting - Torbay Council](https://gbr01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.torbay.gov.uk%2Fnews%2Fpr8834%2F&data=05%7C01%7CJacqui.Warren%40torbay.gov.uk%7Cd37dbcb9c2984002bdbe08dbdeaf21eb%7C13577bd8494345d98d3c304f184f6582%7C0%7C0%7C638348615986391813%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=5UWHekEnwn9GKUVqqZukDLwRJIofMkj9yrvg4O041ow%3D&reserved=0)  The actions in the latest plan are about improving choice for residents.

## What about the environmental concerns linked to electric vehicles?

Some concerns have been raised about the environmental impact of electric vehicles. According to research carried out, an electric vehicle over its whole lifetime (from manufacturing, use and through to disposal) uses less greenhouse gas emissions when compared to a traditional combustion engine, even when taking into consideration the higher emissions generated during the manufacturing phase. Any greenhouse gas emissions generated through the charging of the electric vehicles are offset overtime as a result of the lower emissions per kilometre used when driven (European Environment Agency)[[7]](#footnote-8).The carbon dioxide emissions used to power electric vehicles will also continue to decrease as our national electricity grid continues to generate more electricity from renewable and low carbon energy. This is evidenced in countries like Sweden, which creates most of its electricity through renewable energy sources, enabling an EV to further limit its GHG emissions over its lifetime[[8]](#footnote-9). In the UK, this additional power required to charge electric vehicles is factored into national plans. The Government wants to see ambitious, quicker expansion of nuclear, wind, solar, hydrogen, oil and gas. 95 percent of Great Britain’s electricity is set to be low carbon by 2030 (Energy Security Strategy, UK Government 2022)[[9]](#footnote-10).

Producing lithium-ion batteries for electric vehicles uses more materials than producing traditional combustion engines. There are new initiatives being introduced by the UK Government to shorten this and limit the carbon footprint for extracting and refining lithium. Projects to mine lithium in Cornwall have received funding and investment to set up plants and expand their exploratory drilling[[10]](#footnote-11). The Automotive Transformation Fund (ATF) is supporting several initiatives to develop lithium refineries[[11]](#footnote-12) within the UK, further shortening the processing of lithium. Ten gigafactories are set to be built within the UK to meet the demand for electric batteries, which by 2040, will each be producing 20 GWh per year of batteries[[12]](#footnote-13). There is also consideration for the recycling and repurposing of ion-lithium batteries, for example, the storage of energy[[13]](#footnote-14).

## Is it deliverable and what are the costs?

A range of actions are needed to deliver the new Greener Way for our Bay Framework and Action Plan. Some actions can be delivered immediately; however, some actions will take time to plan and secure funding for. We also need to take time to understand how we can deliver some actions in a fair way for everyone in Torbay. Some actions can only happen if delivered through Government plans. So, we cannot plan for everything needed to happen straight away, but we need to have a long-term plan that can be adapted based on changes.

The costs of the actions that appear in this document 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 work up to 2050, nor is it for one organisation to fund. Exploring the funding is part of this work. Where it is possible, some priority actions to be delivered over the next three years have been estimated to cost £56 million. Of this cost, it does not fall on any one organisation to fund, but a range of partners. Some are already fully funded and therefore have no additional cost to deliver. In some instances, partners who have agreed to deliver actions will need to explore additional resources before delivery can commence.

### Cost to me?

Some costs will fall to us all, especially to make our homes and businesses energy efficient and heated by low/zero carbon emission alternatives like heat pumps. The Climate Change Committee (CCC) estimates that the total investment costs are less than £10,000 per household on average. 63 percent of homes need spend no more than £1,000 on retrofitting energy efficiency measures[[14]](#footnote-15). Once measures are installed, many will result in lower energy bills. The CCC also found that nationally, changing our behaviour and saving energy in our homes, can deliver cost savings in the region of £0.4 billion a year by 2050. Given the cost of living crisis and the number of people living in fuel poverty in Torbay, we know we need to try and provide support for those people that cannot afford to make changes. We also know we need to find ways to offer a range of cheap, reliable low / zero carbon emission ways to travel about Torbay.

