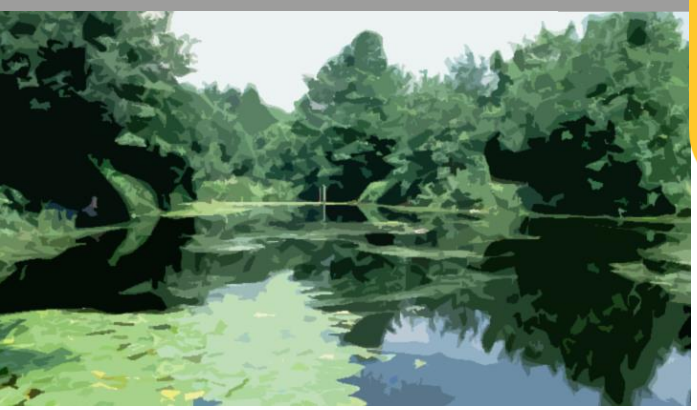
Bury Council




Bury Local Plan

Topic Paper 1:
Climate change and carbon reduction

March 2025





Contents

1. Introduction

1.1. This Topic Paper is one of a series that has been prepared as part of the process of evidence gathering to support Bury's emerging Local Plan. It sits alongside a range of other Topic Papers covering the following:

- Housing
- Economy
- Centres
- Tourism and culture
- Communities
- Transport
- Built environment and design
- Green infrastructure
- Green Belt
- Water and flood risk
- Air quality, pollution and hazards

1.2 The principal aim of the Topic Paper is to set out current key policies, plans and strategies relating to this topic area that forms the framework for the development of the Local Plan and to present a profile of the Borough that will highlight key issues, problems and challenges that the Local Plan should seek to address and which have helped to shape and influence the direction and focus of the Local Plan's policies and designations.

2. Background

2.1. In addition to supporting the delivery of appropriately sited green energy, effective spatial planning is an important part of a successful response to climate change as it can influence the emission of greenhouse gases. In doing so, local planning authorities should ensure that protecting the local environment is properly considered alongside the broader issues of protecting the global environment. Planning can also help increase resilience to climate change impact through the location, mix and design of development.

2.2. Addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin both plan-making and decision-making. To be found sound, Local Plans will need to reflect this principle and enable the delivery of sustainable development in

accordance with the policies in the National Planning Policy Framework. These include the requirements for local authorities to adopt proactive strategies to mitigate and adapt to climate change in line with the provisions and objectives of the Climate Change Act 2008 and co-operate to deliver strategic priorities which include climate change.

2.3. In addition to the statutory requirement to take the NPPF into account in the preparation of Local Plans, there is a statutory duty on local planning authorities to include policies in their Local Plan designed to tackle climate change and its impacts. This complements the sustainable development duty on plan-makers and the expectation that neighbourhood plans will contribute to the achievement of sustainable development.

2.4. Like all the Greater Manchester local authorities, Bury Council has declared a climate emergency and set a target to be carbon neutral by 2038.

3. Context

3.1. One of the key early stages in the process is to review other policies, plans and strategies which are of relevance to this particular topic area and which help to inform and influence the direction of the Local Plan. There is a need for the Local Plan to be consistent with planning policy at different levels.

3.2. The National Planning Policy Framework (NPPF) sets out Government policy in respect of planning matters and this is supported by Planning Practice Guidance (PPG). This sets out the broad planning framework within which development plans are produced.

3.3. Sub-regionally, the Places for Everyone Plan joint plan (PfE) establishes strategic policies and site allocations across nine of the ten Greater Manchester districts. Following its adoption in March 2024, PfE is now a key part of Bury's development plan that sits alongside the Local Plan.

3.4. There are also a range of other plans and strategies that, whilst not being policy, are of relevance to the Borough from a climate change and carbon reduction perspective.

National planning policy and guidance

3.5. All development plans must be prepared within the context of the Government's planning policies. These are primarily set out within the National Planning Policy Framework (NPPF)[1] which sets out the Government's planning policies for England and how these should be

[1] National Planning Policy Framework

applied. The NPPF provides a framework within which locally-prepared plans for housing and other development can be produced.

3.6. The NPPF is supported by separate policy documents related to waste[2] and traveller sites[3] as well as more detailed information in Planning Practice Guidance[4].

3.7. Central to the NPPF is the Government's objective of achieving sustainable development and it highlights that achieving sustainable development means that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways:

- **an economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
- **a social objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities' health, social and cultural well-being; and
- **an environmental objective** – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

Planning for Climate Change

3.8. Section 14 of the NPPF contains policies on how the planning systems can meet the challenges posed by climate change and flooding. It states that the planning system should take a proactive approach to mitigating and adapting to climate change (para. 163) and should support the transition to a low carbon future by shaping places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure (para. 162).

[2] National Planning Policy for Waste
[3] Planning policy for traveller sites
[4] Planning Practice Guidance

3.9. New development should:

- avoid increased vulnerability to the range of impacts arising from climate change. When new development is brought forward in areas which are vulnerable, care should be taken to ensure that risks can be managed through suitable adaptation measures, including through the planning of green infrastructure; and
- help to reduce greenhouse gas emissions, such as through its location, orientation and design. Any local requirements for the sustainability of buildings should reflect the Government's policy for national technical standards.

3.10. To help increase the use and supply of renewable and low carbon energy and heat, plans should:

- provide a positive strategy for energy from these sources, that maximises the potential for suitable development, while ensuring that adverse impacts are addressed satisfactorily (including cumulative landscape and visual impacts);
- consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure their development; and
- identify opportunities for development to draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.

3.11. Local Planning Authorities (LPAs) should support community-led initiatives for renewable and low carbon energy, including developments outside areas identified in Local Plans or other strategic policies that are being taken forward through neighbourhood planning.

