PLACE SCRUTINY COMMITTEE

Date: Tuesday 18 June 2019
Time: 5.30 pm
Venue: Rennes Room - Civic Centre

Members are invited to attend the above meeting to consider the items of business.

If you have an enquiry regarding any items on this agenda, please contact Sharon Sissons, Democratic Services Officer (Committees) on 01392 265115.

Entry to the Civic Centre can be gained through the Customer Service Centre, Paris Street.

Membership -
Councillors Sills (Chair), Buswell (Deputy Chair), Atkinson, Henson, D, Lyons, Moore, D, Moore, J, Owen, Pattison and Williams

Agenda

Part I: Items suggested for discussion with the press and public present

1 **Apologies**

To receive apologies for absence from Committee members.

2 **Declaration of Interests**

Councillors are reminded of the need to declare any disclosable pecuniary interests that relate to business on the agenda and which have not already been included in the register of interests, before any discussion takes place on the item. Unless the interest is sensitive, you must also disclose the nature of the interest. In accordance with the Council's Code of Conduct, you must then leave the room and must not participate in any further discussion of the item. Councillors requiring clarification should seek the advice of the Monitoring Officer prior to the day of the meeting.

3 **Local Government (Access to Information) Act 1985 - Exclusion of Press and Public**

It is considered that the Committee would be unlikely to exclude the press and public during consideration of the items on this agenda, but if it should wish to do so, the following resolution should be passed:-

RECOMMENDED that, under Section 100A(4) of the Local Government Act

1972, the press and public be excluded from the meeting of the particular item(s) on the grounds that it (they) involve(s) the likely disclosure of exempt information as defined in the relevant paragraphs of Part I of Schedule 12A of the Act.

4 **Questions from the Public under Standing Order 19**

Details of questions should be notified to the Corporate Manager Democratic and Civic Support at least three working days prior to the meeting. Further information and a copy of the procedure are available from Democratic Services (Committees) (Tel: 01392 265115) and also on the Council web site - https://exeter.gov.uk/councillorsfaq/.

5 **Questions from Members of the Council under Standing Order 20**

To receive questions from Members of the Council to appropriate Portfolio Holders.

ITEMS FOR CONSIDERATION BY THE EXECUTIVE

6 **Towards Carbon Neutral Exeter**

To consider the report of the Programme Director for Exeter City Futures and the Deputy Leader & Portfolio Holder for Climate and Culture. (Pages 3 - 32)

Date of Next Meeting

The next meeting of the Place Scrutiny Committee will be held on **Tuesday** 25 June 2019 at 5.30 pm in the Civic Centre.

Find out more about Exeter City Council services by looking at our web site *http://www.exeter.gov.uk.* This will give you the dates of all future Committee meetings and tell you how you can ask a question at a Scrutiny Committee meeting. Alternatively, contact the Democratic Services Officer (Committees) on (01392) 265107 for further information.

Follow us:
www.twitter.com/ExeterCouncil
www.facebook.com/ExeterCityCouncil

Individual reports on this agenda can be produced in large print on request to Democratic Services (Committees) on 01392 265107.

REPORT TO EXECUTIVE
Date of Meeting: 11 June 2019

REPORT TO PLACE SCRUTINY (SPECIAL)
Date Meeting: 18 June 2019

REPORT TO COUNCIL
Date Meeting: 23 July 2019

Report of: Programme Director - Exeter City Futures and the Deputy Leader / Portfolio Holder for Climate and Culture.

Title: Towards Carbon Neutral Exeter

Is this a Key Decision?

No
* One that affects finances over £1m or significantly affects two or more wards. If this is a key decision then the item must be on the appropriate forward plan of key decisions.

Is this an Executive or Council Function?

Council

1. What is the report about?

1.1 On 15th March 2019 Exeter City Council, declared a commitment to make Exeter a Carbon-Neutral City by 2030. This ambition is aligned to the vision for the City and has potential to make a vital contribution to our planet and all its people.

1.2 Exeter has been playing a role in rising to the critical climate change challenge for some time and the City already has a world-class reputation in climate and environmental research. Over the past decade the City Council have pioneered Passivhaus standards in the UK, deployed renewable generation across their public sites and delivered large-scale district heating networks.

1.3 In 2016, Exeter City Council and Global City Futures established Exeter City Futures Community Interest Company (ECF CIC), as an organisation to support the creation of a vibrant and sustainable Exeter. Joined in 2018 by Devon County Council, Exeter College, the University of Exeter, Global City Futures and the Royal Devon and Exeter NHS Trust, ECF CIC provides the supporting environment and governance that can deliver a carbon neutral City.

1.4 Exeter has the opportunity to show leadership among cities through decisive implementation of policies, innovations and investment that shape the way we live and our environmental impact for decades to come. This report (and attached paper) makes recommendations as to the next steps that Exeter City Council should take in order to deliver the commitment to become carbon neutral.

2. Recommendations:

2.1 That Executive recommends, that Council declare a ‘Climate Emergency’.

2.2 That the Executive are minded to recommend the following to the Council on 23 July, subject to detailed consideration by a special meeting of Place Scrutiny, scheduled for 18 June 2019, with the results of that consideration being reported back to Executive on 9 July 2019.

2.3 That the carbon neutral target for Exeter is framed in a way that links to wider regional targets. This shows Exeter's intention to decrease its emissions without increasing emissions in the wider region.

2.4 That Exeter City Council commit to their operations becoming carbon neutral ahead of the 2030 date and mobilise resource to develop internal plans to deliver the target.

2.5 That Exeter City Council request a **"Zero Carbon Delivery Team"** is convened by ECF CIC to establish a city plan for delivery that builds on the Energy Independence Roadmap produced by ECF CIC and uses the 12 Goals as the basis of the approach (see Appendix 1 to this report for a list of the Goals). The Zero Carbon delivery team will:

- Draw together existing evidence and data to establish baseline state of the City presented under each of the 12 Goals
- Conduct a full audit of the City to highlight gaps between current plans and what is required to achieve zero carbon
- Define a clear city plan showing outcomes that will need to be met to deliver zero-carbon, how existing activities support and where there are gaps.
- Identify immediate opportunities and crucial first steps

2.6 That Exeter City Council commit resource to be part of the Zero Carbon Delivery Team and, due to the urgency required, co-locate those resources with ECF CIC to ensure that the City Council is leading by example and sharing learning with other ECF CIC Member organisations and the wider ECF CIC Partner Network. (A list of current members of the ECF CIC Partner Network is provided in Appendix 2 to this report)

2.7 That Exeter City Futures CIC be requested to convene "**Zero Carbon Mandate Group**" through a series of summits to validate, challenge and endorse the Roadmap produced by the Zero Carbon working group.

