

Appendix 1

# **Draft City of Lincoln Council Decarbonisation Strategy and Action Plan**

## **Responding to the Climate Emergency**

### **2020-2030**



CITY OF  
**Lincoln**  
COUNCIL

Together, let's deliver  
Lincoln's ambitious future



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## Introduction

### What does carbon neutrality mean?

Carbon neutrality means reducing net emissions by at least 95%, there may be a residual 5% of emissions that is not technically feasible to eliminate by 2030. The UK Government ambition is for carbon neutrality across the entire UK public sector, i.e. some public sector organisations may be able to achieve negative emissions, to balance out unavoidable emissions in other organisations. Our contribution to this ambition will reflect future UK Government guidance.

### What is a Decarbonisation Plan?

The purpose of a Decarbonisation Plan is to describe how the City of Lincoln Council intends to replace fossil fuel reliant systems with low carbon alternatives (e.g. Electric Vehicles, renewable energy). To meet the challenge of net zero, the Council will need to decarbonise its buildings and transport over the next 10 years.

The Plan describes the current state of the Council's energy use and its plans for reducing and/or decarbonising its energy use. The plan outlines what the Council has already done, what it is currently doing, what it plans to do in the future. The plan explains what actions are going to be taken, over what timescales, and the intended outcomes.

### Scope of the Decarbonisation Plan

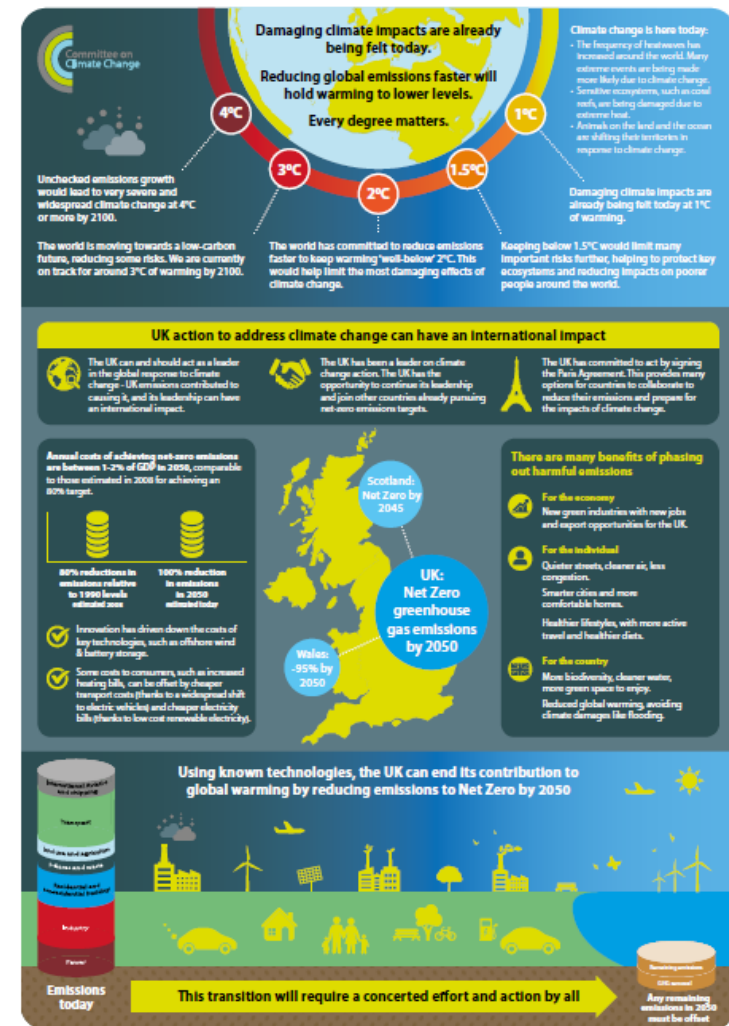
The Plan looks at emissions that are in our direct control, i.e. the Council's transport fleet or how we heat our buildings, as well as the services that the Council provides such as managing parks and open spaces or waste collection.

We recognise that some elements of our emissions are not solely in our direct control and/or will require additional support to achieve, e.g. the availability of low carbon technology and decarbonisation of the power grid. We will seek to collaborate with partners and advocate for actions in these areas. The Council are working closely with the [Lincoln Climate Commission](#) to develop a citywide Climate Strategy and Action Plan which will focus on how we are collectively going to achieve a net zero Carbon target for Lincoln by 2030.

