

CABINET

DATE	01/12/2021
REPORT OF	Councillor Philip Jackson, Leader of the Council
RESPONSIBLE OFFICER	Sharon Wroot, Executive Director Environment, Economy and Resources
SUBJECT	North East Lincolnshire Council Carbon Roadmap
STATUS	OPEN
FORWARD PLAN REF NO.	CB 12/21/06

CONTRIBUTION TO OUR AIMS

The recommendations in this report support the council's outcomes for Investing in Our Future and Economic Recovery and Growth, by ensuring we work towards an equilibrium between economic growth, reduction of carbon and protection of our natural environment. The report further sets out our response to the locally declared climate emergency and the actions required to reach net zero carbon and climate resilience.

EXECUTIVE SUMMARY

This report introduces a proposed Carbon Roadmap and action plan (Appendix A) and public survey report (Appendix B).

The next 20 years will require significant change in how we live our lives and manage our business to transform North East Lincolnshire into a thriving low carbon economy, powered by sustainable energy, where residents live in energy efficient, healthy homes and where it is enjoyable, accessible, and affordable for everyone to travel sustainably every day.

We recognise that the council is part of a larger system of change and needs to work with others to achieve a sustainable future for our place. With limited resources, we must prioritise our actions to have greatest impact. We will do this by considering our strengths as an organisation and sphere of influence, to guide where our resources are best placed.

The report sets out the council's aspiration and strategic action plan to drive local change and encourage all stakeholders in the Borough to work together in achieving the government's target of net zero carbon by 2050. The report further sets out the council's aspiration and action plan to become a net zero organisation by 2040.

RECOMMENDATIONS

Having regard to the public consultation results and the carbon audit completed, it is recommended that Cabinet:

1. Approves and adopts the North East Lincolnshire Council Carbon Roadmap as set out in Appendix A, including formal adoption of the target for the organisation to become carbon neutral by 2040.
2. Notes the results of the public survey report set out in Appendix B.
3. Requests an annual report to be brought back to Cabinet by the Executive Director Environment, Economy and Resources, setting out the progress towards the organisations goal to become carbon neutral by 2040 and for the area of North East Lincolnshire to progress towards the government target of net zero by 2050.

REASONS FOR DECISION

North East Lincolnshire Council (NELC) declared a climate emergency in 2019, confirming its ambition to reduce its carbon emissions to net zero by 2050, while also bringing new jobs to the local area. Following the declaration, the council, supported by our regeneration partner Engie, has undertaken an in-depth review of current policies, procedures and activity, setting out an approach to reduce our own carbon emissions as well as contributing to mitigation work and reduction of carbon emissions across North East Lincolnshire. As part of this work, we have looked closely at government direction such as the 25-year Environment Plan, the 10-point plan for green industrial revolution and the progressing Environment Bill. We have further considered the principles set out in the regional Estuary Plan and the direction provided by both the Yorkshire and Humber Climate Commission and the Lincolnshire authorities

The Carbon Roadmap considers the national picture whilst taking in to account the needs of our local area through consideration of the latest public -survey results and sets out our approach and commitment to become a carbon neutral organisation by 2040 and supports our wider Borough to follow the same path by 2050.

1. BACKGROUND AND ISSUES

- 1.1 With a rich heritage that stretches back to the last ice age, North East Lincolnshire has a diverse environment. It is the fertile environment of North East Lincolnshire and its close connection to the estuary which has enabled the economic and industrial development of the area, leading to economic prosperity in the region over the years. While this has had many positive impacts, it has also led to our area being a high area for emissions causing climate change. The region has the largest cluster of energy-intensive industries in the UK, and with a high proportion of low-lying land our area is vulnerable to flooding from land and sea level rise.
- 1.2 The latest climate predictions suggest that we have 10 years to prevent the worst effects of climate change from becoming irreversible. It is not too late to make changes to the way that we live and reduce the impact of climate change, however we must act now. This will involve a mixture of adapting to climate change, compensating for its worst effects, and sometimes doing things completely differently. There will be changes for all of us – at home, at

work, for our business community, in our leisure time, and out and about in our communities.

- 1.3 The Climate Change Act of 2008 legally commits the UK to reducing greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050. The act requires the Government to set legally binding carbon budgets; these act as steppingstones towards the 2050 target. We are now on the sixth UK carbon budget, and this was built into law in 2021. It says that the UK will cut carbon emissions by 78% by 2035, compared to 1990 levels.
- 1.4 The Government has introduced policies such as the 25-year Environment Plan, an Energy White Paper and a Ten-point Plan for a Green Industrial Revolution, to guide decisions. A new Environment Act is expected in 2022, which will cover air pollution, waste reduction, the restoration of natural habitats and the management of water resources in a changing climate.
- 1.5 North East Lincolnshire Council's priorities are clear: to invest in a green future and deliver economic recovery and growth. In 2019 a climate emergency was declared where North East Lincolnshire Council (NELC) confirmed its ambition to reduce its carbon emissions to net zero by 2050, while also bringing new jobs to the local area. To achieve this, we need to work with partners in the public and private sectors, the voluntary and community sector, and with individuals, families and communities. We must address the issues we face with creativity and innovation if we are to secure the outcomes we desire.
- 1.6 Following the climate emergency declaration the council, supported by our regeneration partner Engie, has undertaken an in-depth review of current policies, procedures and activities. The review has identified our current carbon impact, the wider emissions in our Borough and set out an approach to identify opportunities to reduce our own carbon emissions as well as contribute to mitigation work and reduction of carbon emissions across North East Lincolnshire.
- 1.7 This work has highlighted the opportunity for the council to become a carbon neutral organisation by 2040 by focusing delivery on six carbon reduction workstreams:
 - Low carbon estate (our buildings).
 - Low carbon fleet (our vehicles).
 - Low carbon street lighting.
 - Climate-conscious decision-making.
 - Climate-conscious purchasing (goods and services).
 - Climate conscious behaviours (of our staff and those who work for us).
- 1.8 The work has further highlighted that only 0.5% of carbon emissions in North East Lincolnshire are the result of activities within our control. We recognise that we are part of a larger system of change and need to work with others to achieve a sustainable future for our place and reduce emissions across our area.
- 1.9 With limited resources, we must prioritise our actions to have greatest impact.

We will do this by considering our strengths as an organisation and our sphere of influence, to guide where our resources are best placed. We have therefore produced a North East Lincolnshire (NEL) net zero Carbon Roadmap to identify actions that can be taken by the council to help drive emissions reductions within NEL. Alongside the six workstreams for our own organisation identified in 1.8 above, we have added a further six workstreams where we feel we can drive change and encourage all stakeholders in the area to work together in achieving the 2050 net zero carbon target set by the government:

- Climate-conscious community: by facilitating and encouraging community engagement and sustainability actions.
- Low carbon commercial buildings: working as an enabler to ensure sufficient support is in place for businesses to increase sustainability.
- Low carbon transport: through policy change, network investment and partnership working we want to enable a local transition to more sustainable travel.
- Low carbon industry: by supporting our partners and industry in achieving industrial decarbonisation, including carbon capture and hydrogen economy.
- Enable low carbon new homes-through our role as a policy maker and planning authority.
- Climate-conscious improvements to older homes, by supporting our partners and residents to improve their homes to become more sustainable.

1.10 To ensure progress towards our goal of achieving net zero carbon neutrality, it is essential that council actions are monitored, reported on, and scrutinised and updates provided to key stakeholders on a regular basis.

2. RISKS AND OPPORTUNITIES

2.1 Adoption of the new Roadmap formalises the council's approach to addressing the climate emergency and will inform operational practices and future decisions across the council.

2.2 The Environment Act will place new statutory requirements on local authorities to protect and enhance their local environment. This Roadmap sets out the strategic direction to fulfil these requirements and aligns climate action with our other strategic aims such as our Economic Strategy, our Air Quality Strategy, and our Waste and Resource Strategy, to ensure consistency across all services.

2.3 Our Equalities Impact Assessment has highlighted that we need to ensure that information about climate change and carbon reduction is suitable for a wide range of audiences. We also need to be mindful that climate change is likely to impact unequally across our population. Issues relating to deprivation will be important to consider when assessing adaptations to climate change and introducing lower carbon solutions.

3. OTHER OPTIONS CONSIDERED

3.1 Options as to how to best deliver improvement to our carbon impact have been considered and subject to advice to technical deliverability and economic feasibility as the Roadmap has been developed. Feedback from partners, related services and residents have been taken into account in development of the Roadmap.

3.2 The option of no action has been considered but would prevent the council from delivering on its strategic priorities of Investing in our Future and Economic Recovery and Growth. No action would further result in a failure to deliver to government target and statutory requirements.

4. REPUTATION AND COMMUNICATIONS CONSIDERATIONS

4.1 The implementation of this Roadmap will support the council's relationships with individuals, communities and partner organisations and demonstrate our commitment to work together to meet our shared aims of a sustainable future.

4.2. Public consultation on the strategic aims and delivery focus has been completed and return an overwhelming support for local climate and environmental action.

5. FINANCIAL CONSIDERATIONS

5.1 Approval of the Roadmap supports the council's Financial Strategy by aligning resources to local priorities.

5.2 There are no immediate revenue implications for approving this Roadmap, but implementation will require changes in working practices across the council and financial impact will be considered in detail for each decision taken.

5.3 To improve energy efficiency of council assets will require substantial capital investment. By planning our actions over a long time scales we have greater opportunities to integrate such improvements with scheduled regular maintenance to reduce costs. Improvements in energy efficiency also has the potential to deliver future utility cost savings to offset some of the investment costs.