3. Reasons for the recommendation:

3.1 The Council recognises the scale and urgency of the global challenge from climate change and accepts that Cities, like Exeter, have a duty to act quickly, collectively and concertedly to avoid the worst of the predicted outcomes. Cities around the world are setting their sights on becoming carbon neutral, and many, like Exeter, have made commitments to achieve this target. Very few of these Cities have to date set out clear, deliverable plans to achieve those targets. **The attached paper "Towards a Carbon Neutral Exeter" provides an overview of the approaches Cities around the world are following to become carbon neutral.**

3.2 The roadmap to energy independence, published in 2017, outlined the technical feasibility of a zero carbon city and through ECF CIC the City Council is working with Devon County Council, Exeter College, the University of Exeter, Global City Futures and the Royal Devon and Exeter NHS Trust to identify and implement programmes of innovation and investment focussed on outcomes that link closely to the mitigation pathways identified within the SR1.5[1]

[1] Full title: 'Global Warming of 1.5°C - An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.'

and also linking to the UN sustainable development goals of health, clean energy, cities and communities, and sustainable consumption and production (SDGs 3, 7, 11, and 12, respectively).

3.4 Since its incorporation in 2016, ECF CIC have undertaken extensive engagement activities to establish 12 Goals that reflect the priorities of the residents and business within Exeter. These activities form the basis of the approach to delivery of a zero-carbon City.

3.5 It is now critical that Exeter defines a clear delivery roadmap that sets out the scale of the challenge and the likely investment required

4. What are the equality and diversity impacts of this decision?

4.1 Age - The road map/action plan could have relevance to the age equality strand due to different patterns of car ownership, different concerns over accessibility of public transport and different abilities to walk and cycle as an alternative mode of transport. Environmental information needs to be accessible and terminology used needs to encourage and not disincentives people to take action. Further, the need to take forward different energy efficiency measures in the home to alleviate fuel poverty. In relation to children and young people. The road map could have a positive impact of increased opportunities for walking and cycling which could have additional benefits of tackling obesity and encouraging healthy living. Further the very young are most at risk from thermal extremes.

4.2 Disability - The road map/action plan will have relevance to the disability equality strand due to different patterns of car ownership, different concerns over accessibility of public transport. In addition, the need to take forward different energy efficiency measures in the home to alleviate fuel poverty. The design and condition of the built environment has a significant impact on the quality of life of disabled people. Although, the potential impact of reducing emissions will result in benefits for respiratory illnesses, the hotter weather may exacerbate air quality. Flood risk information will need to be publicised and made available in a range of languages and formats. Emergency plans need to address the requirements of disabled people.

4.3 Gender Identity - The road map/action plan could have relevance to the gender identity equality strand due to climate change having different impacts on men and women, with adverse effects disproportionately affecting women. Issues affecting for example different patterns of car ownership, different concerns over accessibility of public transport and different abilities to walk and cycle as an alternative mode of transport. There is a need to ensure energy efficient measures alleviate fuel poverty.

5. What are the resource implications including non-financial resources:

5.1 The role of Exeter City Futures Programme Director has already been created within the City Council, in order to oversee the mobilisation and delivery of ECF CIC. The role has been filled via a secondment from Global City Futures.

5.2 It is recommended that additional resource, already employed within Exeter City Council are mobilised with the specific objectives to work as part of the Zero Carbon Delivery Team and to define the carbon reduction plan for Exeter City Council as well as inputting to the integrated Delivery Roadmap.

5.3 The report entitled “Energy Independence 2025, Roadmap to city-scale Energy Independence” identified finance as a particular barrier. The City Council is unlikely to be in a position to fund on its own a delivery plan for a Carbon Neutral City. The Green Deal that was launched by the Government in 2013 attempted to solve the problem of financing

households to make improvement for solid wall insulation, double glazing etc. was scrapped. Significant private and public finance is likely to be required to make the changes required. This aspect will be explained in preparing the delivery plan to Carbon Neutral Exeter.

6. Section 151 Officer Comments:

There are no additional requests for funding contained within the report. If the services providing the resources requested to support the project require additional funding in the future, then an additional paper to Council will be required.

7. What are the legal aspects?

Please see Monitoring Officer comments below.

8. Monitoring Officer Comments:

The report recommends that the Council commits resource towards achieving its carbon neutral goal. However, the type and cost of that resource has not been set out in this report. Assuming the resource is people related, the Council must comply with its HR policies.

9. Report details:

8.1 The attached paper "Towards a Carbon Neutral Exeter" provides a review of Cities that have set out commitments for carbon reduction and analyses the approaches they are using. This paper provides the context and rationale for the recommendations made in this report.

10. How does the decision contribute to the Council's Corporate Plan?

10.1 Exeter City Council has committed to being a carbon neutral city by 2030. Meeting this target will require decisive implementation of new policies, innovation and investment in areas such as: renewable energy generation associated with battery storage; energy efficiency; electric vehicles, better public transport; active transport; low-energy buildings; reduced food wastage; ecosystem restoration; and more sustainable land-use and urban planning.

10.2 The reduction of congestion within Exeter is a priority objective of the City Council's Corporate Plan. Decreasing carbon-intensive transportation will play an important role in limiting future emissions. Policies that encourage compact, pedestrianised zones, zero emission vehicles and modal shifts toward walking, cycling, public transport, as well as shorter commute distances, will be key to delivering the carbon neutral target. Delivering these policies will also offer additional benefits including reduced air pollution, congestion and road fatalities, and improved health outcomes from more active travel and cleaner air.

10.3 The Corporate Plan proposes that ECC will work towards our ambition of a city where transport is not a barrier to accessing education, jobs, services or social activities, and where sustainable means of travel are cheaper, quicker and more convenient than private car ownership.

11. What risks are there and how can they be reduced?

11.1 Strong engagement and partnership approaches are necessary for sustainable change. Both grass-roots (bottom up) and major infrastructure (top-down) change projects will need to be identified. There is the risk that Members of ECF CIC, partners, the business community and residents of Exeter do not support the work of ECF CIC or the 12 Goal approach to delivering a carbon neutral Exeter and therefore the City does not work together towards the

shared outcome. This will be mitigated through: a comprehensive communication plan to engage stakeholders across the City to consider change projects; a clear Delivery Roadmap that shows how all initiatives across the City work towards the target and identifies gaps; as well as the establishment of the Zero Carbon Mandate Group to validate and challenge the Delivery Roadmap.

11.2 Exeter City Council recognises that a proportion of carbon emissions in the wider travel to work region are due to journeys into Exeter for employment, education or leisure. There is a risk that Exeter City Council is perceived as not supporting emissions reduction in the wider region. This will be mitigated by ensuring robust linkage to the wider regional targets and by working in partnership with neighbouring authorities and with Devon County Council to develop schemes that help to reduce the carbon emissions of transport into and around the City and in doing so to accelerate the reduction of carbon in the wider region.

11.3 Some of the solutions that we will need to deliver may not, at this stage, be known. This may be challenging to communicate. The City should adopt a capability focused model that indicates outcomes rather than solutions. Exeter City Futures CIC offers innovation processes that can be used to identify the challenges and facilitate project partnerships to acquire the capability to deliver the required outcomes.