# Climate change and the need for decarbonisation

In 2015 the UK government joined an overwhelming majority of countries from around the world by signing the Paris Agreement. This consensus acknowledged the scientific advice and evidence of thousands of the world's best climate scientists and the need to ensure the average temperature of the earth's surface warms by no more than 1.5°C from the earth's temperature in approximately 1850-1900 (pre-industrial levels). The earth's average temperature is currently approximately 15°C. This shows why the constant human activity which causes additional increases to the global average temperature (in addition to any irregular but essential natural events that have a warming effect e.g. volcanic eruptions) must be addressed by mankind's next evolution to a new low carbon age.

Reducing emissions to safe levels can be done with existing technologies and knowledge. Governments know the cost and risk of inaction far outweighs the cost of action. After advice from the Committee on Climate Change, the UK government amended the Climate Change Act and made reaching a target of 'net zero' emissions by 2050 a binding target.



Source: The Committee on Climate Change

# City of Lincoln Council's Climate and Environmental Emergency Declaration

On the 23<sup>rd</sup> of July 2019 CoLC's Full Council unanimously resolved that, This Council;

- Acknowledge the reality of the climate and environmental crises and commits to urgent emergency action.
- Join with Parliament and other Councils in declaring a Climate and Environment Emergency, and commit to the vision of a carbon neutral LINCOLN by 2030 at the latest.
- Sign up to a science based carbon reduction target that is consistent with achieving the Paris Agreement of no more than 1.5oC global temperature increase.
- Call on central government to provide the funding and powers to make this possible, and ask local MPs to lobby government to achieve this.
- Call on Lincolnshire County Council to cooperate with the City and District Councils to enable the City & District Councils to deliver on the carbon neutral vision by 2030, especially in such critical areas as highways & transport, energy, waste, food and health & wellbeing.
- Work with partners in the area to deliver carbon reductions and support environmentally sustainable industry, business & employment.
- Ask the Lincoln Climate Commission to consider ways of involving all interested people to have a voice through a citizens assembly or something that serves this purpose.
- Facilitate the work of a Lincoln Climate Commission to drawn upon expertise in the community (industry, commerce, education, health etc.) and general public, to devise a carbon reduction road map with staged targets and policies consistent with carbon neutrality by 2030, and bring a report to the Council's Executive as soon as practicable.

# Vision 2025 Strategic Plan

## Let's Address the Challenge of Climate Change

Vision 2025 is a five-year plan, based on many conversations we have had with members of the public and our partners. The plan sets out in some detail what we think needs to be done to deal with the most pressing issues we face in Lincoln. Our plans aspire to achieve a dynamic, resilient, inclusive and carbon neutral city, but importantly as well, to have Lincoln as a place of advanced social progress, with a high degree of social cohesion, a city of cultural, generational and ethnic diversity. Having declared a climate emergency in 2019, Vision 2025 places a new focus on this priority as a key element of the council's strategic plan.

A Climate Challenge taskforce has been set up to deliver the following climate aspirations:-

- Let's ensure our development approach reduces our carbon footprint
- Let's set the Lincoln standard for sustainable zero carbon development
- Let's make walking, cycling and the use of public transport the best and favourite way to move around Lincoln
- Let's ensure the city's infrastructure is fully adaptable and resilient to the challenges of climate change
- Let's make our existing housing and business premises energy efficient

The taskforce is made up of officers representing all Directorates and service areas within the council with responsibility for environmental management, business support, property management, air quality, planning policy, communications, procurement and climate change.