5.4 By setting out our strategic aspiration for environmental action, we will enhance our opportunities to secure grant assistance or other external funding to assist with the transition to a net zero future.

6. CLIMATE CHANGE AND ENVIRONMENTAL IMPLICATIONS

The Roadmap underpins the council's environmental priorities by:

- Working towards a low carbon North East Lincolnshire that is prepared for, and resilient to, the impacts of climate change.
- Recognising and realising the economic, social and health benefits of a high quality environment.

- Leading North East Lincolnshire towards consuming resources more efficiently, eliminating waste and supporting and developing the green economy and infrastructure

7. CONSULTATION WITH SCRUTINY

The proposals for the new Roadmap and for surveying public opinion has been presented to Economy and Communities Scrutiny Panels throughout development.

8. FINANCIAL IMPLICATIONS

There are no direct financial implications as a result of this report. Any future additional investment requests will be subject to approval of an appropriate business case.

9. LEGAL IMPLICATIONS

There are no direct legal implications arising. The above report captures the applicable statutory framework.

10. HUMAN RESOURCES IMPLICATIONS

There are no direct HR implications contained within this report

11. WARD IMPLICATIONS

The Roadmap set out in this report will impact on all wards in the Borough

12. BACKGROUND PAPERS

Previous briefing paper to the Economy Scrutiny Panel in July 2021:
<https://democracy.nelincs.gov.uk/wp-content/uploads/2021/05/10.-Briefing-paper-Economy-Scrutiny-Panel-Carbon-Roadmap.pdf>

13. CONTACT OFFICER(S)

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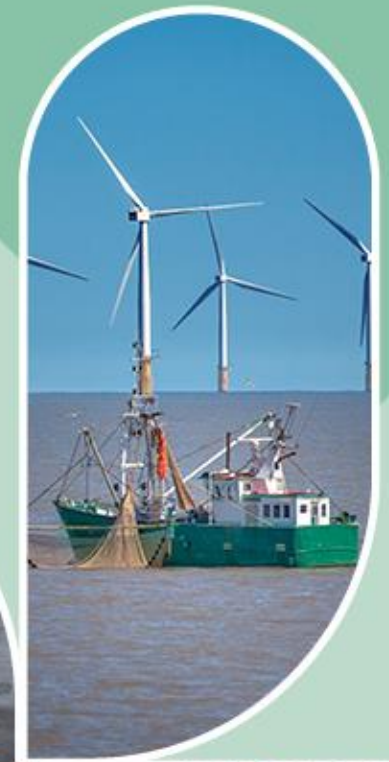
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COUNCILLOR PHILIP JACKSON
LEADER OF THE COUNCIL

North East Lincolnshire Council

Net Zero Carbon Roadmap

2021



North East Lincolnshire Council

Carbon Roadmap

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The purpose of this Plan

North East Lincolnshire Council is concerned about the damage that is being done to our planet from the increasing release of 'greenhouse gases', that trap heat around the earth. This comes mostly from the use of oil, coal, and natural gas, when they are used as fuel for transport, heating, power generation, and in the making of products and providing services that we all use. The main greenhouse gas that is the subject of this plan is carbon dioxide (CO₂), which we will just call 'carbon' here.

In North East Lincolnshire we have higher than average carbon emissions; this is mainly due to the industrial processes that are based here. We are also vulnerable to sea level rise and extreme weather at sea, causing high winds and tidal surges. These give us extra reasons to focus our attention on actions that help with a transition to a low carbon economy, whilst supporting and protecting growth, employment, and wellbeing.

There has always been natural change in the earth's temperature, but the dramatic increase over a short period of time has now been scientifically proven to be a result of human activity. The rise in temperature on earth, caused by these emissions, has led to the melting of ice at the earth's poles and global sea level rise. The impacts on our planet's climate that these emissions are having is also bringing about changes to our weather patterns, with more periods of intense heat, drought, and heavy rainfall leading to floods. It is affecting nature as many plant and animal species are unable to adapt. For people there are health issues, like food shortages, loss of homes and difficulties coping with extremes of heat, wind, and rain.

The latest climate predictions suggest that we have 10 years to prevent the worst effects of climate change from becoming irreversible. It is not too late to make changes to the way that we live and reduce the impact of climate change, however we must act now. This will involve a mixture of adapting to climate change, compensating for its worst effects, and sometimes doing things completely differently. There will be changes for all of us – at home, at work, in our leisure time, and out and about in our communities. People all over the world are having to think about this and act now.

We know that prevention and protection from climate change is a concern shared by our residents, with 84% of the respondents signalling their concern in a recent public survey. At North East Lincolnshire Council, we care about our environment and want to protect our residents from threats to future prosperity and health and wellbeing. We want to play our part in helping to solve the crisis that our planet faces, and we have already worked for many years to reduce our organisation's carbon emissions. We also recognise that we are part of a larger system of change and need to work with others to achieve a sustainable future for our place.

In October 2019 we declared a climate emergency. Since then, we have worked with our partner Engie to look at what more we need to do to meet a target of reducing our carbon emissions in our own organisation to carbon net zero by 2040. Whilst supporting our area to reach the government's target of carbon net zero by 2050. We know that it will be impossible to reduce all our carbon emissions completely. Net zero means we will reduce these emissions

as much as possible by balancing any carbon emissions that are left through investing in programmes that increase carbon storage, such as planting more trees or artificial storage solutions.

This plan sets out the work that we have already started to reduce our own carbon emissions, what more we plan to do, and how we can help others. We have prioritised our actions to use our resources to achieve the greatest impact, by considering our strengths as an organisation and sphere of influence. This plan sets out six workstreams for our own organisation, and then six more where we can act to support the communities and businesses in North East Lincolnshire.

Global and national context

Global efforts

Scientific evidence shows that human activity is causing our planet to warm at an alarming rate. This is causing the devastating impacts of climate change on our food supply, national security, global health, extreme weather, and more. We need urgent and ambitious action at every level, from heads of state submitting increased national commitments, private businesses addressing climate change at every step of providing goods and services, and individual citizens using their unique influence to drive change and make an impact.

Tackling climate change is part of the United Nations' global effort on 'sustainable development', which means living within the capacity of our planet to support us. United Nations' member states are working towards 17 sustainable development goals, which will help bring about reduced poverty, better education, improved health, as well as cleaner air, rivers, and seas. Acting on climate change will carry many benefits across the globe. This diagram shows the 17 sustainable development goals.



In 2015, many countries across the world, including the United Kingdom, signed the Paris Climate Agreement. The goal of this agreement is to limit global warming to between 1.5 and 2 degrees Celsius (°C), compared to pre-industrial levels. This binding agreement was the first time that the world's nations have been brought together in a common cause to undertake ambitious efforts to combat climate change. Progress is already being made, with reductions in the use of fossil fuels and new technologies are being developed, which are bringing about a new 'green economy'. This is proving to be good for both the environment and for people, with new jobs being created.

Each nation has its own 'carbon budget' to work towards and must report back on progress. Together we would have to cut global carbon emissions by 45% in the next ten years to be able to keep the warming of our planet to below 1.5 °C.

National efforts

The Climate Change Act of 2008 legally commits the UK to reducing greenhouse gas emissions by at least 100% of 1990 levels (net zero) by 2050. The act requires the Government to set legally binding carbon budgets, these act as steppingstones towards the 2050 target. We are now on the sixth UK carbon budget, and this was built into law in 2021. It says that the UK will cut carbon emissions by 78% by 2035, compared to 1990 levels.

The Government has introduced policies such as the 25-year Environment Plan, an energy plan and a ten-point plan for a green industrial revolution, to guide decisions. A new Environment Act is expected in 2022. This will cover air pollution, waste reduction, the restoration of natural habitats and the management of water resources in a changing climate.

Developing our own plan

The actions taken by organisations and individuals in North East Lincolnshire are already making a direct contribution towards the UK achieving its carbon budget and contributing to the efforts made across the world to reduce carbon. Since 2016 we have had a specific focus on energy, through a programme of activities that have helped us to reduce our emissions and help others to do the same. Whilst we have done well to cut our carbon emissions through delivering these activities, including putting energy measures into public buildings, supporting local businesses with grant funding, solar projects, we now need to take further steps towards achieving net zero. This plan represents our own analysis of what actions we now need to take.

Climate emergency declaration

In September 2019, a climate emergency was declared in North East Lincolnshire. As a council we confirmed our ambition to reduce our own carbon emissions to net zero by 2050, while bringing new jobs to the local area. Elected members have pledged to consider the environmental effects of all future decisions, to help make our area a low carbon borough, and mitigate the effects of climate change.

Our research on climate change

Following the climate emergency declaration, we have been supported by our regeneration partner Engie to undertake an in-depth review of current policies, procedures, and activity. The purpose of this was to propose an approach to identify further opportunities to reduce our own carbon emissions, as well as contribute to mitigation work and reduction of carbon emissions across North East Lincolnshire. As part of this work, we have looked closely at the government's direction, such as the 25-year Environment Plan, the 10-point plan for green industrial revolution and the progressing Environment Bill. We have considered the principles set out in the regional Estuary Plan, the Humber Industrial Decarbonisation Plan and the direction provided by our neighbours through the Yorkshire and Humber Climate Commission and the Lincolnshire councils. We have also used the results of surveys from our community to understand what local views are.