12. What is the impact of the decision on health and wellbeing; safeguarding children, young people and adults with care and support needs, economy, safety and the environment?

12.1 In delivering the commitment for a carbon neutral Exeter there will be a positive impact on the health and wellbeing of the residents of Exeter, community safety, the environment and the economy. Achieving the target will offer benefits including reduced air pollution, congestion and road fatalities, and improved health outcomes from more active travel and cleaner air.

13. What other options are there, and why have they been dismissed?

13.1 There is the option to do nothing but in the face of increasing evidence about the climate crisis and growing public support for change Exeter City Council has a duty to act quickly, collectively and concertedly to decarbonise and play its role in addressing the global challenge of climate change.

13.2 Exeter has been playing a role in rising to the critical climate change challenge for some time and the City already has a world-class reputation in climate and environmental research. The Met Office and the University of Exeter inform the international response to climate change every day and Exeter's Local Industrial Strategy sets out the ambition to be the global leader for addressing the challenges of climate change and urbanisation.

13.3 Exeter has the opportunity to show leadership among cities through decisive implementation of policies, innovations and investment that shape the way we live and our environmental impact for decades to come.

Deputy Leader / Portfolio Holder for Climate and Culture; and
Programme Director - Exeter City Futures, Dr Liz O'Driscoll

Local Government (Access to Information) Act 1972 (as amended)

Background papers used in compiling this report:-

1. Exeter City Futures CIC, Scrutiny Committee – Resources 27/01/2016, Executive 09/02/2016
2. Exeter City Futures Transforming Exeter through Data, Executive 15/09/2015

3. Energy Independence 2025, Roadmap to city-scale Energy Independence, A report for Exeter City Futures, City Science 2017

Contact for enquiries:
Democratic Services (Committees)
Room 2.3
01392 265115

Appendix 1: The 12 Goals

The 12 Goals of Exeter City Futures were derived through extensive engagement with resident and businesses of Exeter. The work of ECF CIC and the 12 Goals were presented to the Place Scrutiny Committee on 13th September 2018.

Reliable Journeys and Resilient Roads: *Journey times in Exeter will be reliable and the transport network will be resilient to major incidents.*

Arguably, traffic congestion is one of the biggest problems facing Exeter today. A growing population and increases in people living in, visiting and working in the city mean that this will only become a bigger challenge and a potential inhibitor to future economic growth and quality of life. The road network already lacks resilience to major incidents on the motorway and any further development of land for housing and employment will potentially have a negative impact on the City's road network and safety when using it.

Devon County Council, as the Transport Authority, are working with Exeter Council and local transport providers to manage the impact of traffic on the highway network and are implementing a range of congestion management solutions. However, financial constraints are restricting what can be done by any individual authority or organisation alone to mitigate the impact of continuing economic growth.

As Exeter continues to grow and we build the housing numbers required to support this growth it is critical that we find a way to work together to ensure that we can meet our vision of a safer, more connected city that remains to be a great place to live.

Renewable Energy Access for Everyone: *All residents will have access to locally generated renewable sources of energy.*

Energy is essential to our City. It provides heat for our homes, powers our transport and keeps our healthcare system running. In a world where natural resources are limited, establishing an affordable, locally generated green energy supply is vital to maintain our quality of life and to improve Exeter's energy security and resilience.

Meeting this goal will require access to new renewable generation technologies, increased public and private investment, a strong and engaged community who want to make change and a focus on regulatory frameworks and innovative business models that can transform our local energy systems.

Exeter is strongly committed to renewable energy. Over the past decade the City has established a community-owned energy co-op, deployed renewable generation across public sites and delivered large-scale district heating networks in partnership with the private sector. But we can, and must, do more.

Clean Air for Exeter: *Exeter will have clean air through the reduction of pollutants from private cars and fossil fuels.*

Air pollution is associated with a number of adverse health impacts. It is recognised as a contributing factor in the onset of heart disease and cancer. Additionally, air pollution particularly affects the most vulnerable in society: children and older people, and those with heart and lung conditions. There is also often a strong correlation with equality issues,

because areas with poor air quality are also often the less affluent areas. The annual health cost to society of the impacts of particulate matter alone in the UK is estimated to be around £16 billion.

Air quality in Exeter is affected by a small number of hot spots where levels of nitrogen dioxide are above government objectives. These are along the Heavitree corridor (at Livery Dole junction, Fore Street Heavitree, East Wonford Hill and Honiton Road), Alphington Street and the Blackboy Road/Pinhoe Road junction. All these are included within Exeter's Air Quality Management Area, an area where the Council will bring forward and facilitate actions to improve air quality. In the majority of the city, outside these areas, pollution levels are below the government objectives.

Exeter is exploring ways that it can improve air quality in the city. We have a legal responsibility, but also a political desire to do more.

Half of all journeys walked or cycled: *50% of Exeter originating trips to be made on foot or bicycle.*

Exeter has set its sights on reaching 50% of all journeys within the City being made on foot and cycle. This means that the way we travel around our city, to access employment, education or services, needs to change significantly from how it is today.

Overall, Exeter is a healthy place to live. But some areas in the city have poorer health outcomes than others. Similarly, although prosperity overall in the city has grown in recent years, the health inequalities gap between the most and least well off areas has increased.

We know that active and healthy lifestyles bring wider benefits to individuals and communities, and can help tackle strategic challenges. In particular, more people leading active lives could reduce health inequality, tackle congestion, improve community connectivity and reduce social isolation.

We aspire to create a high-quality and accessible built environment and green spaces across Exeter that encourages the use of active transport. This will need to be supported by the right infrastructure (like changing and storage facilities) and a comprehensive network of safe routes, to ensure that most everyday journeys are made by walking and cycling.

Affordable Healthy Homes for Everyone: All residents will be able to live in an affordable home which is energy efficient and healthy; fuel poverty will be reduced.

Rising energy prices, energy inefficient housing and low incomes have resulted in high levels of fuel poverty across the UK. The adverse health effects of living in a cold, poorly ventilated home are well-established, ranging from cardiovascular and respiratory problems to depression. There is also evidence of wider social impacts, such as social isolation, with some people having to make choices between heating their home or buying the food they need.

An energy efficient home reduces wasted energy usage and its demand for non-renewable energy resources. It may also offer healthier and cleaner living conditions through better ventilation and maintenance of moderate temperature. A financial saving may also occur in an energy efficient home. There are a range of energy saving measures that can be applied to existing homes and also new standards emerging for the building of new homes.

We are seeking ways to improve the efficiency of new and existing homes while ensuring that we don't make them less affordable for those who want to live in them.

Reducing the Dominance of Cars: *Cleaner, more efficient public transport and reduced dominance of cars in the city centre making more attractive public places.*

Exeter's vision is to be the most active and accessible city in England. We will work with our partners to make Exeter a city where shared and active travel is promoted and where transport is not a barrier to accessing education, jobs, services or social activities

We want a City where sustainable means of travel will be cheaper, quicker and more convenient than private car ownership. Where land currently dominated by driving and parking will be freed up for social and economic activities and where air will be clean and healthy.