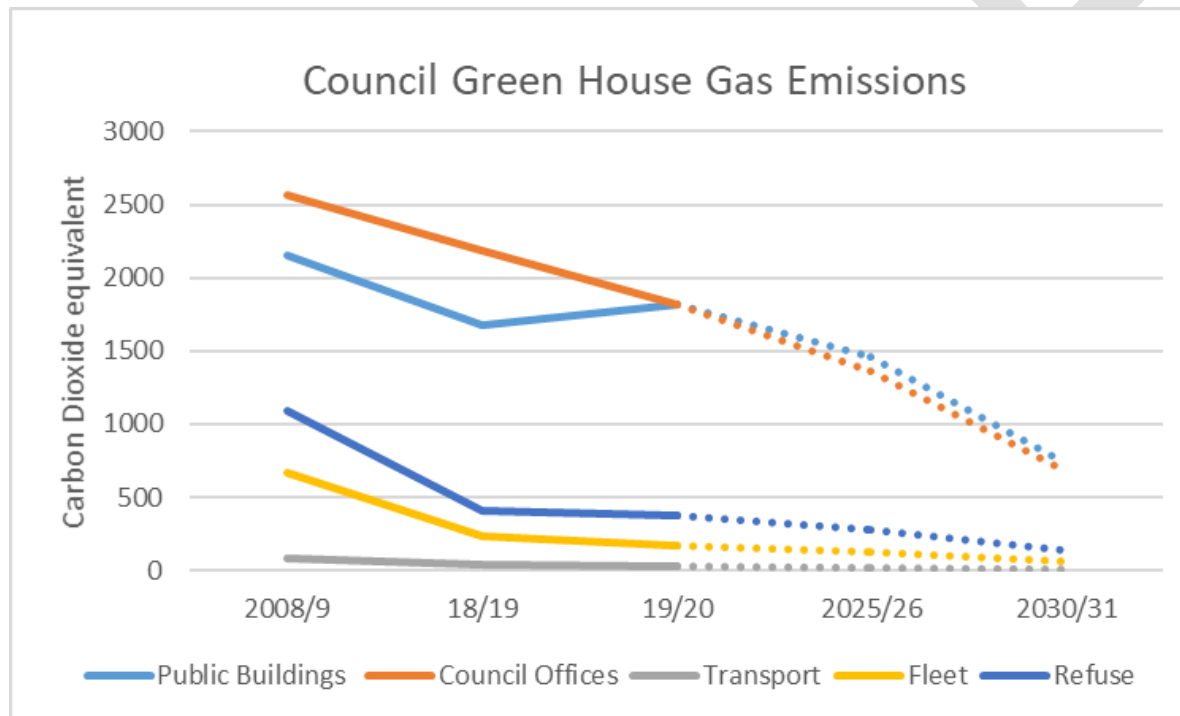
This Decarbonisation Plan sets out how the Council intends to achieve some of its climate aspirations.

[vision-2025-strategic-plan \(lincoln.gov.uk\)](https://lincoln.gov.uk/vision-2025-strategic-plan)

# Building on success

## What we have already achieved

We have a strong track record of delivering emission reductions and financial savings. There have been significant reductions in emissions over time against both the target and business as usual (BAU) scenarios. Since 2008/9 emissions have reduced by 36% and the current reduction trend sets a solid foundation upon which to aim for carbon neutrality.



Green house gas emissions have reduced in all council buildings since 2018/19, except in our public buildings due to a significant increase in gas consumption at the Council's Crematorium between 2018/19 and 2019/20.

The Council's 50 year old Crematorium will undergo a refurbishment in 2022 and will include a range of energy efficiency measures to significantly reduce green house gas emissions.

Some examples of successes we have had in reducing our carbon footprint to date include:

- An Environmental Management System to record monitor and identify opportunities to reduce the council's emissions produced directly or indirectly from gas, electricity, waste, waste and vehicle fuel.
- Replacing some of our IT servers with virtual servers significantly reducing electricity consumption.
- LED lighting and sensor controls in our MSCPs and offices.
- Electric fleet vans and recharge points in six council managed car parks
- Solar thermal and PV projects on seven housing sites and four Council buildings.
- Rainwater harvesting, solar thermal hot water and ground source heat pumps at Yarborough sports pavilion.



**Parking Services Electric Van**



**Photovoltaic Panels on the roof of City Hall**



In 2020 the Council undertook an independent audit of its Environmental Management System. An environmental management system (EMS) is

**"a system and database which integrates procedures and processes for training of personnel, monitoring, summarizing, and reporting of specialized environmental performance information to internal and external stakeholders of a firm".<sup>1</sup>**

Having a recognised EMS accreditation demonstrates a continued environmental commitment to residents, contractors, suppliers, the wider business community and voluntary & community groups. In September 2020 Investors in the Environment announced that the City of Lincoln Council has achieved the Silver level accreditation with a score of 74%.



‘The Investors in the Environment (iE) accreditation consists of organisations working toward high-level criteria and targets, followed by an official auditing process. The objective is to identify how City of Lincoln Council is performing against agreed targets and environmental performance. By qualifying for the accreditation, City of Lincoln Council (CoLC) are demonstrating their organisation’s commitment to minimising its environmental impact and helping to set the standard for the environment.’ (City of Lincoln Council iE Audit. Sept 2020)

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<sup>1</sup> Sroufe, Robert. "Effects of Environmental Management Systems on Environmental Management Practices and Operations." Production and Operations Management. 12-3 (2003): 416–431.