3.12. Planning Practice Guidance (PPG)[5] advises on how to identify mitigation and adaptation measures in the planning process to address the impacts of climate change and how these measures can be integrated into local plans. PPG also advises on which parts of a local plan's evidence base can be used to identify and assess climate risks to an area, including, e.g., the sustainability appraisal, strategic flood risk assessment, and water cycle study.

3.13. Addressing climate change is one of the core land use planning principles which the NPPF expects to underpin both plan-making and decision-taking. To be found sound, Local Plans will need to reflect this principle and enable

[5] https://www.gov.uk/guidance/climate-change

the delivery of sustainable development in accordance with the policies in the NPPF (Paragraph: 001 Reference ID: 6-001-20140306). These include the requirements for local authorities to adopt proactive strategies to mitigate and adapt to climate change in line with the provisions and objectives of the Climate Change Act 2008, and co-operate to deliver strategic priorities which include climate change.

3.14. Section 19 (1A) of the Planning and Compulsory Purchase Act 2004 requires LPAs to include in their Local Plans "policies designed to secure that the development and use of land in the Local Planning Authority's area contribute to the mitigation of, and adaptation to, climate change" (Paragraph: 002 Reference ID: 6-002-20140306).

3.15. The Climate Change Act 2008 establishes a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% in 2050 from 1990 levels.

3.16. Examples of mitigating climate change by reducing emissions (Paragraph: 003 Reference ID: 6-003-20140612):

- Reducing the need to travel and providing for sustainable transport.
- Providing opportunities for renewable and low carbon energy.
- Providing opportunities for decentralised energy and heating.
- Promoting low carbon design approaches to reduce energy consumption in buildings, such as passive solar design.

3.17. Examples of adapting to a changing climate:

- Considering future climate risks when allocating development sites to ensure risks are understood over the development's lifetime.
- Considering the impact of and promoting design responses to flood risk for the lifetime of the development.
- Considering availability of water and water infrastructure for the lifetime of the development and design responses to promote water efficiency and protect water quality.
- Promoting adaptation approaches in design policies for developments and the public realm.

3.18. Engaging with relevant stakeholders will identify how the Local Plan can respond to climate change (Paragraph: 003 Reference ID: 6-003-20140612).

3.19. When preparing Local Plans and taking planning decisions local planning authorities should pay particular attention to integrating adaptation and mitigation approaches and looking for 'win-win' solutions that will support

sustainable development (Paragraph: 004 Reference ID: 6-004-20140612). This could be achieved in a variety of ways, for example:

- by maximising summer cooling through natural ventilation in buildings and avoiding solar gain;
- through district heating networks that include tri-generation (combined cooling, heat and power); or
- through the provision of multi-functional green infrastructure, which can reduce urban heat islands, manage flooding and help species adapt to climate change – as well as contributing to a pleasant environment which encourages people to walk and cycle.

3.20. The impact of climate change needs to be considered in a realistic way (005 Reference ID: 6-005-20140306). In doing so, LPAs will want to consider:

- identifying no or low-cost responses to climate risks that also deliver other benefits, such as green infrastructure that improves adaptation, biodiversity and amenity;
- building in flexibility to allow future adaptation if it is needed, such as setting back new development from rivers so that it does not make it harder to improve flood defences in future; and
- the potential vulnerability of a development to climate change risk over its whole lifetime.

3.21. With regards to evidence the PPG outlines that Climate Change risk assessments can help inform the Local Plan and Sustainability Appraisal(006 Reference ID: 6-006-20140306).

3.22. Local risk assessments can be used to identify those climate risks, including those arising from severe weather events, the planning system can address. Risk assessments could consider the implications for the built environment and development, infrastructure, services and biodiversity, and their subsequent implications for vulnerable groups and community cohesion. Identifying those impacts which pose most potential risk or disruption to the provision of local services will enable vulnerability to be assessed and areas suitable for development to be identified and adaptation responses to be put in place (006 Reference ID: 6-006-20140306).

3.23. Other parts of a Local Plan's evidence base will also include information on climate change risks, such as the Strategic Flood Risk Assessment and Water Resource Management Plan and water cycle studies. Infrastructure providers hold information on the extent of supply and network constraints and their existing plans to reinforce those networks and capacity. Other service providers may also have carried out risk assessments that have

implications for planning, such as health and social service providers (006 Reference ID: 6-006-20140306).

3.24. In terms of energy where energy efficiency improvements require planning permission LPAs should ensure any advice to developers is co-ordinated to ensure consistency between energy, design and heritage matters (Paragraph: 008 Reference ID: 6-008-20140306).

3.25. NPPF expects LPAs when setting any local requirement for a building's sustainability to do so in a way consistent with the government's zero carbon buildings policy and to adopt nationally described standards. Local standards will need to be based on robust evidence, taking into account the Government's Housing Standards Review (Paragraph: 009 Reference ID: 6-009-20150327).

Renewable and Low Carbon Energy

3.26. Planning for renewable and low carbon energy will help reduce greenhouse gases and slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.

3.27. Planning Practice Guidance (Paragraph: 003 Reference ID: 5-003-2014030) advises that LPAs should first consider what the local potential is for renewable and low carbon energy generation and consider:

- the range of technologies that could be accommodated and the policies needed to encourage their development in the right places;
- different technologies have different impacts and impacts can vary by place;
- the UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no target which the Local Plan has to deliver.

3.28. LPAs may wish to establish policies which give positive weight to renewable and low carbon energy initiatives which have clear evidence of local community involvement and leadership (Paragraph: 004 Reference ID: 5-004-20140306)

3.29. There are no hard and fast rules about how suitable areas for renewable energy should be identified, but in considering locations, LPAs will need to ensure they take into account the requirements of the technology and,

critically, the potential impacts on the local environment, including from cumulative impacts. Identifying areas suitable for renewable energy in plans gives greater certainty as to where such development will be permitted. Wind turbines should not be permitted unless it is in an area identified as suitable for wind energy development in a Local or Neighbourhood Plan. Maps showing wind speeds will not be sufficient (Paragraph: 005 Reference ID: 5-005-20150618).