Delivering this Goal will create a city where everyone has access to the places and services which enable them to meet their needs and lead fulfilling lives

Reduced Energy Consumption: *The overall energy consumption of residents and businesses in Exeter will be reduced by 30%*

Greater Exeter consumes 10TWh of energy every year – enough to make 368 trips to the moon or to drive around the Earth 1.5 million times. This use is set to grow. Existing energy consumption patterns already cost our residents and businesses over £900m each year; a significant cost to many families and a particular burden to those in fuel poverty.

Exeter City Council have already reduced energy consumption by 37% and are on track to deliver an energy-neutral council by 2022. However, the wider city region has a tremendous opportunity to go so much further. There needs to be more progress made regarding integrating renewable energy into our buildings, transport systems and local industry.

Working towards this goal is especially important as it interlinks with several of the other goals for Exeter. Focusing on renewable energy and increased energy efficiency is crucial to creating more sustainable and inclusive communities and resilience to environmental issues.

Smart Energy Measurement for Everyone: *Residents & businesses will have access to the right tools to measure and understand energy use in order to reduce consumption & increase energy efficiency*

The "smart energy home" of the near future is likely to include smart meters, vehicle-to-grid technology, home control, onsite generation and energy trading systems.

Having access to high-quality energy consumption data can give people greater understanding and control over their personal energy use. The latest in data analytics and monitoring technology can actively empower the customer to save money through improving their understanding of energy usage. However, it is critical to consider how this data can support disadvantaged groups who may be less able to understand or action the information provided by "smart meters" and complimentary energy monitoring solutions; how do we ensure that the benefits of the "smart energy home" can be enjoyed by all. More sophisticated monitoring solutions can help increase the energy efficiency and savings of homes and businesses through personalised recommendations, even continuously health-checking their current energy tariff and recommending cheaper alternatives.

Achieving this goal will see households and businesses across our City using data and analytics to save money on their total energy bills, to increase their understanding of and control over energy use and, in so doing, contributing towards a more sustainable Exeter.

Self-financing City: *Exeter will have the finance & capability to develop in a way that delivers affordable homes, reduces relative congestion & embraces the energy independence values of the city.*

Transformation and innovation in a city development means different things to different people. There are a wide variety of projects and ideas with varying outcomes that lead to our urbanisation goals. However, stakeholders city-wide all agree that the failure of cities to truly deliver lasting transformation and develop long-term solutions to its urbanisation challenges lies in the lack of adequate funding.

Transformation projects often attract initial grant funding for technology development but then suffer from poor business models and a lack of commercial, sustainable profits to ensure consolidation and expansion. These initiatives often fail, the answer to this problem lying in a robust sustainable financing model.

Cities need to view urban transformation, development, and innovation as a single self-supporting programme. It is not enough to design energy-positive, car-free urban developments from an architectural or technology perspective. The financing should be holistic too, with traditional property development directly funding innovative mobility initiatives and renewable start up programmes. The goal of a self-financing city is to implement a commercial city financing programme, with asset development-backed innovation projects that does not rely on grants.

Waste as a Resource: *Waste will be seen as a resource and recycled wherever possible; waste collection and deliveries will be made via operationally and energy efficient means.*

Waste is not just an environmental problem for cities around the world, contributing to air, land and water pollution, but low recycling rates are an economic loss as well. In Exeter the recycling rate was 30% at the end of 2017, below the national average of 45% in 2016. By recycling more, and optimising waste collection and deliveries, we can both reduce pollution in the City and generate new income that will help us to become more financially sustainable.

Achieving the goal of Exeter City Futures for waste to be seen as a resource will involve increasing the awareness of residents and businesses about waste disposal and management. It will also require the City to assess and improve the logistics of the waste collection vehicles in order to minimise the time they spend in the city centre.

The environmental benefits of achieving this goal are not just about landfill or plastic in the ocean. By optimising waste collection and delivery we can reduce the number of heavy-load vehicles on our roads, alleviating congestion, reducing fuel consumption, and improving air quality. By increasing recycling more waste can be resold and repurposed, feeding into our economy. Although the circular economy is at the heart of this goal it will also help us to solve transportation and energy challenges in Exeter as well.

Buildings that Make More than They Take: *New building developments will generate more energy than they consume; waste energy will be captured for reuse.*

New development is expected to add 29,600 dwellings to the region’s stock by 2025 which could see domestic energy demand grow by up to 384 GWh (13%). A shift to the development of buildings that produce more energy than they consume is necessary if we are to tackle the expected increase in energy demand from this new development.

Positive energy buildings are technically feasible and with increased uptake are likely to become cheaper and more accessible the more. However, in order to do this we need to see

transformation in construction methods, energy generation technologies and City energy markets. There is significant opportunity for Cities and governments to develop regulatory policies that drive uptake by increasing mandatory energy performance with incentives and voluntary measures.

Working towards this goal is especially important as it interlinks with several of the other goals for Exeter. New developments that positively contribute to city energy use will mean that less onshore generation development and retrofitting of older building stock will be required.

This page is intentionally left blank

Appendix 2: The ECF CIC Partner Network

We are Cosmic
Sarah West Recruitment Consultants
McQueenie Mulholland
100% Open
Exeter Cycling Campaign
The Uncorrupted Copywriter
SSE Enterprise
OTB Eveling
GreenRide Sharing
Low Carbon
Task & TIme
Like Minds
AWP Partnership
Escargo
Grenadier Estates
Wiseman Productions
Aardvark Environment Matters
Pavey Group
RideOn
Michelmores
Oxygen House
Hawksmoor Investment
SG Modular
Exeter Chiefs
South West Comms
Crowdcube
Royal Devon and Exeter NHS
Goodridge
Lightfoot
City Science
Francis Clark
BiG
Exeter City FC
Grow Exeter
Wifi Spark
JLL
Stephen Scown
Midas
Exeter College
Devon Doctors
Ravenslade Project & Cost Management
V2G
Map your Future
Bunyip Craft
Wilkinson Grant & Co
Optix Solutions
Burrington Estates
Chalk & Ward

Simply Connect
Ashfords
Energy Performance Direct
Mark Cotton Consultancy
Exto Digital Marketing
South West Business Connections
Hamson Barron Smith
Ashwoods
The Bike Shed
The Belt Makers
Liftshare
Fast Track to Growth
Astley Media
Tech South West
Aptus UK
Geotechnics

A Carbon Neutral Exeter

Executive Summary

On 15th March 2019 Exeter City Council, declared a commitment to make Exeter a Carbon-Neutral City by 2030. This ambition is aligned to the vision for the City and has potential to make a vital contribution to our planet and all its people.

Exeter has been playing a role in rising to the critical climate change challenge for some time and the City already has a world-class reputation in climate and environmental research. Over the past decade the City Council have pioneered Passivhaus standards in the UK, deployed renewable generation across their public sites and delivered large-scale district heating networks.