The work has resulted in this plan, that covers our own internal activities and how we can enable and inspire activity in the wider borough. This work is also being followed up with a Natural Assets Plan, which will incorporate actions to address the ecological impact of climate change and longer-term threats to biodiversity.

Our Place vision for the environment

All the main partner organisations across North East Lincolnshire have for years shared a single place-based vision for the area. This has been very helpful in focusing on the things we all need to do. To make this simple we have five 'outcomes,' which are statements about how we see our local area being in the future. One of our outcomes sets out our aspiration for a green future for our place, 'All people in North East Lincolnshire benefit from a green economy and high-quality environment'. This is backed up by the following statement:

"We want North East Lincolnshire to be a thriving low carbon economy powered by sustainable energy. A circular economy, where businesses and residents reject the throw-away society, instead reducing, re-using, and recycling. A place where residents live in energy efficient, healthy homes and where it is enjoyable, accessible, and affordable for everyone to travel sustainably every day. A nature rich place, where wildlife abounds, and everyone has access to clean air and inspiring green and open spaces to protect health and enhance lives, with evidence of sustainable ecology, environment and food systems"

We have set the following ambitions:



There are multiple benefits that reducing carbon emissions will bring. Here are some examples.

Green Recovery

Because of Covid-19 it is likely that the jobs market will see large challenges. However, green recovery presents a huge opportunity to reset the economy and redirect it towards a better, more sustainable future of high skilled job opportunities. Fostering the right conditions to support the creation of new jobs that support the climate change agenda will help our area build back better and achieve its carbon reduction aspirations.

Health and Wellbeing

Tackling climate change and reducing carbon emissions will add value beyond these goals alone. The actions developed as part of this roadmap will encourage residents to live sustainable lifestyles through things like active travel, waste reduction, and other actions that will improve the quality of life. We will also seek to work with local community groups and provide increased access and connection to nature and encourage a healthy, sustainable lifestyle.

Affordable Energy

In 2019, 16.7% of households in our area were in fuel poverty, which is above average for England. Economic impacts in the wake of Covid-19 hold the potential to worsen existing poverty and deprivation in communities. Actions around reducing carbon, such as lobbying for funding to improve energy efficiency in domestic housing and using existing partnerships to carry out the work required, will have multiple benefits. Not only will housing stock be decarbonised, but fuel bills will be reduced (helping alleviate fuel poverty) and people's physical and mental wellbeing will also benefit.

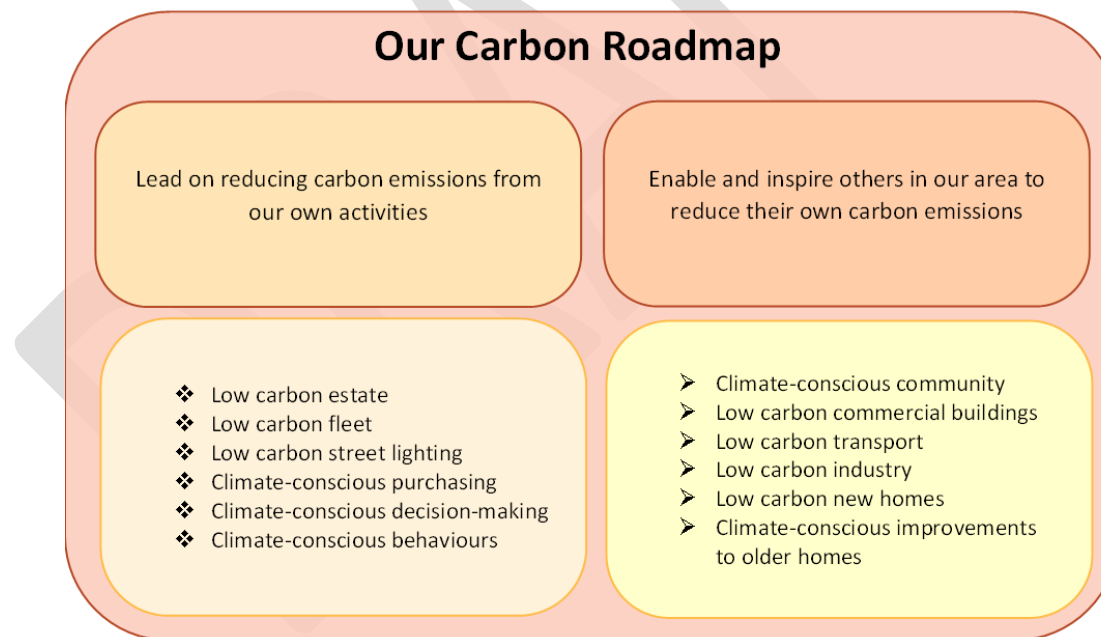
Air Quality & Biodiversity

Climate change and air quality are closely linked; encouraging the uptake of electric vehicles will reduce emissions from cars. We have already made the switch to electric vehicles for part of our fleet and are continuing with this change, as well as encouraging greener forms of transport in the wider population. We are also taking action to support wider biodiversity and recognise the role that natural environment must play in capturing and storing carbon in trees, hedges, grassland, wetland, and saltmarsh.

Sustainable Communities

Working to reduce carbon emissions should be considered in the context of 'placemaking'. Actions should seek to follow the aspiration set out in the area's Local Plan. The Local Plan is a plan for growth and aims to ensure North East Lincolnshire becomes a sustainable location in which people can live, work, and enjoy their recreation, both now and in the future. Where possible, actions can be taken in local communities and in conjunction with local community groups to create a sense of place and have positive impacts on not only carbon emissions, but factors like congestion, pollutants, and improved community cohesion.

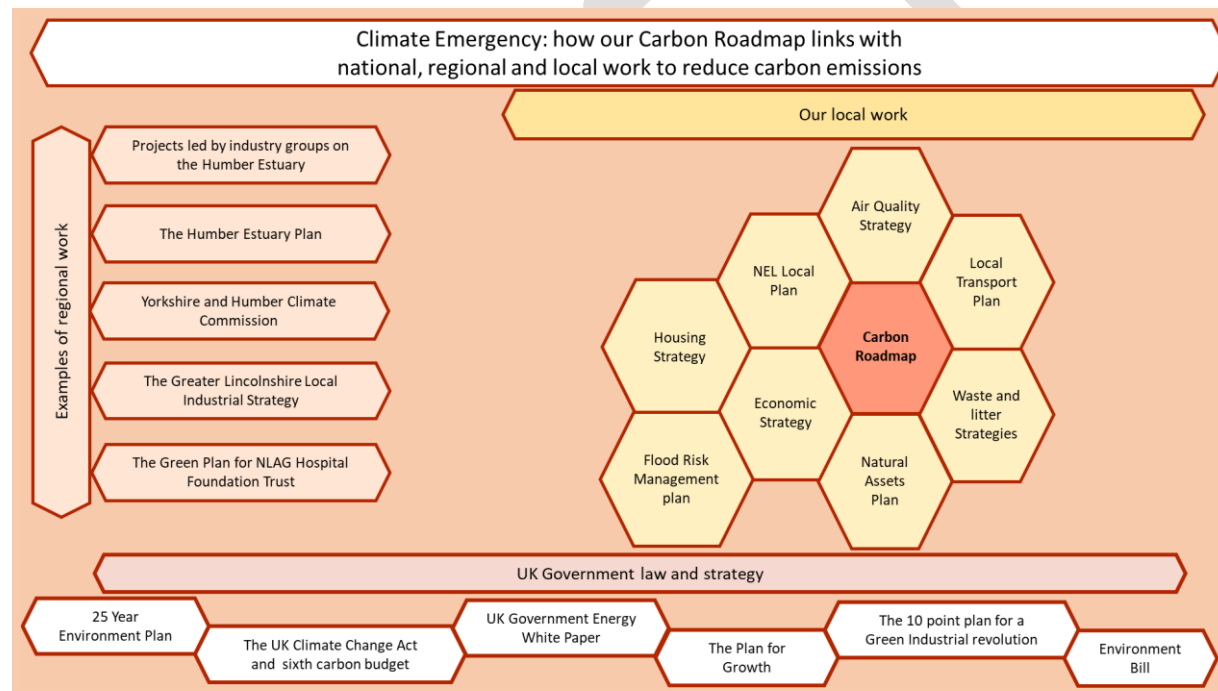
Our ambition is a big one and we have broken our work down into twelve areas. This diagram shows the six work areas that we will focus on to reduce carbon emissions from our own activities, and an additional six work areas where we feel we can enable and inspire others to reduce their own carbon emissions.



In this global emergency each person, organisation, and community can act in many ways. We are considering our strengths as an organisation and how we can enable and inspire others, to guide where our resources are best placed to have the maximum impact. Our ambition is to drive change and encourage all stakeholders in our area to work together in achieving the 2050 net zero carbon area target.

Links between our strategies

Reducing carbon emissions is the most important environmental action that we can take to reduce climate change, but there are other important activities. This roadmap is part of a group of plans that cover our environmental responsibilities in our area. They work together to protect and enhance our environment, reducing the impacts of climate change. We are fortunate to have many regional partners who are also working hard to reduce carbon emissions and their impacts.



This diagram shows national, regional, and local work that is being undertaken on environmental matters, that supports the delivery of this Roadmap. Please see the end of this Plan for an explanation of some of the items featured here.