3.30. Policies based on clear criteria can be useful when they are expressed positively (i.e. That proposals will be accepted where the impact is or can be made acceptable) (Paragraph: 007 Reference ID: 5-007-20140306).

3.31. The PPG also sets out detail on the issues that need to be considered for each type of technology.

Net Zero Strategy: Build Back Greener (2022, HM Government)

3.32. This strategy aims to help deliver the UK's carbon budgets as set out in the Climate Change Act, the 2030 Nationally Determined Contribution, and carbon net zero by 2050. It includes our decarbonisation pathways to net zero by 2050, including illustrative scenarios policies; proposals to reduce emissions for each sector and cross-cutting action to support the transition.

UK Clean Growth Strategy (2017)

3.33. Under the Climate Change Act 2008, the UK Government is required to publish a set of policies and proposals to ensure that the UK meets its legally-binding carbon budgets on the way to net zero by 2050. The Clean Growth Strategy sets out the Government's plans. The strategy presents a comprehensive set of policies and proposals to help accelerate the pace of 'clean growth'. These include policies to improve business and industry efficiency, improve energy consumption in homes, accelerate the shift to low carbon transport, deliver clean, smart and flexible power, enhance the benefits and value of the UK's natural resources, reduce carbon emissions in the public sector, and demonstrate Government leadership in driving clean growth.

25 Year Environment Plan (A Green Future: Our 25 Year Plan to Improve the Environment, 2018)

3.34. The Environment Plan sets out the government's goals for improving the environment within a generation and leaving it in a better state than we

found it. It details how government will work with communities and businesses over the next 25 years.

3.35. The plan sets targets for:

- Clean air;
- Clean and plentiful water;
- Thriving plants and wildlife;
- Reducing the risks of harm from environmental hazards;
- Using resources from nature more sustainably and efficiently;
- Enhancing beauty, heritage and engagement with the natural environment;
- Mitigating and adapting to climate change;
- Minimising waste;
- Managing exposure to chemicals; and
- Enhancing biosecurity

Future Homes Standard (2019)

3.36. From 2025, the Future Homes Standard will introduce mandatory changes to Part L and Part F of Building Regulations for new residential dwellings, which aim to ensure that all new-build homes will produce 75-80% less carbon emissions than homes built under current Building Regulations. The standard aims to decarbonise new homes by focussing on improving heating and hot water systems and reducing waste heat.

Greater Manchester Strategy 2021-2031

3.37. The Strategy[6] is Greater Manchester's plan for all communities, neighbourhoods, towns and cities which make up the city-region. It is a plan for recovery and renewal following the pandemic.

3.38. The Strategy aims to achieve the shared vision of 'Good Lives for All: that Greater Manchester is a great place to grow up, get on and grow old; a great place to invest, do business, visit and study' and how this will be achieved.

3.39. The Strategy builds on the work undertaken by the Greater Manchester Strategy - Our People, Our Place (2017), by ensuring that all the people in Greater Manchester have access to safe, decent and affordable transport,

[6] https://aboutgreatermanchester.com/the-greater-manchester-strategy-2021-2031/

accelerate plans towards carbon neutrality, creation of greener homes and communities and better jobs and skills.

3.40. The Strategy focuses on three key themes of:

- A greener Greater Manchester – focusing on tackling climate change and working toward our carbon neutral aim;
- A fairer Greater Manchester – addressing inequality and levelling-up, from access to good jobs, to transport, health and housing.
- A more prosperous Greater Manchester – delivering economic growth which is more equitable and socially responsible, bringing opportunities and prosperity to all.

Places for Everyone

3.41. Places for Everyone (PfE) was prepared as a Joint Development Plan Document of nine of the ten Greater Manchester local planning authorities (Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford and Wigan). The plan was formally adopted in March 2024.

3.42. PfE is the strategic spatial plan that sets out a collective planning policy framework for the nine constituent boroughs. All policies within the plan are 'strategic policies' and it forms a key part of Bury's wider development plan and is used to determine individual planning applications. As such, Bury's Local Plan will need to be consistent with PfE.

3.43. As a strategic plan, Places for Everyone does not cover everything that Bury's Local Plan would. Therefore, Bury's Local Plan will set out more detailed policies reflecting local circumstances.

3.44. Policy JP-S1: Sustainable Development states that to help tackle climate change, development should aim to maximise its economic, social and environmental benefits simultaneously, minimise its adverse impacts, utilise sustainable construction techniques and actively seek opportunities to secure net gains across each of the different objectives.

3.45. In preparing plans, authorities should make as much use as possible of suitable previously developed (brownfield) land and vacant buildings to meet development needs.

3.46. It also advises that in bringing forward previously developed sites for development, particular attention will be paid to tackling land contamination and stability issues, ensuring that appropriate mitigation and remediation is implemented to enable sites to be brought back into use effectively.

3.47. Policy JP-S2: Carbon and Energy sets out the aim of delivering a carbon neutral Greater Manchester no later than 2038, with a dramatic reduction in greenhouse gas emissions. It states that this will be supported through a range of measures including:

1. Promoting the retrofitting of existing buildings with measures to improve energy efficiency and generate renewable and low carbon energy, heating and cooling;
2. Promoting the use of life cycle cost and carbon assessment tools to ensure the long-term impacts from development can be captured;
3. Taking a positive approach to renewable and low carbon energy schemes, particularly schemes that are led by, or meet the needs of local communities;
4. Increasing the range of nature-based solutions including carbon sequestration through the restoration of peat-based habitats, woodland management, tree planting and natural flood management techniques;
5. An expectation that new development will, unless it can be demonstrated that it is not practicable or financially viable;

    a) Be net zero carbon(29) which applies:

    - from adoption– to regulated operational carbon emissions;
    - from 2028 - to all emissions ‘in construction’.