In 2016, Exeter City Council and Global City Futures established Exeter City Futures Community Interest Company (ECF CIC), as an organisation to support the creation of a vibrant and sustainable Exeter. Joined in 2018 by Devon County Council, Exeter College, the University of Exeter, Global City Futures and the Royal Devon and Exeter NHS Trust, ECF CIC provides the supporting environment and governance that can deliver a carbon neutral City.

Exeter has the opportunity to show leadership among cities through decisive implementation of policies, innovations and investment that shape the way we live and our environmental impact for decades to come. This paper provides an overview of the the approaches Cities around the world are following to become carbon neutral and, in this context, makes recommendation that the following actions are taken:

1. The Exeter target is framed in a way that links to wider regional targets. This shows Exeter's intention to decrease its emissions without increasing emissions in the wider region.

2. Exeter City Council commit to their operations becoming carbon neutral ahead of the 2030 date and mobilise resource to develop internal plans to deliver the target.

3. A **"Zero Carbon Delivery Team"** is convened by ECF CIC to establish a city plan for delivery that builds on the Energy Independence Roadmap produced by ECF CIC and uses the 12 Goals as the basis of the approach.
    a. Draw together existing evidence and data to establish baseline state of the City presented under each of the 12 Goals
    b. Conduct a full audit of the City to highlight gaps between current plans and what is required to achieve zero carbon

c. Define a clear city plan showing outcomes that will need to be met to deliver zero-carbon, how existing activities support and where there are gaps.
d. Identify immediate opportunities and crucial first steps

4. Exeter City Council commit resource to be part of the Zero Carbon Delivery Team and, due to the urgency required, co-locate those resources with ECF CIC to ensure that the City Council is leading by example and sharing learning with other ECF CIC Member organisations and the wider ECF CIC Partner Network.

5. A "**Zero Carbon Mandate Group**" is convened by ECF CIC through a series of summits to validate, challenge and endorse the Roadmap produced by the Zero Carbon working group. The terms of reference would need to be defined but the Group should consist of:
    a. Exeter's global expertise in climate science from the MET Office and University Of Exeter
    b. Key Politicians (Leader and Portfolio Holder for Climate and Culture).
    c. Other key stakeholders from the wider community e.g. youth, faith, and activist groups

6. ECF CIC request assistance from the University of Exeter to establish an academic team that can
    a. Agree a robust definition of what is included in the measurement of Exeter's carbon emissions and how this accounts for the carbon emissions created in the wider region by commuters.
    b. Define the measurement framework for the carbon-neutral journey (real-time or periodic)
    c. Define the optimal way for Exeter to consider its carbon-reduction strategies and the impact on wider regional emissions
    d. Analyse potential solutions to consider carbon savings, cost and social impact.

Introduction

The Special Report on Global Warming of 1.5°C (SR1.5)[1] identifies that Cities have a duty to act quickly, collectively and concertedly to avoid the worst of the predicted outcomes of climate change. Recognising this responsibility, Exeter City Council has declared a commitment to make Exeter a Carbon-Neutral City by 2030. This ambition is aligned to the vision for the City and has potential to make a vital contribution to our planet and all its people.

Exeter has been playing a role in rising to the critical climate change challenge for some time and the City already has a world-class reputation in climate and environmental research. The Met Office and the University of Exeter inform the international response to climate change every day and Exeter's Local Industrial Strategy sets out the ambition to be the global leader for addressing the challenges of climate change and urbanisation.

Exeter City Council is strongly committed to renewable energy and to playing a part in pushing the boundaries of what local authorities can do to deliver a low carbon future. Over the past decade the Council have pioneered Passivhaus standards in the UK, deployed renewable generation across their public sites and delivered large-scale district heating networks.

The choices we now make about the growth of Exeter are incredibly important and will shape the way we live and our environmental impact for decades to come. The SR1.5 outlines the need for Cities to make significant changes to their urban planning in order to be on a pathway to limiting the global temperature rise to 1.5 degrees. Its Summary Report for Urban Policy Makers (December 2018) states:

"Urban planning that decreases the long-term reliance on carbon-intensive transportation (e.g. compact, pedestrianised cities and towns) will play an important role in limiting future emissions. Such planning, coupled with policies that encourage zero emission vehicles and modal shifts toward walking, cycling, public transport, as well as shorter commute distances, will be key to decarbonisation. Delivering these policies will offer additional benefits to Cities including reduced air pollution, congestion and road fatalities, and improved health outcomes from more active travel and cleaner air."

Exeter has the opportunity to show leadership among cities through decisive implementation of new policies and through embracing innovations in: renewable energy generation associated with battery storage; energy efficiency; efficient appliances; electric vehicles, better public transport and local shared mobility; active transport; low-energy buildings; reduced food wastage; ecosystem restoration; and more sustainable land-use and urban planning.

[1] Full title: 'Global Warming of 1.5°C - An IPCC special report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty.'

Defining “Carbon Neutral”

Cities around the world are setting their sights on becoming carbon neutral, and many, like Exeter, have made commitments to achieve this target. There is no standard or absolute definition of a “carbon-neutral” City but the term is generally used to define a ***significant and aggressive reduction over current emissions***. Furthermore, there is no clear indication as to whether targets should be met by 2050, 2040 or 2030 with different cities selecting different targets to be achieved by different dates.

In order to limit global warming at any level, the requirement is to reduce global carbon dioxide (CO2) emissions to zero. The SR1.5 report states that if global CO2 emissions reach zero in thirty years (2048), there is a one-in-two chance of limiting warming to 1.5°C. To increase this probability to a two-in-three chance, CO2 emissions must be reduced to zero in twenty years (2038).

The Carbon Neutral Cities Alliance (CNCA) is a collaboration of leading global cities working to cut greenhouse gas emissions by 80-100% by 2050 or sooner. The CNCA Framework for Long-term Deep Carbon Reduction Planning uses a measurement of carbon emissions produced (both initial assessment and periodic monitoring) and establishes an overall reduction target in emissions against a baseline level; for example, an 80 percent reduction by 2050 from 1990 levels, with an interim goal of a 40 percent reduction by 2030.

The framework also offers a second way of expressing an absolute emissions reduction goal as a per-person goal, something that allows Cities to take into account population growth or loss over the years.

ICLEI[2] define a carbon neutral city as one that *“after measuring their carbon emissions, they reduce those emissions as much as is cost effectively possible, and use equivalent offsets to balance the residual emissions and achieve a net zero carbon footprint.”*

Most Cities recognised as being on a sustainability journey have adopted the goal to have reduced their carbon emissions by between 80%-100% by 2050. There are also a range of commitments other than “carbon-neutral” and these include being “Fossil Free” and “100% green energy”.

There is significant public interest is making these commitments and delivering emissions reduction as early as possible. The Green Party promotes a policy of the UK emissions being zero by 2030 and Extinction Rebellion and the youth group Fridays for Future are campaigning for the declaration of carbon-neutrality by 2025 in order to attempt to halt further climate warming.