## What’s changed since you last asked us about the Torbay Climate Emergency Action Plan?

The TCP have decided to amend their Torbay Climate Emergency Action Plan (TCEAP) in line with some of the responses received from a public consultation on the plan held earlier this year. Below are some proposed changes that now feature in the new Greener Way for our Bay Framework and Action Plan:

* Align Torbay’s target with the UK Government’s national Net Zero 2050 target. This is in response to the concerns about the deliverability, speed and impact of going early and meeting a carbon neutral 2030 target for Torbay.
* Further clarity on all transport related actions will be given in the new plan and to avoid confusion with 15/20 minute cities/similar concepts that are not in any plans for Torbay.
* Some concern was also raised as to who will fund the required works and that residents will be stuck footing expensive bills to improve their homes or buy electric vehicles by 2030. To the best of the TCP control, they will try and explore and secure funding to help ensure a fair and just transition, particularly as central government legislation comes into effect i.e. the ban[[15]](#footnote-16) on new petrol and diesel cars in 2035 or the 80% reduction in gas boilers by 2035[[16]](#footnote-17). Please note that the TCEAP (and new Greener way for our Bay framework and action plan) do not force any actions onto residents and business. Most actions are about encouraging change via local advice and projects or about accessing and promoting central government grants to support action for those that need it. Actions to secure more funding have been added to the plans.
* To try and alleviate some concerns raised about impacts on delivering actions in Torbay, a high-level economic, social, equalities and environmental impact assessment on the Top 25 actions in this proposed action plan has been carried. No actions were deemed to have a negative effect. All subsequent action plans priority actions will also undergo such an assessment/similar.
* This new framework and action plan avoids the use of climate emergency as feedback suggested this caused alarm and anxiety in some residents.

# Jargon Busting

***Active Travel*** - Making journeys by physically active means, like walking or cycling.

***Carbon Dioxide equivalent (CO2e)*** - CO2e is the abbreviation for 'carbon dioxide equivalent.' CO2e is used to measure and compare emissions from greenhouse gases based on how severely they contribute to global warming. For ease this document will refer to these emissions as carbon emissions

***Carbon Emissions*** – For the purpose of this document we have abbreviated Carbon dioxide to carbon emissions. These are emissions that planes, cars, factories, etc. produce that is harmful to the environment. [**Click here**](https://ourworldindata.org/co2-emissions) for more information.

***Carbon Footprint*** - A measure of the amount of carbon dioxide released into the atmosphere by an individual, an organisation or a geography’s activities over a particular period.

***Carbon Neutral*** - This means taking as much carbon dioxide equivalent (CO2e) gases out of the atmosphere as we put in. We will reduce emissions to as near to zero as possible. Where residual emissions exist, these will be balanced by removals from the atmosphere. [**Click here**](https://www.nationalgrid.com/stories/energy-explained/carbon-neutral-vs-net-zero-understanding-difference) for more information.

***Carbon Offset*** - An action intended to compensate for the emission of carbon dioxide into the atmosphere, such as tree planting. [**Click here**](https://environmentagency.blog.gov.uk/2021/05/10/carbon-offsetting-reviewing-the-evidence/) for more information.

***Carbon Storage*** – The long-term storage of carbon dioxide from the atmosphere naturally in plants, soils, and the ocean, or capturing it with technology and permanently storing it underground.

***Climate Change Committee*** - The Climate Change Committee (CCC) is an independent, statutory body established under the Climate Change Act 2008. Their purpose is to advise the UK and devolved governments on emissions targets and to report to Parliament on progress made in reducing greenhouse gas emissions and preparing for and adapting to the impacts of climate change. [**Click here**](https://www.theccc.org.uk/)for more information.