    From 2025 development should also calculate and minimise carbon emissions from unregulated emissions alongside regulated emissions.

    Development proposals should set out how this has been achieved in an energy statement in accordance with the energy hierarchy, which in order of importance seeks to:

    i. Minimise energy demand;
    ii. Maximise energy efficiency;
    iii. Use renewable energy;
    iv. Use low carbon energy; and
    v. Utilise other energy sources.

    From 2025 any residual carbon emissions that cannot be fully mitigated on-site should be offset, in agreement with the relevant local planning authority through a financial contribution to a carbon offset fund.

    As an interim measure, development should be consistent with the 2022 Part L Building Regulations unless superseded by

changes to building regulations and/or national or local planning policies.

b) Incorporate adequate electric vehicle charging points, in line with Part S of the Building Regulations, unless superseded by relevant Local Plan policies, to future proof for the likely long-term demand, taking account of the potential maximum energy demand for the site;

c) c. Where practicable, prioritise connection to a renewable energy/heating/cooling network in the first instance or a low carbon energy/heating/cooling network that is adaptable to non-fossil fuels at a later date;

d) d. In residential developments, achieve energy demand reductions in terms of space heat demand; hot water energy demand and the delivery of on-site renewable energy generation, in accordance with Table 5.1.

3.48. The Policy concludes that districts may set out specific carbon emission reduction and energy demand targets within Local Plans.

3.49. Policy JP-G2 Green Infrastructure Networks states that a strategic approach will be taken to the protection, management and enhancement of our Green Infrastructure in order to protect and enhance the ecosystem services which the Green Infrastructure Network provides, including flood management, climate change mitigation and adaptation. Alongside this primary function an enhanced Green Infrastructure network will support wider public health benefits, including promotion of active travel, food growing and recreational opportunities.

The Greater Manchester Strategy (GMCA, 2018)

3.50. The vision is to make Greater Manchester one of the best places in the world to grow up, get on and grow old...a place at the forefront on climate change with clean air and a flourishing natural environment.

3.51. Priority 7: A green city-region and a high quality culture and leisure offer for all seeks to reduce carbon emissions and air pollution, increase resilience, more sustainable consumption and production, and an outstanding natural environment.

3.52. The ambitions of the strategy are for Greater Manchester to be a carbon neutral city-region.

Greater Manchester Five-Year Environment Plan (2019-2024)

3.53. The Greater Manchester Five-Year Environment Plan, published by the GMCA in 2019, identifies 5 major environmental challenges that threaten the future health and prosperity of the city region. These are:

- Mitigating climate change
- Air quality
- Production and consumption of resources
- Natural environment
- Resilience and adaptation to the impacts of climate change

3.54. As stated in the Five-Year Environment Plan, we are already experiencing impacts from a rapidly changing and increasingly extreme climate. These impacts are projected to increase over time. To begin to address the challenges of climate change, we need to ensure that as a result of any activities, we do not increase the levels of climate risk faced by future generations and work in a way that proactively reduces climate risks and increases our resilience. The plan outlines 4 priorities for resilience and adaption to climate change in Greater Manchester:

- Priority 1: Embedding climate change resilience and adaptation in all policies.
- Priority 2: Increasing the resilience and investment in our critical infrastructure.
- Priority 3: Implementing a prioritised programme of nature-based climate adaptation action.
- Priority 4: Improving monitoring and reporting.

3.55. The plan recommends that the actions for local policy are to develop a resilience strategy, undertake a Strategic Flood Risk Assessment, implement proposals to manage flood risk in new development, develop an infrastructure strategy to address key infrastructure challenges related to flood risk and resilience, develop an investment strategy for future flood risk infrastructure, and increase investment into nature-based adaptation solutions.

Bury's 'Let's Do It!' Strategy

3.56. Bury's Let's Do It Strategy is a ten-year vision and strategy for the Borough. It seeks to build upon a shared sense of local pride and act as a call to arms

for progressing the local vision of achieving *'faster economic growth than the national average, with lower than national average levels of deprivation'*.

3.57. It is a single strategy for the council, police, health, other public services, the voluntary, community and faith sector and business communities and some of its key aims are to:

- Develop every township in the borough to be better and stronger than before the Covid-19 pandemic;
- Tackle the causes of inequality and ensure that our children have a better start in life, with access to improved education and broader horizons;
- Help every adult to have the opportunity to be their very best through access to high quality, local work and to help our older residents stay connected and independent;
- Support local businesses as they seek to recover and thrive; and
- Deliver net zero emissions and a cleaner environment for all.

3.58. Bury's Local Plan will play a key role in delivering the vision and aims of the Let's Do It Strategy and, as such, it is important that there is alignment between these two key local strategies.

Bury's Greenhouse Gas Emissions Report

3.59. Since 2008/09 we have measured the greenhouse gas emissions from council activities and each year we produce a greenhouse gas report which describes our progress.

3.60. Bury Council have set an objective of being carbon-neutral by 2038 and Bury Council's latest Carbon Emissions Report (Green House Gas Emissions) demonstrates that the council has reduced its emissions by 70% since the base year of 2008/09 and has made another year-on-year reduction from 22/23 of 6%.

Bury Climate Action Strategy (2021)

3.61. The Bury Climate Action Strategy outlines the challenges facing the borough and the changes, actions and initiatives required in order to achieve carbon neutrality by 2038.

3.62. The Strategy includes the following nine key action areas:

1. **Our energy supply** - We will work to generate and source all our local energy needs from zero-carbon renewable sources by 2038.