[2] ICLEI – Local Governments for Sustainability is a global network of more than 1,750 local and regional governments committed to sustainable urban development

Recently a number of Cities, like Exeter, have publicly committed to being carbon-neutral by 2030 or earlier. A full list of UK Cities and regions that have commited to be carbon-neutral by 2030 can be found in Annex A of this document. The sections below provide a summary of the commitments and plans of a range of leading Cities:

Adelaide

The City of Adelaide in Southern Australian adopted its Carbon Neutral Strategy in 2015 with a target to have 100% reduction over 2006 emissions by 2025. The City of Adelaide council aims to have zero net carbon emissions from its own operations by 2020.

Like Exeter, Adelaide has created strong partnerships with its community, including organisations and individuals, believing these to be critical to achieving the carbon neutral goal. Through these partnerships they are seeking to work together to reduce the city's emissions across 4 thematic areas:

- energy efficient buildings, infrastructure and streetscapes
- zero emissions transport
- towards 100% renewable energy
- reducing emissions from waste and water.

Adelaide are prioritising measures that reduce emission and planning to use carbon offsets for remaining emissions that can't be avoided. For more information see Carbon Neutral Adelaide.

Bristol

Like Exeter, Bristol has been working at the forefront of sustainability initiatives for many years. In 2015 Bristol was the European Green Capital and at this time set out a framework to deliver a CO2 reduction target of 80% by 2050 with key milestones of a 50% reduction by 2025 and 60% by 2035. In this document, Bristol City Council also committed to targets for its own corporate energy efficiency.

In November 2018 Bristol City Council declared a "climate emergency", with the council unanimously backing a commitment to be carbon neutral by 2030 in an effort to avoid catastrophic climate breakdown. Bristol City Council meeting minutes indicate that following the declaration to accelerate the targets the City Mayor has asked the Bristol Green Capital Partnership to define a route-map to the city's 2030 ambition including the costs involved, and the responsibilities of different organisations. This report is stated to be released within 6 months (April 2019) but has not yet been issued.

The Bristol Green Capital Partnership has also been involved in the development of the Bristol One City Plan to ensure that environmental sustainability features prominently. A number of City

Boards are proposed to support the delivery of the One City Plan including a new Environmental Sustainability Board to be facilitated by Bristol Green Capital Partnership. This new Board has the remit to will help to deliver the environmental elements of the Plan including the target to become a carbon neutral city.

On 11 January 2019 the Bristol Green Party published its own report, which details possible actions that could lead the city towards its carbon neutral goal. Titled 'Change Starts Now: Towards carbon neutral Bristol by 2030', the report focuses on five key areas where carbon savings could be made:

- energy generation and smart energy;
- house-building, retrofitting and efficiency;
- transport;
- business and industry;
- Food, waste and land use.

Copenhagen

Copenhagen aims to be the first carbon neutral capital in 2025. The population of Copenhagen is expected to grow by 20% in the next decade and Copenhagen want to show that it is possible to combine growth, development and increased quality of life with the reduction of CO2 emissions. The City Council adopted their CPH 2025 climate Plan in 2012. The plan is based on four pillars:

- Energy Consumption
- Energy Production
- Mobility
- City Administration Initiatives.

Copenhagen's City Council have calculated that whilst energy consumption only accounts for 7 pct. of the total CO2 reduction, energy savings are the cheapest way to cut emissions. Partnerships with private building owners and businesses have been implemented in order reach the saving goals.

The production of electricity and heat for Copenhageners is stated as the biggest source of CO2 emissions and their plan focuses in the replacement of if coal, oil and natural gas with renewable energy. Efforts in this theme of the plan are expected to account for 80 pct. of the total reduction in 2025. Copenhagen are set to open a new biomass fueled combined heat and power plant in 2019 as well as commissioning several more wind turbines.

Copenhagen are recognised globally for their efficient mobility systems and high level of active transport, however their plan states that most of the CO2 emissions from transport come from

road traffic. By 2025 the aim is for at least 75 pct. of all trips to be done by foot, by bike or by public transport. One of their biggest stated changes is large to make a much faster change to vehicles driven by electricity, hydrogen and biogas.

The Copenhagen City Council are aiming to lead by example by cutting energy use and running vehicles powered by alternative fuels. This, they believe enhances the City of Copenhagen's credibility.

Nottingham

In January 2019, Nottingham Labour committed to making Nottingham a carbon free city by 2028, two years ahead of the target of many other cities which have taken similar pledges.

Nottingham state that they have met their 2020 energy strategy emissions target early, reducing emissions by 39% for the city and 43% per person. To date they have implemented a number of green initiatives that have seen them recognised as a leader in the UK:

- £15 million investment in one of the UK's largest electric bus fleets
- Developing and expanding the electric tram network
- Significant investment in cycle corridors, facilities, bike hubs and a cycle hire scheme
- Introduction of the Workplace Parking Levy – tackling congestion and containing traffic growth, while generating funds to invest in public transport
- Installing solar panels on 4500 domestic properties across the city.

The only public document relating to carbon reduction in Nottingham is the Carbon Management Plan issued in 2007. This states a 2050 target. There is no additional plan update published and its possible that Nottingham represents a strong example of a City that is achieving early rather that accelerating.

Other Cities with later targets

There are a significant number of other leading Cities who have made substantial commitments but at a later date than 2030. Examples are provided here because they offer interesting insights about how the Cities have approached the targets and framed their plans.

Stockholm

The vision for Stockholm is to fossil-fuel free by 2040. Stockholm is aiming to reduce human impact on the global climate by making a successful transition from a society built on fossil fuels to one based on renewables. Demands for renewable energy, improved energy efficiency and other green solutions are driving the development of a new rapidly growing sector that is providing economic benefits.

In 2015 fossil fuels accounted for approximately 30 percent of total energy use in Stockholm, equating to emissions of 2.7 tonnes of CO2e per person. The toughest challenge is recognised to be in is the transport sector. Electrification and a transport efficient city development are key areas. In 2040 residual fossil fuel is expected to be found in the aviation and shipping industries. To compensate for residues, carbon sinks are to be developed to reduce the city's climate impact by absorbing atmospheric carbon dioxide.

Stockholms strategy proposes short term measures over which the municipal authorities and companies have the greatest power to act. The measures correspond to a reduction of 533,000 tonnes of CO2e between 2013 and 2019 and include actions such as bioenergy heat-and-power plants, promoting biking and public transport in the traffic planning, incentives for electric cars and renewable energy production such as biogas and solar power.