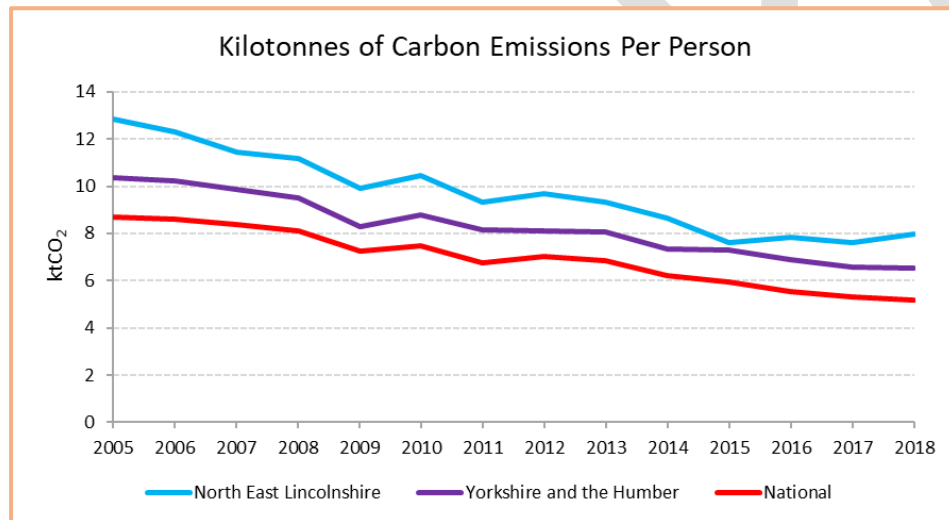
What is the current carbon situation in North East Lincolnshire?

For everyone to plan to become carbon net zero, we need to know what emissions are taking place now, so that we can calculate changes over time and see if our plans are working as we expect them to. There is an internationally agreed way of doing this, called the 'Publicly Available Specification 2060', or PAS 2060. The work for this Carbon Roadmap meets that standard.

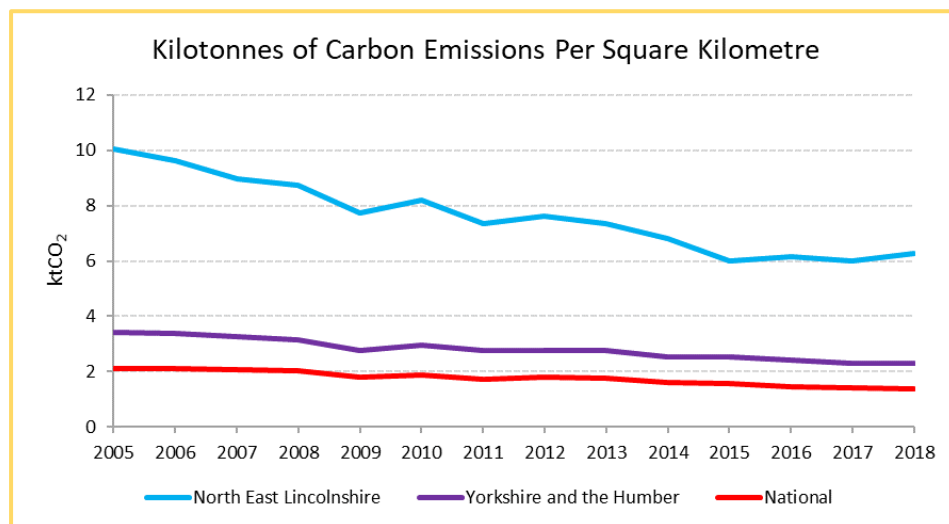
The 2018 national emissions data (selected as our baseline) has been analysed to identify key emissions sources in North East Lincolnshire. The four largest emissions sources are:

1. Large industrial installations (26%)
2. Industrial and commercial gas (23%)
3. Domestic properties (17% - gas and electric)
4. Transport (17%). Transport emissions are made up of three main vehicle types: Petrol cars (36%), diesel cars (36%) and heavy and large goods vehicles (31%).

It is useful to be able to compare emissions from one area to another. We can do this in two ways; by looking at the tonnes of CO₂ emitted per person in an area, and by looking at the tonnes of CO₂ emitted per unit of land area, in this case square kilometres. The two charts below show the situation in North East Lincolnshire compared to the Yorkshire and Humber region and the UK. The comparison shows a higher rate of emissions in North East Lincolnshire, and this is mainly due to the industrial processes situated here and higher levels of gas and electricity use.



This chart shows that for carbon emissions per person in our area these were 7.95 Kilotonnes in 2018, compared to 6.53 Kilotonnes in the Yorkshire and Humber region and 5.19 Kilotonnes for the UK.

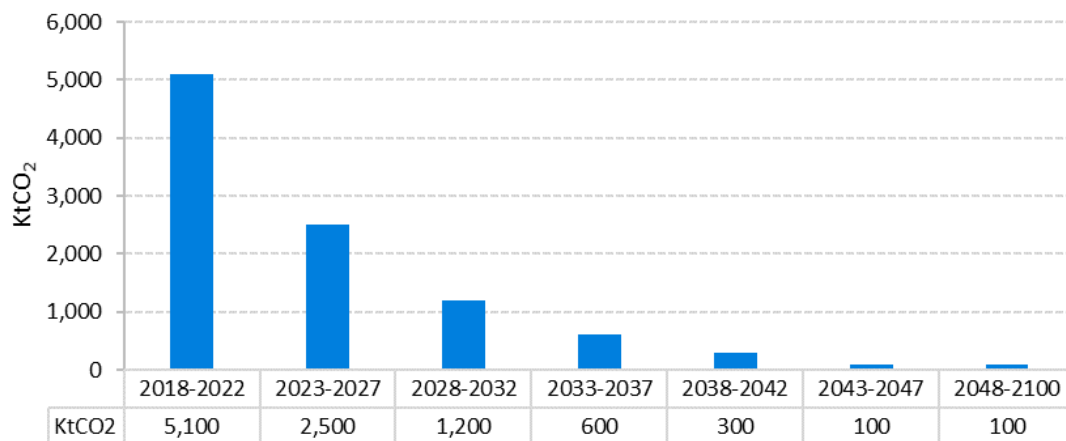


This chart shows carbon emissions in relation to land area, North East Lincolnshire in 2018 had 6.27 Kilotonnes per square kilometre (km²), for Yorkshire and Humber region it was 2.30 Kilotonnes and for the UK it was 1.39 Kilotonnes.

For homes in North East Lincolnshire, an analysis of the Energy Performance Certificates (EPC) of 51,000 properties shows how each home is rated in terms of energy efficiency, on a scale where A is the best and G is the worst. 72% fall into the lower efficiency categories of being rated D to G. A similar study of 1,400 non-domestic properties Display Energy Certificates (DECs) shows that 64% are rated D-G. These figures indicate that there is considerable scope for improvement in both categories.

The Paris Agreement's global temperature target of "well below 2°C and pursuing 1.5°C" has been translated into a national UK carbon budget. Analysis has been carried out for each UK local authority area to determine contribution towards this budget. North East Lincolnshire's target is to emit no more than 9,900 Kilotonnes of carbon dioxide between 2018 and 2100. Progress has already been made in reducing emissions, with emissions in 2018 being 37.6% lower than 2005 levels. This equates to a 3.4% reduction year-on-year. While this is good progress, it is not enough; at this level of annual reduction North East Lincolnshire's carbon budget would be exceeded by 2026.

Recommended Carbon Budget for North East Lincolnshire



This chart shows the recommended carbon budget for North East Lincolnshire from 2018 to 2100 is 9,900 Kilotonnes of CO₂. From 2018-2022 we can emit a maximum of 5,100 Kilotonnes in total, and then this drops gradually so that from 2043 to 2100 we are only supposed to emit 200 Kilotonnes in total.

What about the carbon emissions from our own organisation?

Our work generates carbon emissions, just like many other organisations. It accounts for about 0.5% of all the carbon emissions in North East Lincolnshire. Our total baseline carbon emissions for our organisation in 2019 were 6,511 tonnes of carbon dioxide equivalent (tCO₂e). This does not consider the change made to our electricity supply in April 2020, when we started to purchase 100% of our electricity from renewable generation. Our net zero target requires us to balance this amount of carbon released with an equivalent amount of carbon that is avoided, reduced, substituted and/or offset by the end of 2040. By offsetting we mean finding ways to compensate for any small amount of carbon we still emit, through actions like tree planting. We also want to investigate what we can do in the longer term to move into a negative carbon position, by removing more carbon than we generate.

We have split our carbon emissions into three scopes, as defined by the World Resources Institute's Greenhouse Gas (GHG) Protocol. In our action plan we aim to set out what we need to do to address each of these categories.

Scope 1 – 41% of our emissions, or 2,638 tCO₂e These are all direct emissions from our own activities or from activities that are under our sphere of control. Examples include emissions from our own fleet of vehicles (53% of the total scope 1) and gas and oil used on our sites and in our buildings. Almost a quarter of natural gas use is in our own offices. Other large natural gas consumers include the Grimsby Crematorium, business centres and children's centres.

Scope 2: - 40% of our emissions, or 2,610 tCO₂e. These are all our indirect emissions and originate from the fuels we purchase for our own use. This is mainly the emissions from the electricity that we buy. Our largest consumer of electricity is street lighting. Business centres and offices are the next largest users. We have a small number of sites that generate electricity using solar power export a small amount of electricity to the grid.

Scope 3 – 19% of our emissions, or 1,263 tCO₂e. These are any other indirect emissions, occurring from sources that we do not own or control. Examples include business travel (called 'grey fleet'), emissions from goods that we purchase, and waste disposal. It also includes the emissions that are generated by water supply, and the extraction, processing and transport and losses of water and fuels, known as 'well-to-tank' emissions (WTT).