2. **Our homes, workplaces and public buildings** - We will work to ensure that all our buildings are carbon neutral by 2038. We will achieve this by improving the efficiency of our buildings and changing the way we power and heat them.
3. **Low carbon travel** - We will work towards having fossil-fuel-free travel by 2038. We will achieve this by promoting active travel and public transport and transition the necessary vehicles to zero emission alternatives.
4. **The things we buy and throw away** - We need to buy, use, and dispose of goods in a sustainable way so that our collective decisions do not add indirectly to the burden of climate change, creating pollution in Bury or elsewhere.
5. **Food** - We need to work towards reducing the impact of our diet on climate change. This requires a shift to more plant-based options and buying local seasonal food.
6. **Our natural environment** - Working with our natural environment to limit and reverse the impacts of climate change, by increasing woodland cover and by protecting and enhancing soil environments and natural habitats.
7. **The green economy -** Working to support our businesses to transition to carbon neutrality and to provide a suitable and sufficient commercial sector to future proof our local economy in a sustainable manner.
8. **Environmental justice** - Working towards ending fuel poverty and identify and address environmental injustices in our borough.
9. **Climate resilience and adaptation** - Adapting our borough's buildings, infrastructure and natural environment to the changing climate and increasing the climate resilience of our residents and organisations.

3.63. The Bury Climate Action Plan is a fluid and organic document that will be annually updated, tracking the progress of climate change initiatives and highlighting where more work is required.

3.64. The Action Plan will keep track of the different projects across different departments, groups and organisations throughout the borough. The Climate Action Plan will help Bury stay on track towards the end goal of carbon neutrality and provide as much accountability and transparency as possible.

3.65. The Bury Climate Action Plan is updated yearly.

Local Area Energy Plan (2021)

3.66. The Bury Local Area Energy Plan (LEAP) identifies opportunities for low carbon energy including solar, hydrogen, heat pumps, electric vehicle charging and district heat networks.

3.67. A key challenge for Greater Manchester and Bury over the next five years is to build collective and coordinated action such that long-term investment in low carbon infrastructure is made in the 2020's and investment scale-up and mass market deployment of low carbon technologies is achieved through the 2030's.

3.68. Achieving this will require taking action in the 2020s to act as the catalyst for change and to ensure supporting infrastructure is invested in as the backbone of a zero-carbon energy system for Bury. It will require systematic changes in consumer and business behaviours, Bury's local energy networks, the use of energy in its buildings and the ways people move around.

3.69. The LEAP identifies the following priority/pioneer areas:

- Whilst both Radcliffe and Whitefield have been identified as areas to test heat pump deployment, due to high numbers of detached and semi-detached dwellings. Whitefield has been prioritised as it has not been highlighted as a cost-effective area for hydrogen fuelled heat.
- Prestwich, Whitefield and Bury Town East are prioritised for fabric retrofit deployment, predominantly due to high proportions of inter-war dwellings (1914 to 1944) that would benefit from thermal improvement.
- Prestwich is a potential hydrogen for heat initial pioneer area and also an area to explore the potential role for widescale solar PV deployment to alleviate network constraints and establish local energy markets.
- Tottington is a potential heat pump for heat initial pioneer area.
- Flexibility and storage (combined with other components including heat pumps, solar PV and EV charge points) can be tested in Whitefield, including a focus on evaluating if alternative approaches to electricity network reinforcement provide benefit.
- Bury Town East and West are prioritised for the demonstration of solutions for Bury's non-domestic buildings.

4. Local Profile

Climate Change

4.1. Climate change is an important factor which threatens our environment and our health. In the north west of England, predicted changes to our climate are likely to result in increased temperatures, heavier rainfall and, generally more extreme weather events.

4.2. Such events will have direct and indirect impacts on health, disproportionately affecting vulnerable populations including children and the elderly. The 2010 Marmot report states that tackling social inequalities in health and tackling climate change must go hand in hand. The 2020 Update to this 'Health Equity in England: The Marmot Review 10 Years On ' outlines that the risks arising from climate breakdown are better understood in 2019 and that climate change already poses an unacceptably high risk to human health and wellbeing by worsening inequalities; older people are at most risk of extremes of heat and cold; lower income groups are disproportionately impacted by extreme weather by virtue of living in poorer quality housing in vulnerable locations and conditions and not being able to afford to move, and tenants are more vulnerable than owner-occupiers as they have less ability to modify their homes and to prepare for and recover from climate events.

4.3. Met Office analysis shows that in England milder, wetter winters and hotter, drier summers will increase, with the number of intense hot days and heavy rainfall events also likely to increase. Without action, annual UK heat-related mortality is projected to increase from a current baseline of approximately 2,000 heat-related deaths (in the 2000s) to more than 7,000 per year in the 2050s.

4.4. The impacts on health from these predicted changes can be outlined as follows:

- Overheating, dehydration and heatstroke in very hot conditions can lead to thermal illness. The heat wave in Britain during the summer of 2003 for example resulted in an estimated 2,000 excess deaths, 17 per cent above the expected number. Older people are believed to be particularly at risk during heatwaves.
- Respiratory and cardiovascular disease from high levels of air pollution and periods of hotter than average temperatures.
- Higher temperatures may increase time spent outdoors which would increase exposure to UV radiation which is associated with a higher risk of

skin cancer. By 2020 it is predicted that there will be a 150% increase in levels skin cancer in the North West compared to 2005.

- Rising temperatures, increased rainfall and flood events are predicted to increase the incidence of gastrointestinal and insect borne diseases.
- Experience of flooding and disasters that damage property, leading to relocation and loss of possessions can have a huge impact on mental health and wellbeing.
- Increased flooding and storms increases the risk of injury, death and damage to infrastructure which may reduce access to health care facilities. This risk is increased for the disabled, elderly and isolated individuals.

4.5. In 2019, Bury Council declared a climate emergency in response to overwhelming scientific evidence that human activity is changing our planet's climate. These changes are predicted to have extreme impacts on the earth making it a more difficult place for people, animals, and wildlife to thrive. In response, the Council has produced a Climate Action Strategy and Action Plan, outlining the Council's approach to reaching the goal of carbon neutrality by 2038.