San Francisco

San Francisco has already reduced its emissions 30 percent below 1990 levels, while the population has grown 20 percent and the local economy 110 percent. San Francisco has set out to be Net Zero Emissions by 2050. The City's Climate Action Framework sets out the following targets:

- Zero waste to landfill
- 80% of trips made by sustainable modes (public transit, walking, biking)
- 100% renewable energy to electrify the built environment, including the movement of people and goods
- Protecting urban green spaces and growing the urban forest to enhance biodiversity and sequester carbon

San Francisco recognizes that achievement of its goals requires inclusive and equitable participation of community in climate and sustainability decisions, an investment in capacity building activities such as providing residents tools, education, and job opportunities, and engagement of people throughout the city in programs, policies and initiatives.

Barcelona

Whilst Barcelona is commonly considered to be one of the leading "smart" cities its sustainability goals are not as aggressive as some of its peers.

Barcelona has a Climate Plan plan co-produced by City organisations to reduce their greenhouse gas emissions by 45% by 2030. This they believe puts them on course to prepare the city to meet the Paris agreement.

The strength of the Barcelona plan is the strong level of engagement they have from across the City. The Barcelona Mayor states:

"The future of the fight against climate change is being played out in our streets and squares. We are where most of the population lives, the people most responsible for greenhouse gas emissions and the main focus of innovation. If we want things to change, we have to start by changing ourselves. And that will only be possible if we all take joint responsibility: citizens, companies, associations and authorities."

Summarising the City Approaches

Whilst all the Cities reviewed show different approaches to delivering carbon-neutral outcomes, there are some commonalities that are observed.

1. **Format of Target:** Most Cities have, in some form, stated a clear undertaking related to a % reduction in total carbon emissions. Leading organisations such as CNCA require that Cities adopt a definition of carbon-neutral in the format:

    - Long-term Goal: **[80-100]** percent reduction by **[2030]** based on **[date]** level
    - Interim target: **[zz]** percent reduction by **[date]**

2. **Importance of Engagement and Partnering:** Strong engagement and partnership approaches are evident across all the Cities under review in this document. Many Cities propose co-creation approaches and both grass-roots (bottom up) and major infrastructure (top-down) change projects. The philosophy of engaging everyone across the City is widely observed as necessary for sustainable change.

3. **Thematic Approach:** Across many, if not all Cities, the routes to deliver the carbon-neutral ambition are set out within a thematic framework. The priority focus and themes for each City are strongly reflective of local resident and business desire. Themes of energy and mobility are common across all Cities and the inclusion of themes relating to improvement of City policies and raising of community skills are also evident in many.

Creating a Carbon-Neutral Exeter

Exeter's carbon reduction target is significantly more aggressive than the targets declared by the wider region. Devon County Council have made a commitment to be zero-carbon but by the later date of 2050.

The City recognises that a proportion of carbon emissions in the wider travel to work region are due to journeys into Exeter for employment, education or leisure. Additionally, much of the new housing development required to support the economic growth (and increased employment opportunities) in Exeter will be located within the neighbouring regional authorities.

In defining the target for Exeter it is critical to ensure a robust linkage to the wider regional targets. Whilst the first step is to enhance Exeter's policies and development plans to ensure that the City itself becomes carbon-neutral, there is a vital role that Exeter must play in driving emissions reduction across the wider region.

It is critical to work in partnership with with neighbouring authorities and with Devon County Council to develop schemes that help to reduce the carbon emissions of transport into and around the City and in doing so to accelerate the reduction of carbon in the wider region.

Defining the Approach

Exeter has already taken steps to engage the City residents and organisations to create the supporting environment and governance for delivering the commitment to be carbon-neutral by 2030. Exeter City Futures Community Interest Company (ECF CIC), brings together the City Council, Devon County Council, Exeter College, the University of Exeter, Global City Futures and the Royal Devon and Exeter NHS Trust to identify and implement programmes of innovation and investment focussed on outcomes that link closely to the mitigation pathways identified within the SR1.5 and also linking to the UN sustainable development goals of health, clean energy, cities and communities, and sustainable consumption and production (SDGs 3, 7, 11, and 12, respectively).

Since its incorporation in 2016, ECF CIC has produced the Energy Independence Roadmap that shows technical feasibility of a zero carbon city and have undertaken extensive engagement activities to establish 12 Goals that reflect the priorities of the residents and business within Exeter.

These activities form the basis of the approach to delivery of a zero-carbon City. The 12 goals can be grouped into 4 themes that align strongly with the themes of many other leading Cities.

- **Energy**: renewable energy generation, energy reduction, energy efficient buildings, affordable energy efficient residential
- **Mobility**: reduced dominance of cars, increased active transport, reliable journey times
- **Sustainability**: improved air quality and health outcomes, reduced waste
- **Capability**: increased entrepreneurial output, enhanced analytical skills, innovative financial models

The inclusion of the focus on affordable energy efficient homes, skills for the future of work and journey time reliability also link to SDGs of no poverty, decent work and growth and reduced inequality (SDGs 1, 8 and 10 respectively).

ECF CIC offers many of the features identified in the analysis of other leading Cities on the same journey. The strong collaborative governance structure coupled with the support of a growing business Partner Network provides Exeter with an effective "City Office" that is well placed to lead the delivery of a carbon-neutral Exeter.

Actions / Recommendations

Setting a Clear Target: The political commitment to the 2030 target was made by Exeter City Council and not by the wider regional authorities. The effects of the City's more aggressive actions will bring benefit to the wider regional target and best practice can be shared in order to try and deliver wider targets early.

The target must be defined in a way that enables Exeter to have influence and authority over measures to deliver the target. Areas outside of Exeter's control will need to be clearly understood and the risks considered.

It is recommended that:

- The Exeter target is framed in a way that links to wider regional targets. This shows Exeter's intention to decrease its emissions without increasing emissions in the wider region.

Setting Organisational Targets: Many Cities have set clear interim targets which allow analysis of progress and drive engagement by demonstrating success. Several of these targets are related to the City leadership organisations themselves achieving carbon-neutral operations ahead of the overall zero target date. Exeter City Council has already delivered a significant amount of work that shows how Councils can create a low carbon future and is developing strategies for low carbon heating and energy efficiency in Council owned properties and to

reduce energy use in its operations. In the Energy Independence Roadmap, Exeter City Council states that it is on target to be an energy-neutral council by 2022.

It is recommended that:

- Exeter City Council commit to their operations becoming carbon neutral ahead of the 2030 date and mobilise resource to develop internal plans to deliver the target.

Creating a Delivery Roadmap: Exeter has already delivered a significant amount of work in terms of its carbon-reduction. Whilst we are not starting from nothing, we need to capture the current state of the City in order to be able to fully assess the scale of the ambition and the innovations and investments that will be required. The baseline data will also provide a clear and evidenced case for change. Having a clear baseline also enables us to provide regular reporting to the City on our progress which is vital to ensure we are communicating the benefits of the work to the residents and businesses.

Exeter needs to draw on its extensive City expertise to develop a detailed Delivery Roadmap (referred to by some Cities as a "Framework") to deliver the carbon-neutral target based on the Goals/Themes defined by Exeter City Futures. The Roadmap will need to set out the scale of the challenge and the likely investment required.