***Circular Economy*** - A circular economy is based on the principles of designing out waste and pollution, keeping products and materials in use (reusing and recycling) and regenerating natural systems. [**Click here**](https://www.ellenmacarthurfoundation.org/topics/circular-economy-introduction/overview) for more information.

***Decarbonisation*** - The reduction or removal of carbon dioxide and other greenhouse gases to achieve zero emissions.

***Electric Vehicle (EV)*** - EVs are vehicles that are either partially or fully powered on electric power.

***Fossil Fuels*** - Anatural fuel such as coal or gas, formed in the geological past from the remains of living organisms.

***Fugitive Gases*** - Emissions due to leaks and other unintended or irregular releases of greenhouse gases.

***Greenhouse Effect*** - A process that occurs when gases in Earth’s atmosphere trap the Sun’s heat, warming the Earth’s surface. [**Click here**](https://education.nationalgeographic.org/resource/greenhouse-effect/) for more information.

***Greenhouse Gas*** - An atmospheric gas that traps heat by letting sunlight pass through the atmosphere but prevents heat from leaving the atmosphere. [**Click here**](https://www.metoffice.gov.uk/weather/climate-change/causes-of-climate-change) for more information.

***Green Tourism*** - Green tourism is a form of ecotourism that involves visiting natural areas while minimizing environmental impacts. [It is a low-impact tourism that aims to protect the environment and culture of an area](https://www.bing.com/ck/a?!&&p=e1753de7271c218cJmltdHM9MTY5ODg4MzIwMCZpZ3VpZD0xMDk0Mzg3My1mNDdjLTY2NTktMDY0ZS0yYmViZjUxYTY3ZDgmaW5zaWQ9NTc0Mw&ptn=3&hsh=3&fclid=10943873-f47c-6659-064e-2bebf51a67d8&psq=green+tourism+definition&u=a1aHR0cHM6Ly93d3cud2lzZXRvdXIuY29tL3doYXQtaXMtZ3JlZW4tdG91cmlzbS5odG0&ntb=1). [Green tourism tries to both minimize and reverse the negative effects of travel](https://www.bing.com/ck/a?!&&p=eefe54508703ffe3JmltdHM9MTY5ODg4MzIwMCZpZ3VpZD0xMDk0Mzg3My1mNDdjLTY2NTktMDY0ZS0yYmViZjUxYTY3ZDgmaW5zaWQ9NTc0NQ&ptn=3&hsh=3&fclid=10943873-f47c-6659-064e-2bebf51a67d8&psq=green+tourism+definition&u=a1aHR0cHM6Ly9oZXJpdGFnZWhvdGVsc29mZXVyb3BlLmNvbS9ncmVlbi10b3VyaXNtLXdoYXQtaXQtaXMtYW5kLXdoeS1pdC1pcy1zby1pbXBvcnRhbnQv&ntb=1). [**Click here**](https://www.nationalgeographic.com/travel/article/how-to-travel-better-a-beginners-guide-to-sustainable-travel-in-2023-and-beyond) for more information.

***Gross Domestic Product*** - the total value of goods produced, and services provided in a country for one year.

***Methane*** - A strong greenhouse gas that is emitted from the production of coal, natural gas and oil, livestock, and agricultural practices and from waste landfills.

***Nature Based Solutions*** - These solutions involve protecting, restoring, and sustainably managing ecosystems in ways that increase their resiliency and ability to address those societal challenges, while also safeguarding biodiversity and improving human wellbeing

***Net Zero*** - Having an equal balance between the amount of carbon emitted to the atmosphere by an activity and the amount of carbon absorbed from the atmosphere by a natural carbon store, such as a woodland, or a technological process such as carbon capture and storage. [**Click here**](https://www.carbontrust.com/news-and-insights/insights/what-is-net-zero-and-why-does-it-matter) for more information.

***Renewable Energy -*** Energy that comes from resources which are naturally replenished on a human timescale such as sunlight, wind, rain, tides, waves, and geothermal heat. [**Click here**](https://education.nationalgeographic.org/resource/renewable-energy/) for more information.