To give a baseline amount of carbon being emitted, historic energy and water data was gathered for each building/supply for the year from January to December 2019. From this data, 2019 baseline emissions were calculated using the Department for Business, Energy & Industrial Strategy's (BEIS) 2020 greenhouse gas reporting conversion factors. Our council 2019 baseline emissions were 6,511 tonnes of carbon dioxide equivalent (tCO₂e). This has helped us to understand where most emissions happen, so we know where we need to focus our actions.

Transport

Our fleet and recorded business mileage account for 28.7% of total emissions, with 26.6% of total emissions from the fleet alone. A large proportion of our fleet is currently made up of diesel vehicles. We have already started our journey to electrify smaller vehicles, but with more technologies now available there are more opportunities to expand this into all the fleet, including larger vehicles. There is the opportunity for us to demonstrate and encourage the use of electric vehicles within North East Lincolnshire. The greening of modes of transport can also be linked to renewable generation projects, such as solar carports and EV charge points at business centres and our offices.

Electrical consumption

Electrical consumption from street lighting, traffic equipment, seasonal lighting, and other electrical supplies and equipment makes up 20.8% of our carbon footprint and 40.9% of electricity kWh used. Since April 2020 we have purchased electricity that has a guarantee of its origin being from renewable generation, so our carbon footprint from electricity will have reduced significantly from our 2019 baseline. The majority of our electricity use is in our street lighting. We manage approximately 19,000 lampposts and nearly 3,500 illuminated traffic signs and bollards. Since September 2017, we have been upgrading street lighting to Light Emitting Diode (LED) bulbs. There may be an opportunity for further efficiencies through smart control of lighting. Street lighting has the potential to make up a fifth of our carbon footprint, if not using a renewables-sourced supply, and still generates a significant cost.

Offices and business centres

Our office buildings have good potential for energy efficiency savings, as well as green power and thermal options. We have already been carrying out some works in decarbonising these buildings. During Covid-19 recovery, understanding future use of buildings and ensuring that appropriate green options are

considered is important for the next stages of the zero-carbon roadmap development. Our business centres have good potential for both savings and green generation options too.

Emissions from waste

Carbon emissions from domestic waste do not form part of our carbon footprint, as they are outside of our direct control. The exception is the transport emissions associated with waste collection and disposal. Understanding the destinations of waste is important as landfill, recycling, reuse, composting and generating energy from waste all generate carbon emissions. It is estimated that in 2019 1,970 tCO₂e was emitted by these waste streams. Waste going to landfill has dropped significantly in recent years, but this end destination still accounts for 31% of emissions from waste. There are many factors that can assist with reducing these emissions further in the future, including increasing rates of recycling, changes to packaging materials and the separate collection of food waste. These aspirations all form part of our Waste and Resource Strategy.

How will we achieve carbon net zero for our organisation?

It is important that we understand current emissions, how they might change in future years if no action were taken, and what this means in terms of climate budgets. This will all help to frame the need for achieving net zero carbon. Considering that 0.5% of carbon emissions in North East Lincolnshire comes from our activities, this means that our share of the carbon budget up to 2100 would be 39,183 tCO₂e. If we took no action, and assuming the UK's electricity grid continues to decarbonise in line with the Government's latest energy and emissions projections, our own carbon budget will be exceeded by 2029. Even with REGO (Renewable Energy Guarantees of Origin) purchased electricity, our own carbon budget would be exceeded by 2035.

To help drive carbon reductions a wide range of actions from many people will be required. In determining appropriate actions for us to take we will first seek to avoid emissions, then reduce, substitute, and finally compensate for any remaining emissions.

Avoid: We need our workforce to improve their understanding of carbon emissions, through building management, travel and equipment use. We may no longer need some of our buildings and could be able to change the way we deliver some of our services.

Reduce: Seek opportunities for real and relative reductions in emissions. This might involve using technology to manage energy use.

Substitute: Adopt and enable renewables and low carbon technologies on sites and in transport. Purchase goods and services with lower emissions.

Compensate: Where we find hard-to-change emissions we will need to invest in good quality offsetting projects to help us to cover the balance. We will focus on local schemes, wherever possible, to provide the best possible value for our community.

To achieve carbon net zero as an organisation, we will focus on six workstreams, with the aim of achieving carbon net zero for our organisation by 2040:

1. Low carbon estate (our buildings)
2. Low carbon fleet (our vehicles)
3. Low carbon street lighting
4. Climate-conscious decision-making
5. Climate-conscious purchasing (goods and services)
6. Climate conscious behaviours (of our staff and those who work for us)

In addition to that as part of the wider North East Lincolnshire green agenda we have committed to a further six workstreams, to help our area achieve carbon net zero by 2050:

7. Climate-conscious community: by facilitating and encouraging community engagement and sustainability actions.
8. Low carbon commercial buildings: working as an enabler to ensure sufficient support is in place for businesses to increase sustainability.
9. Low carbon transport: through policy change, network investment and partnership working we want to enable a local transition to more sustainable travel.
10. Low carbon industry: by supporting our partners and industry in achieving industrial decarbonisation, including carbon capture and hydrogen economy.
11. Enable low carbon new homes-through our role as a policy maker and planning authority.
12. Climate-conscious improvements to older homes, by supporting our partners and residents to improve their homes to become more sustainable.

Each of these 12 workstreams has an outline plan, set out in the rest of this document. By necessity plans for the short term are more fully formed than for the medium and long term; however, the plans will be frequently updated as we recognise that this is a fast-developing area of work, with new evidence, ideas and priorities emerging. Many of the actions are dependent on finding funding, using the best expertise, and working across a variety of different organisations to make them work.

Each person in North East Lincolnshire can also contribute. The more people that work together the more successful we will all be and there will be benefits for everyone.

Workstream 1: Low carbon estate (our own buildings)	
Our current position	<p>Our 2019 baseline emissions from buildings were 3,374 tCO₂e.</p> <p>We have installed energy conservation measures in 22 of our buildings through the Smart Energy Greater Lincolnshire project.</p> <p>Eight of our buildings have generate electricity from solar power.</p> <p>We have energy dashboards for some of our buildings, that all staff can see and monitor.</p> <p>Since April 2020 we have purchased 100% of our electricity from renewable sources.</p> <p>Our 2021 public survey found that 97% of respondents supported making public buildings energy efficient.</p>
Challenges and opportunities	<p>We do not have the funding to make all the changes we need, and future government funding regimes are not known.</p> <p>When external funding opportunities appear, there are tight timescales for bidding and for implementation, so we need to be well-prepared.</p> <p>We have a good understanding of our buildings and their carbon emissions, and we have several projects already being worked on, including a heat decarbonisation plan.</p> <p>Historic buildings, for example our town halls, are unlikely to get to zero carbon use, so some other buildings will need to compensate for them by going further.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ All our own buildings move towards being operated as carbon net zero. ✓ Building managers and occupiers understand the importance of achieving carbon net zero and reducing energy usage. ✓ We seek to offset emissions where we have heritage buildings, for which carbon net zero solutions are problematic and cannot be eliminated.
Our outline plans	
Short term 2022- 2025	<p>Use energy dashboards to set the normal and target use for each building and explore funding to extend this programme.</p> <p>Develop dashboards further to show renewable generation.</p> <p>Review the monitoring and analysis regime for building emissions and build a carbon calculator that operates across all emissions.</p> <p>Get ahead of timescales and have some projects ready in case there are opportunities to bid for funds.</p> <p>Review our Corporate Asset Management Plan to make sure it aligns with this Carbon Roadmap.</p> <p>Identify opportunities following the development of a heat decarbonisation plan.</p> <p>Explore heat network and micro-grid opportunities.</p> <p>Complete the rationalisation of our central depot, which will incorporate many carbon reduction features.</p> <p>Link in our work on the Lincolnshire and the local One Public Estate Groups to our carbon net zero ambitions.</p>

Workstream 1: Low carbon estate (our own buildings)

(Continued from previous page)

Medium term 2026-2030	<p>Ongoing review of options based on changing technology, to create plans for decarbonisation of heating/cooling in our remaining buildings.</p> <p>Agree an approach for reducing carbon emissions in our let/leased properties.</p> <p>Explore options of energy generation on our land to offset energy use.</p> <p>Develop renewable energy generation projects linked to electric vehicle charging.</p>
Long term 2031-2040	<p>Complete building decarbonisation programme.</p> <p>Develop further renewable energy generation projects.</p> <p>Maximise the opportunities to link buildings that generate excess energy and those that can't produce their own energy</p>

Workstream 2: Low carbon fleet - our vehicles

Our current position	<p>Our 2019 baseline emissions from our fleet were 1,737.0 tCO₂e.</p> <p>We currently have 194 vehicles and powered items of equipment.</p> <p>13% of the current fleet is already fully electric (26 vehicles and 1 item of plant), and this will increase to 16% by March 2022, with 31 vehicles in total fully electric.</p> <p>Our 2021 public survey found that 85% of respondents wished us to change all our vehicles to use sustainable fuels.</p>
Challenges and opportunities	<p>When services request new vehicles, we go through a process of investigating their overall needs and fuel type.</p> <p>Some larger vehicles and some equipment are not available in alternative fuel sources yet.</p> <p>Our progress with changing to alternative fuelled vehicles has already started and they function well, so our workforce has confidence in the technology.</p> <p>Remodelling our central depot provides opportunities for solar PV vehicle charging bays.</p> <p>There are opportunities for greater use of pooled vehicles and for bicycle use.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ Our fleet runs completely on low or zero carbon alternative fuels. ✓ Vehicle mileage is reduced. ✓ We inspire others to follow our example.