The Roadmap should include a range of visible outcomes, along with target dates, that the City should be delivering in order to meet its carbon-neutral ambitions. Some of the solutions that we will need to deliver may not, at this stage, be known and in these cases the City should adopt a capability focused model that indicates outcomes rather than solutions. Exeter City Futures offers innovation processes that can be used to acquire the capability and as a City Office will work to facilitate project partnerships to deliver the outcomes.

It is recommended that:

- A **"Zero Carbon Delivery Team"** is convened by Exeter City Futures to establish a city roadmap for delivery that builds on the Energy Independence Roadmap produced by Exeter City Futures and uses the 12 Goals as the basis of the approach.
    - Draw together existing evidence and data to establish baseline state of the City presented under each of the 12 Goals
    - Conduct a full audit of the City to highlight gaps between current plans and what is required to achieve zero carbon
    - Define a clear city plan showing outcomes that will need to be met to deliver zero-carbon, how existing activities support and where there are gaps.
    - Identify immediate opportunities and crucial first steps

- Exeter City Council commit resource to be part of the Zero Carbon Delivery Team and, due to the urgency required, co-locate those resources with ECF CIC to ensure that the City Council is leading by example and sharing learning with other ECF CIC Member organisations and the wider ECF CIC Partner Network.

Measuring Progress: The importance of delivering the carbon neutral ambition cannot be underestimated. The choices we now make about the growth of Exeter will shape the way we live and our environmental impact for decades to come. The City has a world-class reputation in climate and environmental research and the expertise we have available to us should be used to validate the plan and measure progress.

<u>It is recommended that</u>

- A "**Zero Carbon Mandate Group**" is convened by Exeter City Futures through a series of summits to validate, challenge and endorse the Roadmap produced by the Zero Carbon working group. The terms of reference would need to be defined but the Group should consist of:
    - Exeter's global expertise in climate science from the MET Office and University Of Exeter
    - Key Politicians (Leader and Portfolio Holder for Climate and Culture).
    - Other key stakeholders from the wider community e.g. youth, faith, and activist groups

- Exeter City Futures request assistance from the University of Exeter to establish an academic team that can
    - Agree a robust definition of what is included in the measurement of Exeter's carbon emissions and how this accounts for the carbon emissions created in the wider region by commuters.
    - Define the measurement framework for the carbon-neutral journey (real-time or periodic)
    - Define the optimal way for Exeter to consider its carbon-reduction strategies and the impact on wider regional emissions
    - Analyse potential solutions to consider carbon savings, cost and social impact.

Annex A: List of Cities and Regions Committed to be Carbon Neutral by 2030

(Principal) UK councils which have passed motions relating to a climate emergency and/or targets:

- Bath and North East Somerset
- Bedford Borough Council - aspiring for carbon neutral by 2030
- Bradford Metropolitan District Council - (90% reduction in carbon emissions compared to 2005 levels by 2030)
- Brighton Hove City Council - (carbon neutral by 2030)
- Bristol City Council - (carbon neutral by 2030)
- Calderdale (no fixed target date)
- Cambridge City Council (no new target date, campaign continues to press for a more ambitious target)
- Carlisle (net zero carbon by 2030)
- Carmarthenshire (zero carbon by 2030)
- Cheltenham (carbon neutral by 2030)
- Cornwall County Council (carbon neutral by 2030)
- Devon County Council (but 2030 target was voted down to shouts of 'shame')
- Durham County Council (zero carbon by 2050 - amendment for a 2030 target date defeated)
- Exeter City Council Aims to be a Carbon-neutral City by 2030
- Forest of Dean District Council (carbon neutral by 2030)
- Greater London Authority (call for the Mayor to declare climate emergency)
- Gwynedd County Council (carbon neutral eventually)
- Hastings Borough
- Herefordshire - 'aspiration to be carbon neutral by 2030' (motion p79) - but criticised for their determination to press ahead with new bypass road
- Hull - climate neutral by 2030 (doesn't include the words 'declare a climate emergency')
- Kirklees Metropolitan District Council (carbon neutral in line with IPCC carbon targets)
- Lancaster City Council (carbon neutral by 2030)
- Leicester City Council (carbon neutral by 2025-2030)
- Lewes D.C.
- London Borough of Haringey - carbon neutral by 2030
- London Borough of Lambeth (carbon neutral by 2030)
- London Borough of Lewisham (carbon neutral by 2030)
- London Borough of Newham - carbon neutral by 2030
- London Borough of Southwark - carbon neutral by 2030

- Manchester City Council (carbon neutral by 2038)
- Mendip District Council (carbon neutral by 2030)
- Milton Keynes - (carbon neutral by 2030)
- Newcastle - carbon neutral by 2030
- North Somerset Council (net zero carbon by 2030)
- Norwich (motion amended to 'acknowledge' climate emergency, no target date set)
- Nottingham City Council (carbon neutral by 2028)
- Oxford City Council (carbon neutrality target TBC)
- Oxfordshire County Council - carbon neutral by 2030
- Plymouth (carbon neutral by 2030)
- Portsmouth - carbon neutral by 2030
- Powys County Council (carbon neutral eventually)
- Reading Borough Council (to pursue zero carbon by 2030, but notes 'this date can only be achieved with substantial policy changes from national government'. - final motion on last 2 pages of meeting agenda)
- Redcar and Cleveland Borough Council - aiming for zero carbon by 2030 with the condition that carbon capture and storage will be used due to the heavy industry in the area.
- Reigate and Banstead B.C.
- Scarborough Borough Council (carbon neutral by 2030)
- Sheffield City Council (carbon neutral asap)
- Somerset
- Somerset West and Taunton - carbon neutral by 2030
- South Cambridgeshire (target date of 2050)
- South Lakeland District Council - no fixed date
- Suffolk
- Sunderland City Council - carbon neutral by 2030, subject to public consultation
- Stroud District Council (carbon neutral by 2030)
- Trafford Council - (carbon neutrality target TBC)
- Wiltshire County Council - carbon neutral by 2030
- City of York - carbon neutral by 2030

Parish and town councils which have passed motions relating to a climate emergency and/or targets:

- Alnwick Town Council - (carbon neutral by 2030)
- Bideford Town Council - carbon neutral by 2030
- Dartington Parish Council
- Frome Town Council - (carbon neutral by 2030)
- Glastonbury Town Council - (carbon neutral by 2030)
- Hebden Royd Town Council - carbon neutral as soon as possible
- Holme Valley Parish Council - carbon neutral by 2030

- Ide Parish Council
- Kendall Town Council - carbon neutral by 2030
- Ladock Parish Council - (carbon neutral by 2030)
- Langport Town Council - (carbon neutral by 2030)
- Machynlleth Town Council - (carbon neutral asap)
- Oswestry Town Council - (carbon neutral by 2030)
- Stithians Parish Council - (carbon neutral by 2030)
- Totnes Town Council - (carbon neutral by 2030)
- Trowbridge Town Council
- Tywyn Town Council - (carbon neutral as soon as possible)