4.6. This target of carbon neutrality applies to the entire borough, not just the operations of Bury Council, meaning all Bury's buildings, businesses, operations, and services must not produce any more carbon than what is being captured by plants and trees, or is offset.

4.7. According to the National Trust's Climate Hazard Map[7] by 2060, Bury will have a very high risk of overheating and high humidity (Prestwich & Whitefield); high risk of storm damage (entire Borough); and high risk of slope failure (Ramsbottom).

4.8. The effects of climate change are already being felt around Bury and human health and life is being put at an ever-greater risk with increasing flood risk and summer heatwaves becoming more common.

4.9. Planning can help to mitigate the impact of climate change such as by increasing tree cover through green infrastructure (see Natural Environment topic paper) and promoting an increase in the amount of energy generated from renewable sources (see Energy and Physical Infrastructure topic paper).

[7] National Trust (2021). Climate Hazards Map. See: https://nationaltrust.maps.arcgis.com/apps/webappviewer/index.html?id=0bc569747210413a8c8598535a6b36e1

Bury's emissions

4.10. The Government regularly publishes Local Authority and regional carbon dioxide emissions national statistics. Emissions for Bury between 2005-2022 have fallen from 7.7 tco2E per capita to 4.0 Tco2E per capita.

4.11. In Bury the main contributor of carbon dioxide emissions was from domestic and transport. However, between 2005 and 2022, the levels of emissions from transport and domestic sources have dropped significantly for Bury, by 22% and 50% respectively.

4.12. A significant proportion of the carbon emissions from transport will be from motorways and these are outside our local control. However, transport is the biggest source of greenhouse gases in the UK and emissions continue to grow. The "Transport for Quality of Life" report suggests that to deliver the greenhouse gas reductions needed, we will be required to reduce car use by between 20-60% depending on factors such as the speed with which we switch to electric vehicles[8].

4.13. Over recent years the Council have seen Council related direct emissions reduce. Gas use in Council building's accounts for the most emissions, with electricity use close behind. Reductions have been made in the Council's gas consumption, which is likely due to the Council reducing the number of buildings it operates. There has also been a reduction in vehicles emissions which is likely due to the introduction of new more efficient fleet vehicles[9].

4.14. Council emission sources for 2023/24[10] include:

- Corporate buildings: 40%
- Schools: 27%
- Streetlights: 11%
- Council vehicles: 13%
- Business travel: 4%
- Mobile equipment: 0%
- Transmission and losses: 3%
- Working from home 2%

4.15. It is clear to see that most of the emissions are coming from corporate buildings and schools, which makes up 67% of the total. The other significant sources are streetlights (11%) and transport (council vehicles

[8] Transport for Quality of Life (2021). Transport and Climate Change. See: https://www.transportforqualityoflife.com/policyresearch/transportandclimatechange/
[9] Bury's Climate Action Strategy and Action Plan - Bury Council
[10] Bury Council's Greenhouse Gas Emissions Report 2023/24 - Bury Council

13% and business travel 4%). However, we have made some progress on reducing our emissions year on year since the base year of 2008/09 and we are ahead of schedule to achieve our target of being carbon neutral by 2038.

4.16. It is also important to note that our emissions have reduced significantly since the base year due to a reduction in the size of our operations including the academisation of schools, which has removed the emissions of those schools out of scope. We have also made progress in reducing our emissions from our current operations by upgrading our fleet of vehicles for more efficient vehicles including 15 electric vans, introducing solar panels to a number of buildings, and improving the energy efficiency of its buildings through using Public Sector Decarbonisation Scheme funding. The continued decarbonisation of the national electricity grid is another significant contributor to our falling emissions.

4.17. To continue with our current trend of reducing emissions faster than required, we need to make significant progress on tackling the areas where emissions remain consistent. This includes moving away from fossil-fuel based heating systems, i.e., gas boilers, improving the energy efficiency of our buildings and decarbonising our fleet

Renewable energy

4.18. The Climate Action Strategy highlights that if we are to meet our carbon neutral target, renewable heat and power generation needs to be maximised and electricity sourced from certified renewable or zero carbon sources. The strategy also highlights that there needs to be an increase in the efficiency of renewable energy generation technology such as in solar photovoltaic panels or onshore wind turbines.

4.19. The Climate Action Plan which was updated in March 2024 has seen a 5% increase in renewable energy generation since the strategy was published in 2021.

4.20. Using renewable energy is therefore an essential component of a sustainable future. Consequently, it is imperative to look at ways in which we can reduce our energy consumption and promote the development of renewable energy resources. In Bury, renewable energy schemes may involve solar or the development of heat networks. New developments should include ground or air source heating, solar panels, local power generation schemes, energy efficient and heat resilient building design or electric vehicle charging points.

4.21. While the provision of on-site renewable energy provision should be the priority for new developments, it is recognised that it may not always be feasible or viable to meet all energy demand in this way. Therefore,

developments should maximise opportunities to source additional energy from renewable or low-carbon sources off-site, such as through connection to a District Heat Network.

Our Priorities

4.22. Climate change and its associated environmental issues cover a wide range of topics and therefore our Climate Action Strategy identifies 9 priority areas for action:

1. Energy Supply
2. Homes, Workplaces & Public Buildings
3. Low Carbon Travel
4. Consumption & Waste
5. Food
6. Natural Environment
7. Green Economy
8. Environmental Justice
9. Climate Resilience & Adaptation

Energy Supply

4.23. While Bury Council has little influence over national energy suppliers, we can still lead by example and ensure our own assets are powered by zero-carbon sources whether that is through procuring green energy or renewable generation via our own land.

4.24. Currently, 21 Council assets have been assessed for their feasibility of having solar PV installed to help reduce the amount of energy required to heat and power the Council's buildings and work is ongoing to procure the Council's electricity from renewable sources. At the end of the financial year 23/24 the council have converted 70% of its streetlighting to light-emitting diodes (LEDs), which use much less energy[11].