Workstream 2: Low carbon fleet - our vehicles

(Continued from previous page)

Our outline plans

Short term 2022- 2025	Continued rollout of programme: a total of 60 fleet items will be powered by electricity by 2025. Share information across our area about the way we are changing our fleet fuelling. Explore solar EV car parking for staff and volunteers. Increase EV pool car opportunities.
Medium term 2026-2030	Continued rollout of the programme: a total of 113 fleet items will be powered by electricity or other low/zero carbon sources.
Long term 2031-2040	All our own vehicles will be switched to low carbon alternatives.

Workstream 3: Low carbon street lighting

Our current position	Our 2019 baseline emissions from street lighting were 1,313.4 tCO ₂ e. Since then, our purchase of 100% of our electricity from renewable sources of generation will have reduced this significantly. 94% of our street lights are now LED. The electricity for street lighting is from renewable sources. Our 2021 public survey found that 95% of respondents supported using energy efficient street lighting.
Challenges and opportunities	Our switch to LED lighting for most of our lighting facilities has been successful and we are using current technology which has reduced emissions. Our challenge is whether we can reduce overall fuel consumption any further. We would need to seek external funding for work on refining lighting controls. Street lighting levels and positioning have an impact of safety and perceptions of safety, and this needs to be born in mind in any plans.
What will success look like?	✓ Our street lighting technology represents the lowest emission choice that is feasible for us to have.

Workstream 3: Low carbon street lighting

(Continued from previous page)

Our outline plans

Short term 2022- 2025	<p>Further consideration of improved controls and management.</p> <p>Remaining street lighting to be changed to LED.</p> <p>Explore funding opportunities and market developments, especially when undertaking new developments in town centres and refurbishments of car parks.</p> <p>Develop permanency in renewables electricity purchasing, to ensure that emissions are as low as possible.</p> <p>Research solar powered top-up opportunities for some lighting locations and the potential to link EV charging to street lighting.</p>
Medium term 2026-2030	Review outcomes from short-term action and determine additional actions required.
Long term 2031-2040	Review outcomes from short-term action and determine additional actions required.

Workstream 4: Climate-conscious decision-making

Our current position	<p>Climate impact has been documented as part of all key decisions since 2019.</p> <p>Our social value toolkit encourages the consideration of a range of issues that could have positive local impacts.</p> <p>We have a growing expertise among our staff and our partners, to support decision-makers on climate-related subjects.</p> <p>Our major energy projects have been based on sound evidence and they have also helped to provide data that we can utilise.</p> <p>Our 2021 public survey found that 86% of respondents endorsed placing the environment at the heart of decision making.</p>
Challenges and opportunities	<p>Sometimes carbon savings and environmental impact are difficult to quantify and imagine. We lack a simple reference point that explains the current baseline and how that might change given certain key decisions.</p> <p>By considering environmental impact of all decisions, we can amplify the impact of our green aspirations.</p> <p>By identifying concerns and unintended consequences of some decision we can build in mitigation measures.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ Carbon and environmental impacts are considered for every decision made. ✓ Good quality data on environmental/carbon impact is available to decision makers prior to all key decisions being made.

Workstream 4: Climate-conscious decision-making

(Continued from previous page)

Our outline plans

Short term 2022- 2025	<p>Amend our report writing guide to assist all report authors to complete a climate impact assessment.</p> <p>Engage with decision-makers and support them through training and advice/guidance.</p> <p>Develop an environmental screening tool, to allow identification of high impact decisions.</p> <p>Develop a challenge and mitigation process to allow detailed assessment of impact and possible mitigation to be made available to decision makers for all high impact decisions.</p> <p>Develop some external quality assurance challenge of our approaches, through peer-to-peer support.</p> <p>Develop our building handbooks to include more requirements around energy management.</p>
Medium term 2026-2030	<p>Ensure all our key decisions include details for decision makers to understand carbon and biodiversity impact.</p> <p>Specify available mitigation measures available to achieve carbon neutrality and meet updated responsibilities on biodiversity.</p> <p>Review and refresh actions following quality assurance challenges.</p>
Long term 2031-2040	<p>Requirement for all our key decisions to demonstrate they can be delivered in a carbon neutral way and meeting a 10% biodiversity net gain.</p> <p>Review and refresh actions following quality assurance challenges.</p>

Workstream 5: Climate-conscious purchasing (goods and services)

Our current position	<p>Our current fuel purchasing arrangements are through an electricity framework where we use 100% green electricity.</p> <p>We consider fuel alternatives when purchasing our vehicles and powered equipment.</p> <p>Our 2021 public survey found that 93% of respondents supported buying more sustainable goods and services.</p>
Challenges and opportunities	<p>Procurement principles of transparency, equality of treatment and proportionality limits how far we can advocate for low carbon goods and services in supply chains.</p> <p>Some low carbon alternatives are more expensive, leading to difficult choices, at a time of reduced resources.</p> <p>We need to look at the whole life cycle of anything we procure, but that information is not always available.</p> <p>We do not want to disadvantage local and small suppliers, who may not have yet managed to improve their own environmental approaches.</p>

Workstream 5: Climate-conscious purchasing (goods and services)	
(Continued from previous page)	
	<p>Circular Economy is a relatively new concept for the organisation and will need time for it to be adopted and accepted as a strategy.</p> <p>We can use procurement as a vehicle for our ambitions, as a route to our supply chain, but the technical expertise needs to come from those professionals who are commissioning the work, and it will take time to develop that.</p> <p>We have procurement networks with whom we can share ideas to help us to develop low carbon procurement strategies.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ We are recognised as being ethical and sustainable in our practices and service delivery. ✓ All environmental aspects are considered, and opportunities are maximised prior to any procurements.
Our outline plans	
Short term 2022- 2025	<p>Set our procurement aspirations with support from across all our teams –requiring a new way of thinking across all services.</p> <p>Set out our desired standards, discuss these with the market as part of Prior Market Consultation and build these into tender processes, specifications, and contracts.</p> <p>Introduce the concept of circular economy.</p> <p>Ensure that there is robust contract management that includes social value and environmental considerations.</p> <p>For existing contracts, introduce the issues relating to climate action and see if any progress towards positive change can be made during the contract period.</p> <p>Consider any standalone policies that we may want to adopt and build those into the procurement strategy (e.g., types of fuel used, reduction in single use plastics). Review our procurement strategy and contract procedure rules to reflect this Carbon Roadmap and any new government regulations.</p>
Medium term 2026-2030	Review our procurement strategy and contract procedure rules to reflect this Carbon Roadmap and any new government regulations.
Long term 2031-2040	Review our procurement strategy and contract procedure rules to reflect this Carbon Roadmap and any new government regulations.

Workstream 6: Climate-conscious behaviours (Of our staff and those who work for us)	
Our current position	<p>We have launched energy use dashboards for most of our public buildings in 2021, so staff can be more aware of the energy being used.</p> <p>We have signed up to several national schemes promoting sustainable travel such as bike to work scheme and reduced tax rates for electric car leasing.</p> <p>We have raised awareness of our smart energy programme with staff and have engaged with local media.</p> <p>Our 2021 public survey found that 91% of respondents backed encouraging staff behaviour change to move towards more environmentally sustainable practices.</p>
Challenges and opportunities	<p>We operate a multi-faceted organisation and environmental impact varies across service areas and roles.</p> <p>Many roles are task-focused and completed in a traditional way which may require change to reduce our climate impact.</p> <p>We have not yet promoted or facilitated widespread carbon literacy.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ All our employees understand their role in reducing climate impact, act in a way at work that will reduce environmental damage and assist us to become carbon neutral. ✓ Our employees are inspired to bring their environmental knowledge and behaviours into their home lives.
Our outline plans	
Short term 2022- 2025	<p>Improve electric charging facilities at all workplace car parks to encourage sustainable travel.</p> <p>Use the remodelling of our central depot to increase secure bike storage and welfare facilities in Grimsby town centre, to increase bike to work facilities for all staff.</p> <p>Increase promotion and information of climate impacts and green behaviours, forming part of regular staff communications (a carbon literacy programme).</p> <p>Promote the use of building energy dash boards to encourage a reduction in energy consumption.</p> <p>Provide specific support to those who need to make key decisions.</p> <p>Review staff benefit schemes and benchmark against other public sector employers, to ensure we have implemented the greenest possible options available under government guidance.</p> <p>Develop climate/energy champions in all services.</p> <p>Consider how we can develop our use of information technology to help us to reduce carbon emissions and build awareness of the environmental impact of digital services.</p>
Medium term 2026-2030	<p>Review of our staff car parking scheme to consider financial incentives for carbon neutral vehicles.</p> <p>Tailor our carbon literacy programme to evolving technologies and notable practices.</p>

Workstream 6: Climate-conscious behaviours
(Of our staff and those who work for us)

(Continued from previous page)