# Carbon Reduction Pathways – What are we doing now?

The Council has set an ambitious target to be net zero carbon in all its buildings operations and services by 2030. In order to achieve this ambition it is necessary to break decarbonisation down into six manageable pathways to identify the key actions required.

Decarbonisation Pathway	What does this cover?	Emissions %
Electricity	This transition is now well underway, with the grid becoming increasingly green as a variety of forms of renewable power are installed (solar, wind, hydro). Energy efficiency is also improving, with the council making substantial investments in energy efficiency throughout its buildings. Low carbon electricity will also play a key area in decarbonising other areas such as heating and transport, placing pressure on supply.	11%
Heat	Decarbonising space and water heating (and cooling) in CoLC's buildings will be part of a wider transition away from a national heating system based on a standardised gas grid. It is very early in this transition but it seems clear that the switch will not be to a single technology, but involve a range of alternatives such as district heating networks, heat pumps, hydrogen and solar thermal to fit local circumstances.	66%
Transport	Direct transport includes all work related travel by CoLC employees, whether in their own, or in CoLC fleet, vehicles or by public transport. This also covers indirect transport such as the refuse fleet vehicles owned and operated by a contractor to deliver a council service.	12%
Waste	This pathway focuses on waste from council offices and depots as well as waste generated by the public at council owned and managed sites such as Hartsholme County Park. Public behaviour has a large impact on the volume and type of waste entering our waste system. Not just at the point of waste disposal, but in consumer choices made prior to this. Waste that is not recycled is converted to energy, at the Energy from Waste facility at North Hykeham.	11%
Built Environment	The Council has some influence on Lincoln's built environment, through the building, renovation, repair and remodelling of over 7000 council homes. The Council is also the Planning Authority for Lincoln and has a joint Central Lincolnshire Local Plan with an ability to influence carbon neutral planning policy.	NA
Natural Environment	There are 47 Local Wildlife Sites, making up 740 hectares and account for 21% of the land in the City of Lincoln administrative boundary. The natural environment plays an important role in decarbonisation, removing emissions from the atmosphere, these negative emissions are crucial to achieving carbon neutrality. In addition, as land owner the council is responsible for substantial carbon stocks already captured, grasslands, wetlands, trees and soil are the main natural carbon stores in the city.	-2%

# Decarbonisation Action Plan 2021-2026

Electricity								
Priority Objective		Year					Outcome	Responsible service area
		2021-22	2022-23	2023-24	2024-25	2025-26		
1.1	Agile Working	Reduce the number of IT Servers					Reduce electricity demand from IT servers and air conditioning.  Estimated CO2 reduction- 27tCO2 pa	IT/Agile Working Group
1.2	Switch to smart electric meters	Upgrade meters					Improve electricity consumption recording and monitoring	Responsible Officers/property Services
1.3	LED lighting and motion sensors in all council buildings.	Ongoing					Estimated CO2 reduction- 4tCO2 pa	Property Services
1.4	Consider a switch to 100% renewable electricity supply	Consider switch in spring 2021					Currently 42% of electricity from the National Grid is produced from renewable sources. Target 2022 to 100% renewable electricity through energy contracts.	Finance/property services

1.5	Consider opportunities for renewable energy generation	Review opportunities for onsite renewable energy generation					Current onsite renewable energy reduces the council's CO2 by 9 tonnes a year	Property Services/Climate Change Manager
1.6	Deliver a staff awareness programme on saving energy.	Ongoing					1% Co2e reduction from electricity or 2tCO2e per annum	Communications/HR/Climate Change Manager

Heat								
Priority Objective		Year					Outcome	Responsible service area
		2021-22	2022-23	2023-24	2024-25	2025-26		
2.1	Crematorium refurbishment	Commence refurbishment	Refurb complete				25% Co2e reduction from heat or 70 tCO2e per annum	Major Developments/Community Services
2.2	Considering carbon-positive and cost-effective solutions at the outset of any refurbishment of public buildings	Identify opportunities as part of the Towns Investment Plan (Subject to funding)					CO2e reduction TBC (nb this will not reduce CoLC's emissions from heat or electricity)	Major Developments/Property Services