4.25. We will also continue to work with residents, businesses and action groups to explore how they can reduce their energy use, switch to more renewable methods of production and engage with local community energy projects.

[11] Bury Council's Greenhouse Gas Emissions Report 2023/24 - Bury Council

Homes, Workplaces & Public Buildings

4.26. Bury's Housing Strategy 2021-2025[12] identifies the following two renewable energy steps to take place to help Bury meet its housing target of 100% net-zero carbon new homes by 2028 and 100% carbon neutral homes by 2038:

- Making sure electricity is sourced from certified renewable or zero carbon sources.
- Identifying, sourcing/producing and installing modern renewable energy technologies and making provision for retrofitting homes with new sources and technologies that may emerge in future years.

4.27. The Bury Housing Strategy also highlights how, through partnership working with other local authorities through the Greater Manchester Combined Authority and with the GM Housing Providers group and GM Local Energy Market, Bury is better placed to:

- Exploit renewable energy potential in relation to solar, hydro and wind on our land and buildings.
- Establish local energy networks to supply renewable energy to Bury residents.
- Build the green energy sector to ensure we have sufficient service providers that can deliver new retrofit components and renewable heating systems.
- Equip and upskill our local workforce and construction industry with the necessary skills to deliver renewable heat and energy systems in the domestic and commercial sector – coordinated with training colleges.
- Develop local supply networks for installation and maintenance of energy efficiency measures and renewable energy.
- Make energy efficiency and renewable energy options more accessible and attractive to our residents.

4.28. At present, there are very few retrofit upgrades taking place in Bury's domestic and non-domestic buildings, except for some registered housing providers and a handful of proactive homeowners. This is a result of lack of knowledge and awareness, low levels of funding available (including grants and low-cost loans), lack of available local skills, issues with supply chain, and a lack of financial incentives and business models making retrofitting a feasible option for homeowners and landlords.

[12] https://www.bury.gov.uk/housing/bury-housing-strategy

Low Carbon Travel

4.29. The transport network is one of the biggest contributors to carbon emissions. Transport decarbonisation will be achieved by encouraging people and businesses to use zero emission vehicles such as electric buses and vans which will be supported by plans in Bury for electric vehicle charging infrastructure points. Decarbonising can be achieved if a higher proportion of travel is by walking, cycling and wheeling, particularly for short trips to school, work or transport interchanges with bus and Metrolink.

4.30. When locating and designing new development, it is therefore essential to ensure that reliance on the private car is minimised and measures to encourage people to walk, cycle or wheel short distances are maximised to provide people with a greater choice of transport options. This can be achieved in several ways, including by locating development in areas with accessible and safe walking and cycling connections to local shops and services, close to public transport nodes such as bus stops and train stations, providing good quality, accessible and attractive off-road active travel routes linking the development to shops, services and local employment hubs. Well Connected Community design principles should be incorporated to ensure that all new developments are situated within a short walk from shops, services and employment hubs.

4.31. The need to support the shift to EV technology is also recognised as a key infrastructure requirement. According to the Climate Action Strategy, Bury needs a minimum of 108 public electric vehicle charge points. However, the Council is currently behind the national average for provision of EVCI per 100,000 of the population

4.32. The council intend to support the delivery of EV infrastructure by delivering charging points in more locations and providing multi-storey travel hubs where EV charging will be integrated. The council also recognises the importance of new business models to shared mobility such as car clubs.

4.33. The Council have appointed an EVCI supplier under a concessionary arrangement to install Rapid and Ultra-Rapid charging points on Council land and TfGM have installed 3 Rapid Charging hubs for taxis. Each hub has two rapid chargers just for taxis and are located at:

- Trinity Street car park.
- Foundry Street car park.
- Whitefield park and ride.

4.34. The location of development is essential for ensuring that emissions from transport are kept to a minimum. Therefore, non-residential development

must be located in locations that are accessible either on-foot, by bike or public transport. Secure bicycle parking and showering facilities provided as part of the development encourage people to cycle to and from work.

Consumption & Waste

4.35. Bury adopted a Zero Waste Strategy in July 2014[13]. Bury's ambition is to reduce the amount of waste sent for treatment and disposal and to maximise recycling through ongoing education and awareness raising.

4.36. Between 2020 to 2021, a total of 72,585 tonnes of waste was collected in Bury, 67,985 of which was household waste. 50% of this was being sent for recycling composting reuse which is above the regional Household Recycling Rates. In relation to non-household rates, 0% of the waste produced was not sent for recycling-composting reuse[14].

4.37. Whilst many of the things we buy are produced outside Bury we have a responsibility for the carbon footprint of the things we buy and throw away. The damage done to our environment caused by waste products can be avoided if more sustainable decisions are made at the production stage. We need to change the way that we as consumers treat end of life products. Our consumption habits form a large part of our carbon footprints and therefore there is a large scope of options in how we can improve.

4.38. Paragraph 8 of the NPPF sets out its objectives for achieving sustainable development. Its environmental objective includes the minimisation of waste as an important factor. In order to adequately address climate change, it will be important to minimise the quantity of raw materials used to manufacture products around the world. The reuse of waste materials should therefore be maximised through extensive recycling, including of building materials at the point of demolition. Raw building materials should be sourced locally, wherever possible, and consideration should be given to materials which have low embodied carbon.

Food

4.39. Emissions resulting from our consumption of food are very difficult to assess with any accuracy. However, research estimates that food and drink represent about 20% of Bury's total greenhouse gas emissions [15].