***Sustainable Transport -*** Sustainable transport refers to transportation that is or approaches being sustainable. Sustainable transport creates little or no pollution, such as walking or bicycle commuting, and relies on renewable energy or regenerated energy rather than fossil fuels. Behavioural

***Wheeling*** - Wheeling is a term used alongside walking to describe a wider range of people who may not identify themselves with the term 'walking'. This may or may not include people who travel using wheelchairs, mobility scooters, other walking aids, prams, buggies, etc. In common with each other, walking and wheeling involve travelling at a pedestrian pace. Wheeling is a form of active (i.e. fully or partially people powered) travel. Active travel also includes walking, cycling, scooting, skateboarding, roller skating - i.e. modes of non-vehicular travel that involve physical activity.

***Zero Carbon*** - When no carbon emissions are being produced from a product or service. [**Click here**](https://www.nationalgrideso.com/future-energy/our-progress-towards-net-zero/net-zero-explained/what-net-zero-and-zero-carbon) for more information.

1. The Intergovernmental Panel on Climate Change (IPCC) is a scientific body of the United Nations. The UK Government fully supports the work of the IPCC. It regards the IPCC’s assessments as the most authoritative view on the science of climate change. IPCC reports undergo an unparalleled, rigorous, and transparent international preparation and peer-review process by scientific experts and governments before they are published   [↑](#footnote-ref-2)
2. WMO, 2023, State of the Climate 2022. Chapter: ‘Ocean’ Page 6 [↑](#footnote-ref-3)
3. WMO, 2023, State of the Climate 2022. Chapter: ‘Cryosphere’ Page 13 [↑](#footnote-ref-4)
4. IPCC, 2021, Climate Change 2021: The Physical Science Basis, Technical Summary, Box TS.4 [↑](#footnote-ref-5)
5. IPCC, 2021, Climate Change 2021: The Physical Science Basis, Summary for Policymakers, Section A.3 & IPCC, 2021, Climate Change 2021: The Physical Science Basis, Summary for Policymakers, Section B.2 [↑](#footnote-ref-6)
6. IPCC, 2023, Climate Change 2023 Synthesis Report, Chapter 2 ‘Adaption Gaps and Barriers’ Page 61 [↑](#footnote-ref-7)
7. [Electric vehicles from life cycle and circular economy perspectives - TERM 2018 — European Environment Agency (europa.eu)](https://www.eea.europa.eu/publications/electric-vehicles-from-life-cycle) [↑](#footnote-ref-8)
8. [How green are electric cars? Green NCAP releases first life cycle assessment figures - Which? News](https://www.which.co.uk/news/article/how-green-are-electric-cars-green-ncap-releases-first-life-cycle-assessment-figures-awf2B6W8D4Zs) [↑](#footnote-ref-9)
9. [British Energy Security Strategy (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/media/626112c0e90e07168e3fdba3/british-energy-security-strategy-web-accessible.pdf) [↑](#footnote-ref-10)
10. In Cornwall, ruinous tin and copper mines are yielding battery-grade lithium. Here's what that means. – National Geographic [↑](#footnote-ref-11)
11. Resilience for the Future: The UK’s Critical Minerals Strategy – GOV.UK [↑](#footnote-ref-12)
12. UK Electric Vehicle and Battery Production Potential to 2040 – update published June 2022 – The Faraday Institution [↑](#footnote-ref-13)
13. More sustainable energy from used electric vehicle batteries – Faraday Institution [↑](#footnote-ref-14)
14. [Sector-summary-Buildings.pdf (theccc.org.uk)](https://www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Buildings.pdf) [↑](#footnote-ref-15)
15. You can still use your petrol/diesel car after this date. You can also buy a second hand car after this date. It is just banning new petrol and diesel cars and vans from 2030. [↑](#footnote-ref-16)
16. You can still use your gas boiler after this date. [↑](#footnote-ref-17)