2.3	Review electrically heated community buildings to identify alternative low carbon heating and fabric first solutions to reduce energy consumption	Moorland Community Centre feasibility study		Hartsholme CP Masterplan			TBC	Community Services
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Transport – Council's direct and indirect								
Priority Objective		Year					Outcome	Responsible service area
		2021-22	2022-23	2023-24	2024-25	2025-26		
3.1	Agile Working Policy	Policy implemented					Reduce staff journeys and CO2.	Agile working group
3.2	Transition to ultra low emission fleet vehicles	New fleet vehicle Contract			Review Fleet contract		Introduction of 5 ULEVS to the fleet in 2021 resulting in 2% CO2 emission reduction. Increase ULEVs in 2026 lease contract.	Housing Repair Service
3.3	CoLC Staff Travel Plan	Review TP and deliver sustainable travel initiatives	Ongoing	Ongoing	Ongoing	Ongoing	Reduce CO2 emissions from business miles	TP Working group
3.4	Working with Refuse contractor to reduce		Refuse contract				Working with the contractor BIFFA to reduce mileage and CO2	Community Services

	refuse fleet vehicle emissions		extended for 5 years				emissions from the refuse fleet vehicles.	
3.5	Housing Repair Service review of area based council house repair trial	Carry out review of the trial.					Reduce mileage and CO2 emissions from the HRS vehicle fleet.  25% reduction in CO2 expected on 19/20 fuel emissions.	Housing Repair Service.

Transport – City Wide								
Priority Objective		Year					Outcome	Responsible service area
		2021-22	2022-23	2023-24	2024-25	2025-26		
3.6	Ensure Lincoln is Electric Vehicle ready	Install 8 EV charge points for city centre residents	Identify sites for increase provision of resident EV charge points.				Support the Transition to ULEV.  As of June 2020 Lincoln has 43 electric vehicle charging devices (EV chargers) and is in the top 10 in the UK <sup>2</sup>	Parking Services/Climate Change Manager
3.7	Let's make walking, cycling and the use of public transport the best and favourite way	Launch the online Lincoln sustainable toolkit.	Commence sustainable infrastructure routes on WGC site				Promote the existing cycle network in and around Lincoln – Sustainability Toolkit.	Major Developments

<sup>2</sup> [Electric vehicle charging device statistics: July 2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/electric-vehicle-charging-device-statistics-july-2020)

	to move around Lincoln	Work with Lincolnshire County Council to secure funding for cycling infrastructure and secure cycle storage.					Increase the provision of secure cycle storage in the city centre.  18/19 6.7% of people in Lincoln cycle 3 times per week and 5% cycle 5 times per week. <sup>3</sup>	
3.8	Work with our strategic partners on the Lincoln Transport Taskforce to deliver the Lincoln Transport Strategy.	Ongoing					Car sharing scheme  Travel Plans  Car Clubs  Public Transport incentives	Major Developments

Waste - Council Offices								
Priority Objective		Year					Outcome	Responsible service area
		2021-22	2022-23	2023-24	2024-25	2025-26		
4.1	Reuse and recycle all IT were possible.	IT recycling contract in place					Recycle IT equipment Reduce waste	IT

<sup>3</sup> [Walking and cycling statistics, England: 2019 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/walking-and-cycling-statistics-england-2019)

4.2	Expand and promote recycling in offices	Ongoing					Currently 72% of council waste is recycled. Target – Zero Waste	Property Services and Responsible Officers
4.3	Review of Housing Repair Service to identify opportunities to reduce waste materials.	Research and Development group set up to identify the next generation of materials and products within the housing stock.					<p>Reduce and reuse materials, reducing overall waste.</p> <p>Target 100% of household waste materials to be recycled.</p> <p>Identify sustainable household materials to ensure it lasts longer and reduce waste.</p>	Housing Repair Service
4.4	Continue to work with Lincolnshire Waste Partnership to reduce, reuse, recycle household waste	<p>Support the Lincolnshire bulk purchase, discount composting scheme for residents</p> <p>Review waste collection</p>			Trial Separate paper/cardboard collection		<p>Improve the quality of recyclable paper and cardboard.</p> <p>Increase the amount of recyclables collected.</p> <p>Reduce food waste</p> <p>Municipal Household waste recycling varies but latest figure for</p>	Community Services