4.40. Although we can't measure progress very easily, we must take action wherever we can to reduce waste and source food which is more sustainably

[13] https://councildecisions.bury.gov.uk/documents/s4160/Waste%20Strategy%20-%20final%20version.pdf
[14] https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2F
[15] Small World Consulting Ltd (2011). The Total Carbon Footprint of Greater Manchester. See: http://media.ontheplatform.org.uk/sites/default/files/gm_footprint_final_110817.pdf

produced. Within Bury we have many independent and local markets, producers and retailers and we need to work with these businesses to promote them and get more people engaging with them to reduce associated carbon with our diets.

4.41. Bury was awarded the prestigious Sustainable Food Places Bronze award (led by the Soil Association, Food Matters and Sustain) (June 2022). The award recognises the work of Bury Food Partnerships to promote healthy, sustainable, and local food and to tackle some of today's greatest social challenges: from food poverty and diet-related ill-health to the disappearance of family farms and the loss of independent food retailers.

Natural Environment

4.42. Our parks, gardens, woodlands, street trees and other elements of Bury's green infrastructure have an essential part to play in helping us meet our climate change objectives. Greenspace and green infrastructure can help us mitigate our changing climate by helping manage flood risk and heat stress as well as helping to reduce CO_2. To stay within our carbon budgets, we need our land to become a net remover of carbon. At the same time our green and blue spaces also deliver a myriad of other benefits such as improved physical and mental health, increased biodiversity, supporting jobs, creating attractive neighbourhoods, adding to an active travel network and many others.

4.43. As new developments are designed and created, we need to work with the developers to ensure sustainable methods and materials are utilised to reduce their impact on the local environment. Most developments are now required to provide net gains for biodiversity so a variety of plants and animals can survive and thrive.

Green Economy

4.44. To retain a healthy economy and the businesses that provide the goods, services and employment opportunities we need, we have to move towards a low carbon more resource efficient economy that is kind to our environment and helps us to meet our carbon neutral target. As well as existing businesses becoming greener, we need to support the creation and development of new businesses that will provide the technologies, innovations, goods and services of a low carbon future.

4.45. Investment in renewable and zero carbon solutions supports the creation of jobs in the industries and the development of infrastructure that we need to tackle the climate crisis and a workforce that will be able to contribute and benefit from a new green economy.

Environmental Justice

4.46. Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. In other words, your health should not suffer because of the environment where you live, work, play or learn[16].

4.47. Fuel poverty forms a large part of environmental justice, and the phrase is used to describe the situation where a household can't pay for its energy needs without compromising other basic needs like food, transport, or clothing.

4.48. According to estimates from 2020, approximately 11,035 households in Bury are in fuel poverty. Bury has the same proportion of households in fuel poverty for 2020 as England at 13.2% and is the fourth lowest amongst its statistical neighbours for this measure. However, it is worth noting that in some areas of the Borough we have levels of fuel poverty which reach between 15.2 and 17.6%[17].

4.49. People who live in cold homes and can't afford to heat them will experience direct health implications and these will particularly affect the most vulnerable such as infants and the elderly. Excess winter deaths, circulatory diseases, respiratory problems, and mental health issues are some of the more common consequences of living in a home that is not adequately heated. There were 90 excess winter deaths in Bury for the period August 2019 – July 2020 which equates to 16.1%, not significantly different to the percentage for England for the same time period of 17.4%[18].

4.50. By 2038, we need to have eradicated all fuel poverty in our borough and ensure that 100% of homes of those on lower incomes are carbon neutral and achieving excellent standards of energy efficiency.

Climate Resilience & Adaptation

4.51. Bury's climate is changing, and we have already experienced impacts such as the Boxing Day Floods of 2015 and other extreme storms such as Ciara and Christoph in the last five years. The results can be devastating for our local communities. We need to adapt and build resilience to changing

[16] Multiple Authors (2021). Environmental Justice. See: https://www.sciencedirect.com/topics/earth-and-planetary-sciences/environmental-justice
[17] https://theburydirectory.co.uk/environment
[18] https://theburydirectory.co.uk/environment

patterns of extreme weather events, focussing particularly on hazards such as floods which evidence suggests are a particular threat to Bury.

4.52. Climate change projections for Bury point towards us experiencing warmer and wetter winters, hotter, drier summers and more periods of extreme heat and heavy rainfall. Winter rainfall could increase by around 30% across Greater Manchester by 2065 and the warmest day could rise by 6 degrees Celsius at this point[19].

4.53. These changes will have a major effect on Bury's people, environments, buildings, and infrastructure. Recent research has identified climate change risks to Greater Manchester's critical infrastructure which is central to people's livelihoods and quality of life. Floods and storms account for the higher risks and these events stand out as priorities for adaptation and resilience planning and action. There is also the risk that changing climate leads to new diseases and therefore more pandemics. Our recent experience with COVID-19 has highlighted the health inequalities present in our society and how these types of events can affect our communities.

4.54. Robust action on climate change adaptation is required to protect the most vulnerable communities, our economy, key infrastructure, and our natural environment.

4.55. As well as adapting to new climates we also need to adapt as new technology is developed and technologies associated with carbon offsetting need to be appropriately considered.

5. Summary of Key Issues

5.1. This Climate Change and Carbon Reduction Topic Paper has highlighted several key issues that need to be considered in taking the Local Plan forward. These key issues are as follows:

- The need to support Greater Manchester's and Bury's climate change objectives to be carbon neutral and build resilience through mitigating and adapting to climate change.
- The need to identify a positive strategy to ensure that growth is matched with secure, affordable and sustainable energy.
- The need to increase renewable energy generation.
- The need to tackle carbon emissions from the Borough's use of goods and raw materials, including food and waste.

[19] Bury's Climate Action Strategy and Action Plan - Bury Council

- How to respond to climate change impacts in ways that reduce poverty and inequality, improve health and wellbeing, and stimulate the local economy and green job creation.
- Reducing carbon emissions from travel and transport towards our carbon neutral goals through walking, cycling, improved public transport and ultralow emissions vehicles.
- The need to enhance and protect biodiversity, green spaces, and trees from climate change impacts.

Bury Council