Long term 2031-2040	Review our carbon literacy programme and update where necessary.
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Workstream 7: Climate-conscious community – Facilitate and encourage community engagement and sustainability actions	
Our current position	<p>Some community groups and individuals are providing leadership and taking positive steps to reduce their carbon emissions. People already participate in environmental improvement work, for example litter picks, beach cleans and in bloom competitions.</p> <p>There is trust and support among partners, forming a solid base from which to develop more engagement and joint initiatives. Our 2021 public survey found that 93% of respondents advocated for us to encourage community engagement and sustainable actions.</p>
Challenges and opportunities	<p>Climate change can seem an overwhelming subject and is a source of worry for many of us.</p> <p>It is hard to know where to start to make a difference in your own life.</p> <p>Climate change may have disproportionately negative consequences for those least able to engage and act for themselves. We have supportive local networks and partners.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ Our community knows where to find trusted information, and this is available in one place. ✓ Groups and individuals are supported to find solutions to climate-related issues. ✓ Resilience and adaptation to climate change increase as we learn more about how to tackle these issues.
Our outline plans	
Short term 2022- 2025	<p>Create a website dedicated to environmental matters, where residents can go to find trusted information and support. Provide easy-to-understand data about the current climate situation locally and show how things improve over time. Engage with residents in our new Sustainable Urban Drainage programme and use the learning from this to translate to other projects.</p> <p>Use opportunities in different services and in schools and community groups to start conversations about climate change and what we each can do to make a difference. Harness knowledge and collective intelligence.</p> <p>Work up some residents' guides on climate-related topics, using local expertise in our voluntary, charitable, and business sectors. Encourage and support new community carbon reduction ideas and develop inclusive carbon reduction plans. Bring together the elements of climate resilience planning for our area. Carry out sustainability mapping.</p> <p>Engage with and involve schools and colleges.</p> <p>See if there are community champions who want to engage more closely with this Plan.</p>
Medium term 2026-2030	<p>Showcase low/no carbon solutions, so people can familiarise themselves with alternatives.</p> <p>Refresh our engagement programme every three years, considering new developments in technology, communications, and community concerns.</p>

Workstream 7: Climate-conscious community – Facilitate and encourage community engagement and sustainability actions	
(Continued from previous page)	
Long term 2031-2050	Reset our plans, based on learning from the short term and medium-term actions.

Workstream 8: Low carbon commercial buildings: support businesses to make improvements	
Our current position	<p>Our main support to businesses and public building owners has been through our Smart Energy Greater Lincolnshire (SEGL) Programme, which has now closed after three years. The programme has seen over 260 businesses and public building owners supported to implement energy saving advice and measures, with a total of 2,500 businesses undertaking some engagement with the issues. This work has saved 3,678 tonnes of carbon emissions.</p> <p>Local businesses are keen for more advice in the future and for funding opportunities.</p> <p>We are exploring a community energy approach.</p> <p>Our work so far has been recognised by government as a best practice model, and we know what works well in our own area.</p> <p>Our 2021 public survey found that 92% of respondents wanted us to support businesses to improve the efficiency of commercial buildings.</p>
Challenges and opportunities	<p>Some businesses are unsure where to start and are concerned about the balance between costs and savings.</p> <p>Some businesses do not own their premises and need to rely on the owner to make energy improvements.</p> <p>As well as building energy use, there is work to do on processes, transport, and waste.</p> <p>External funding tends to be for a short period of time, which does not help when trying to build up trust with businesses.</p> <p>Our SEGL programme provided a ‘one stop shop’ approach, which was well received, leading to a building of trust.</p> <p>We are assessing our commercial properties, to see what work needs to be done to meet improved Energy Performance Certificate (EPC) ratings.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ Businesses know where to go for the help and information they need and take action to reduce carbon emissions. ✓ Businesses thrive in a low/zero carbon future.

Workstream 8: Low carbon commercial buildings: support businesses to make improvements

(Continued from previous page)

Our outline plans

Short term 2022- 2025	<p>Complete our three-year assessment of our own commercial estate.</p> <p>Make sure businesses have access to EPCs at a reasonable price, for example by co-purchase.</p> <p>Engage with installers/suppliers and bring them together with businesses.</p> <p>Identify the national goals and standards for carbon reduction, energy performance etc and share them among our community, to give a wider perspective.</p> <p>Engage with research being done in our area on energy hotspots.</p> <p>Work with CATCH and other business supports such as e- Factor to develop the offer to businesses.</p> <p>Seeking grant funding opportunities that support the action plan and being ready with projects.</p> <p>Link into Towns Fund and Future High Street fund to influence change.</p>
Medium term 2026-2030	<p>Preparing the business community for reaching the target of commercial buildings achieving a B score on their EPC by 2030.</p> <p>Explore group supply of energy to businesses.</p> <p>Consider buildings that may have finished their economic life as business use and seek to convert to residential, where energy efficiency improvements make that possible.</p> <p>Make business support and innovation-sharing available through the Green Hub in Grimsby town centre.</p> <p>Explore opportunities to revise the Local Plan to consider improvements to commercial property.</p>
Long term 2031-2050	<p>Share knowledge of opportunities with new technologies etc with local businesses.</p> <p>Seek to be handing over responsibility for innovation and information to the business community itself.</p> <p>Review offer and develop as needed.</p>

Workstream 9: Low carbon transport – through network investment and policy change

Our current position	<p>Our Local Transport Plan (LTP) that covers the period 2016 – 2032 contains a series of local transport challenges including “Ensuring transport contributes to environmental excellence, improved air quality and reduced greenhouse gas emissions”. All schemes delivered using LTP funding must consider how they address this challenge.</p> <p>We deliver behavioural change initiatives and events that support walking, cycling and public transport utilising external grant funding from the Department for Transport’s Access Fund.</p> <p>We provide support for businesses, schools, and community organisations to develop travel plans that consider sustainable and active travel options.</p> <p>We provide real Time bus information (RTI) and at stop information to support and enable public transport use.</p> <p>We have invested in raised kerb bus stops, modern bus shelters and waiting facilities and bus priority measures at several local traffic signal junctions to increase the attractiveness of public transport services for everyone.</p> <p>We currently provide Electric vehicle (EV) ChargePoint’s at two sites (Cartergate and St Peters Avenue) for public access EV charging. There are a further 17 EV ChargePoint sites across North East Lincolnshire provided by a range of private providers.</p> <p>We deliver new high-quality cycle route infrastructure (including new off-road paths along the South Humber Bank area) to support and facilitate safe and convenient cycle access to work and training opportunities.</p> <p>We deliver road safety education and campaigns to address concerns of vulnerable road users.</p> <p>Our 2021 public survey found that 88% of respondents supported making transport greener through network investment and policy change.</p>
Challenges and opportunities	<p>EV charging – Preliminary work has been done to look at the number and types of EV ChargePoint’s that are likely to be needed over the next decade to satisfy demand for public access charging and how we can support the growth of EV ownership in our area by facilitating new EV ChargePoint’s, initially in our own/managed car parks. Opportunities to expand network to meet future demand with the challenge how to deliver this provision in more difficult areas of the Borough.</p> <p>Work is underway to develop the Local Cycling and Walking Infrastructure Plan (LCWIP). This will identify the infrastructure needed in the Borough to support the Government’s ambition for cycling and walking to be the natural choices for short local journeys by 2040. Government funding via the ‘Active Travel Fund’ is likely to continue for the foreseeable future and provides the opportunity to make a significant difference in the quantity and quality of pedestrian and cycle facilities.</p> <p>We could roll-out an e-bike scheme through the Department for Transport Capability Fund to increase local access to electric bikes via partnership working with local organisations.</p>

Workstream 9: Low carbon transport – through network investment and policy change

(Continued from previous page)

Challenges and opportunities	<p>The Government's drive for all local transport authorities to develop an enhanced partnership with their local bus operators has seen the development of a Bus Services Improvement Plan (BSIP) for North East Lincolnshire with local operator Stagecoach East Midlands. If funding is received, the BSIP will help facilitate service improvements and the development of studies and reports to look at longer term enhancements to the local bus network including electric buses and an improved passenger experience to encourage use and modal shift away from single occupancy car journeys.</p> <p>Opportunities to support the move towards electrification of local transport services, that increase accessibility i.e., e-bikes and e-mopeds through the local Wheels to Work partnership and the use electric mini-buses to run local Demand Responsive bus services with.</p> <p>Potential roll-out of e-scooter use in North East Lincolnshire in line with any possible changes to the laws regarding their use following trials currently underway across England.</p> <p>The Government's Levelling Up Fund (LUF) provides opportunities to bid for significant amounts of funding for highways and transport projects which could help facilitate major improvements to local transport networks including the delivery of low carbon transport projects.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ Travel choices include low or no carbon options that are affordable and easy to use. ✓ Increase in the number of people who choose to walk or cycle for short local journeys. ✓ Increase in bus passenger numbers. ✓ Increase in the number of EVs registered to addresses in North East Lincolnshire. ✓ Increase the number of businesses, schools and community organisations who develop and delivery sustainable/active travel plans. ✓ Increased use of EV charge points.
Our outline plans	
Short term 2022- 2025	<p>Ensure updates to the Local Transport Plan are fully aligned to this Carbon Roadmap.</p> <p>Increase EV public charging capacity in the borough (either at our sites or at others that are privately owned by businesses or investment by businesses on our land).</p> <p>Complete a Masterplan for a cycle highway, linking schemes together.</p> <p>Identify barriers to walking, ensuring plans are inclusive and include the needs of all pedestrians.</p>

Workstream 9: Low carbon transport – through network investment and policy change

(Continued from previous page)