		following publication of the Gov't Resource and Waste Strategy.					end of quarter 2 (Sept 2020) was 37.4% (composting 20% and recycling materials 17%)	
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The Natural Environment								
Priority Objective		Year					Outcome	Responsible service area
		2021-22	2022-23	2023-24	2024-25	2025-26		
5.1	Maintain and enhance biodiversity, green spaces, woodlands, wetlands in the City.	Ongoing					47 Local Wildlife Sites, making up 740 hectares and account for 21% of the land	Community Services
5.2	City Centre greening Project	Prepare a City Centre greening plan					Improve the quality of green spaces in the city centre.	Climate Change Manager
5.3	Lincoln Tree Charter	<p>Deliver a pilot initiative to introduce native wildlife areas into some of our grass areas on key routes into the city, based on either annual wildflower mixes into open ground, or perennial wildflower mixes into permanent grassland. Review of sites and gras cutting regime underway in Feb 2021</p> <p>Continue the council's 1 for 1 tree replacement policy.</p> <p>Prepare a Tree Strategy</p>					<p>Woodland trust to identify opportunities to increase the number of trees and enhance existing trees in community open spaces.</p> <p>We currently have 6.8% woodland cover within Lincoln Local Authority area.</p>	Community Services

5.4	Boultham Park Restoration Project	Complete restoration of Lake					Improving the water quality of the lake <ul style="list-style-type: none"> <li>• Improvements to the biodiversity of the plants and wildlife</li> <li>• Restoring the lake banks</li> </ul>	Community Services
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Built Environment							
Priority Objective		Year					Responsible service area
		2021-22	2022-23	2023-24	2024-25	2025-26	
6.1	Review the Lincoln Homes Standard to improve the energy performance of Council homes.		Carry out review (following Gov't descent homes standard.)	Deliver Lincoln Homes Standard across all council homes		Raise the standard of all council homes to an average EPC 'C' rating.  2020 Q2 – 40% of homes in Lincoln are well insulated. <sup>4</sup>	Housing Investment Team.
6.2	Deliver new energy efficient, low carbon homes	Homes due to be completed				Achieve a 20% carbon uplift on current Building Regulation requirements.	Housing Strategy / Major Developments

<sup>4</sup> [Live tables on Energy Performance of Buildings Certificates - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

	on Rookery Lane						Includes:- -EV charge points -Sustainable Urban Drainage -Mechanical Heat Recovery.	
6.3	All new Council Homes to be 'zero carbon' ready.	Review opportunities for ensuring the council's new homes are net zero carbon or 'A' rated.	Commence zero carbon ready homes				Raise the standard of all new council homes to an EPC 'A' rating	Housing Strategy / Major Developments
6.4	Consider deep retrofit solutions to raise the EPC of existing Council homes.	Commence trials (subject to funding)					Identify solutions to retrofit 'hard to treat' homes to the net zero standard.  2016 fuel poverty data for Lincoln – 4451 homes (10.6%) <sup>5</sup>	Housing Investment/Climate Change Manager
6.5	Undertake an options appraisal of sheltered	Undertake options appraisal					To improve environmental standards, longevity, future proof and enable low carbon living.	Housing Strategy

<sup>5</sup> [Sub-regional fuel poverty data 2019 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/statistics/sub-regional-fuel-poverty-data-2019)

	housing bedsit schemes							
6.6	Central Lincolnshire Local Plan (CLLP) review	CLLP review underway					Identify city wide zero carbon solutions that can be implemented through the planning system	Planning Policy
6.7	Create and support opportunities for city centre living						Meet the demand for city centre living, reduce commuter travel.	Major Development/ Planning
6.8	Support the upgrade Lincoln's gas distribution network	Network upgrade underway with access to open space sites across the city.				Introduce a 20% hydrogen /natural gas blend	New Gas infrastructure network enabling the introduction of clean, green gas supply to homes and businesses.	Cadent/Community Services
6.9	Sustainable Warmth Strategy		Strategy drafted and agreed				Reduce fuel poverty and raise the standard of private housing	Housing Strategy/Private Sector Housing/ Climate Change Manager
6.10	Continue to work with the Greater Lincolnshire	Complete delivery of Warm Homes grant	Secure Home Upgrade Grant to	Ongoing	Ongoing	Ongoing	Improve the energy efficiency of homes in Lincoln to reduce fuel	Housing Strategy / Climate Change Manager

	Energy Efficiency Network to deliver the Lincs 4 warmer homes scheme and to maximise funding opportunities to improve energy efficiency wherever possible.	Secure Green Homes Grant	retrofit private homes				poverty and Lincoln's CO2 emissions.	
6.11	Sustainable Urban Extensions with infrastructure to support sustainable and smart travel.	Set the Lincoln Standard for net zero affordable homes	Commence WCG development (subject to planning approval)				<p>Phase 1 -300 new with have a renewable heating source and 'A' rated EPC.</p> <p>Target up to 3200 homes with renewable heating and 'A' rated EPC</p>	Major Developments/Planning

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