Short term 2022- 2025	<p>Consider parking fees being related to the type of vehicle.</p> <p>Promote direct rail link to London and bus links to enable changeovers.</p> <p>Offer advice for travel plans for businesses.</p> <p>Offer advice to businesses on ways to support and enable cycling and walking to work.</p> <p>Promote cycle-to-work initiatives.</p> <p>Alleviate fears around road safety in relation to active travel.</p> <p>Encourage behaviour change among young people – engage with academy groups.</p>
Medium term 2026-2030	<p>Deliver a better renewable travel hub in Grimsby.</p> <p>Work towards an electric bus network.</p> <p>Provide special ranks for EV taxis and consider differential charges for taxi licensing.</p> <p>Promote EV charging points in new homes.</p> <p>Complete development of local walking networks to key local attractions.</p> <p>Complete development of a cycle highways enabling safe cycling for education, work, and leisure.</p> <p>Enable an improved local network to access sustainable fuels such as EV charging and hydrogen.</p> <p>Consider options for local electricity generation to power EV charging.</p>
Long term 2031-2050	<p>Remove barriers to EV charging in terraced streets.</p>

Workstream 10: Low carbon industry: support our partners in achieving industrial decarbonisation

Our current position	<p>Our refreshed economic strategy cements our drive to carbon net zero, with one of the four cornerstones being a green economy – maximising low carbon and healthy initiatives in industry and our place.</p> <p>Our area has become the home for some internationally recognised market leaders in the low carbon world.</p> <p>Our South Humberside Industrial Investment Plan (SHIIP) incorporates a nationally recognised ecological mitigation project.</p> <p>We have built up a positive relationship with government, in which the potential of our area is recognised and showcased.</p>
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Workstream 10: Low carbon industry: support our partners in achieving industrial decarbonisation	
(Continued from previous page)	
Our current position	Our 2021 public survey found that 92% of respondents would like us to support local industries to reduce their carbon emissions.
Challenges and opportunities	<p>Some of our industries have non-UK head offices which may make reaching them to encourage decarbonisation difficult. Large emitters will have a huge challenge to reach low/zero carbon goals.</p> <p>We need external funding to deliver some projects, but this is currently not available, and the government's future funding strategy is unclear.</p> <p>We can be a convenor between organisations.</p> <p>We have some low carbon businesses locating here.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ Energy intensive businesses and transport are supported to decarbonise through measures such as carbon capture and storage. ✓ Research and development opportunities for low carbon fuel alternatives and next-generation components are supported. ✓ The success of ecological mitigation around key development sites continues, to ensure growth and environmental performance go hand in hand.
Our outline plans	
Short term 2022- 2025	<p>Continue backing the Operations and Maintenance Centre of Excellence (OMCE) on the Port of Grimsby.</p> <p>Support the delivery of the Humber Industrial Cluster Plan, the Zero Carbon Humber Partnership, and emerging projects.</p> <p>Support the creation of a Freeport innovation hub on the Humber and increase ecological mitigation with the second site being developed related to the SHIIP.</p> <p>Include in the review of the Local Plan policy considerations relating to alternative energy sources and low carbon transport options.</p> <p>Support the Green Hub in Grimsby town centre, making collaboration, innovation, and advice available.</p> <p>Keep a watch on potential external funding sources for decarbonisation and inform local businesses about their opportunities.</p> <p>Work with partners to share knowledge and look at possibilities for alternative energy sources in our area.</p> <p>Undertake fact-finding with utilities, looking at future potential for decentralised energy supply, including heat networks and sustainably produced hydrogen.</p>

Workstream 10: Low carbon industry: support our partners in achieving industrial decarbonisation	
(Continued from previous page)	
Short term 2022- 2025	Work on a skills implementation plan, that will include skills to meet the challenges of decarbonisation.
Medium term 2026-2030	Support the investigation of opportunities for hydrogen fuel. Develop sector champions to inspire low carbon actions. Ensure that low carbon skills are available and continue to be developed as technology changes.
Long term 2031-2050	Carbon capture development for our region – potential offshore facility. Facilitate the availability of green energy for industry.

Workstream 11: Low carbon new homes: utilise our role as a policy maker and planning authority	
Our current position	<p>We work within national guidance and our own Local Plan policies.</p> <p>We have investigated heat networks, but the case for these is not viable now.</p> <p>We have published design guidance for a major new development on our land at the former Western School.</p> <p>Our 2021 public survey found that 75% of respondents backed us to support sustainable new housing as a policy maker and planning authority.</p>
Challenges and opportunities	<p>Low carbon features for new homes are generally not required by government and both developers and the public see them as risky, expensive, and untried. Some developers are putting in EV charging points, but this is not currently a policy ask.</p> <p>National grant programmes have not been successful due to unrealistic timescales.</p> <p>In some areas we have electricity capacity shortfalls, meaning EV charging may be unrealistic.</p> <p>Our low-lying land and flood risk limits the type and location of new housing.</p> <p>Possibility for geothermal heating – a centralised heat network.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ New homes are designed from the outset to be low carbon, and this is valued by both developers and home buyers. ✓ Low carbon new homes are affordable so that this transition has an element of fairness for our community.

**Workstream 11: Low carbon new homes:
utilise our role as a policy maker and planning authority**

(Continued from previous page)

Our outline plans

Short term 2022- 2025	<p>Take the opportunity of the review of our Local Plan to include policies relating to new homes design and carbon reduction, where this is allowable and viable in planning law.</p> <p>Consider producing design guidance that is voluntary and informative.</p> <p>Work with the housing developers' forum to understand and appreciate some of the environmental issues relating to construction.</p> <p>Provide guidance on renewable energy for new homeowners, to support their choice of fuels and suppliers.</p> <p>Provide guidance on landscaping and gardens, to enhance flood resilience and shading.</p>
Medium term 2026-2030	<p>Preparation for changes away from using gas for heating and cooling.</p> <p>Preparation for changes to the types of new cars sold, working with developers to increase EV charging.</p> <p>Working with developers.</p>
Long term 2031-2050	<p>Develop our plans relating to flood risk alongside the 2100 plan with the Environment Agency– looking at new coastline in relation to breach scenarios.</p>

**Workstream 12: Climate-conscious older homes:
support older housing stock to become more sustainable**

Our current position	<p>We have Energy Performance Certificates (EPCs) for 33,000 dwellings and the recommendations for each property, though we a way to go to get the full picture on all 71,000 properties in the borough.</p> <p>The Guildford Street renovations have changed the behaviours and feel of the place (funded through grants and our own funding).</p> <p>Work is being done with frontline services to pass back information on poor quality housing.</p> <p>We promote the Big Community Switch in our area, offering competitive fuel deals through large-scale purchasing.</p> <p>The South Humber Energy Efficiency Partnership (SHEEP) and Greater Lincolnshire Energy Efficiency Network (GLEEN) have brought money into the area for thousands of energy-based housing improvements.</p> <p>Results of a public survey in 2021 discovered that 94% of the respondents would like us to support our partners and residents to improve old houses to become more sustainable.</p>
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Workstream 12: Climate-conscious older homes: support older housing stock to become more sustainable

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Challenges and opportunities	<p>Homeowners are reluctant to make investments in energy efficiency and low carbon technology as they won't get the payback.</p> <p>We have a high quantity of older, poor quality housing stock owned and/or occupied by lower income households for whom fuel poverty is a reality. Bulk of our E and F rated properties are in private ownership.</p> <p>There is now a minimum EPC rating for let properties, but this is difficult to enforce. Our selective licensing plans could help here.</p> <p>Govt funding for energy efficiency will come through local councils from now on.</p> <p>Social housing landlords now have finance available through the social housing decarbonisation fund.</p> <p>Stock modelling surveys will help us to identify high category risk properties.</p> <p>Trading Standards have a trusted trader approach, though availability is low.</p>
What will success look like?	<ul style="list-style-type: none"> ✓ All residents to have access to a home that is energy level C or above. ✓ Social housing meets similar standards to private housing.
Our outline plans	
Short term 2022- 2025	<p>Identify dedicated support for landlords and private owners navigating the grants market, linking with work being undertaken in our community.</p> <p>Work with registered providers – co-ordinated approach with RSLs.</p> <p>Continue to link up poor health related to poor housing; look at using the Care Fund for home heating.</p> <p>Work across services and in the wider community to identify all grant possibilities for home heating/energy.</p> <p>Utilise the trusted traders' scheme, to make sure people have the correct information about how to improve their properties.</p> <p>Co-produce a fuel poverty strategy, which will include carbon reduction and fuel efficiency.</p>
Medium term 2026-2030	Look at targeted street schemes/area renewal and create an action plan.
Long term 2031-2050	Implement targeted schemes.

Our governance arrangements

To ensure that progress towards achieving net zero carbon neutrality through our own actions is monitored, reported on, and scrutinised, an Environment Board will be set up. Its objective will be to oversee delivery of this agenda, together with other themes required to achieve our ambition of a green future, such as protection of nature, wildlife, and biodiversity. This board will be responsible for providing strategic direction, ensuring adequate financial support and resource is in place, and managing programme risks. It will also be responsible for monitoring progress and providing updates to key stakeholders, leadership, and scrutiny.

Several project delivery groups with clear workstream leads will be accountable for ensuring projects are developing in line with agreed objectives and timescales. This will include the already established Public Building delivery group, the overarching Environment Officer Group, as well additional specific project groups in key delivery areas. Project Teams will also be responsible for reporting progress and communicating any risks or issues. A programme highlight report will be collated on a quarterly basis, with annual progress reports to Cabinet.

Each workstream and discrete project will have its own risks, dependencies, and interfaces captured via appropriate risk workshops and dedicated risk registers. Some common risks include:

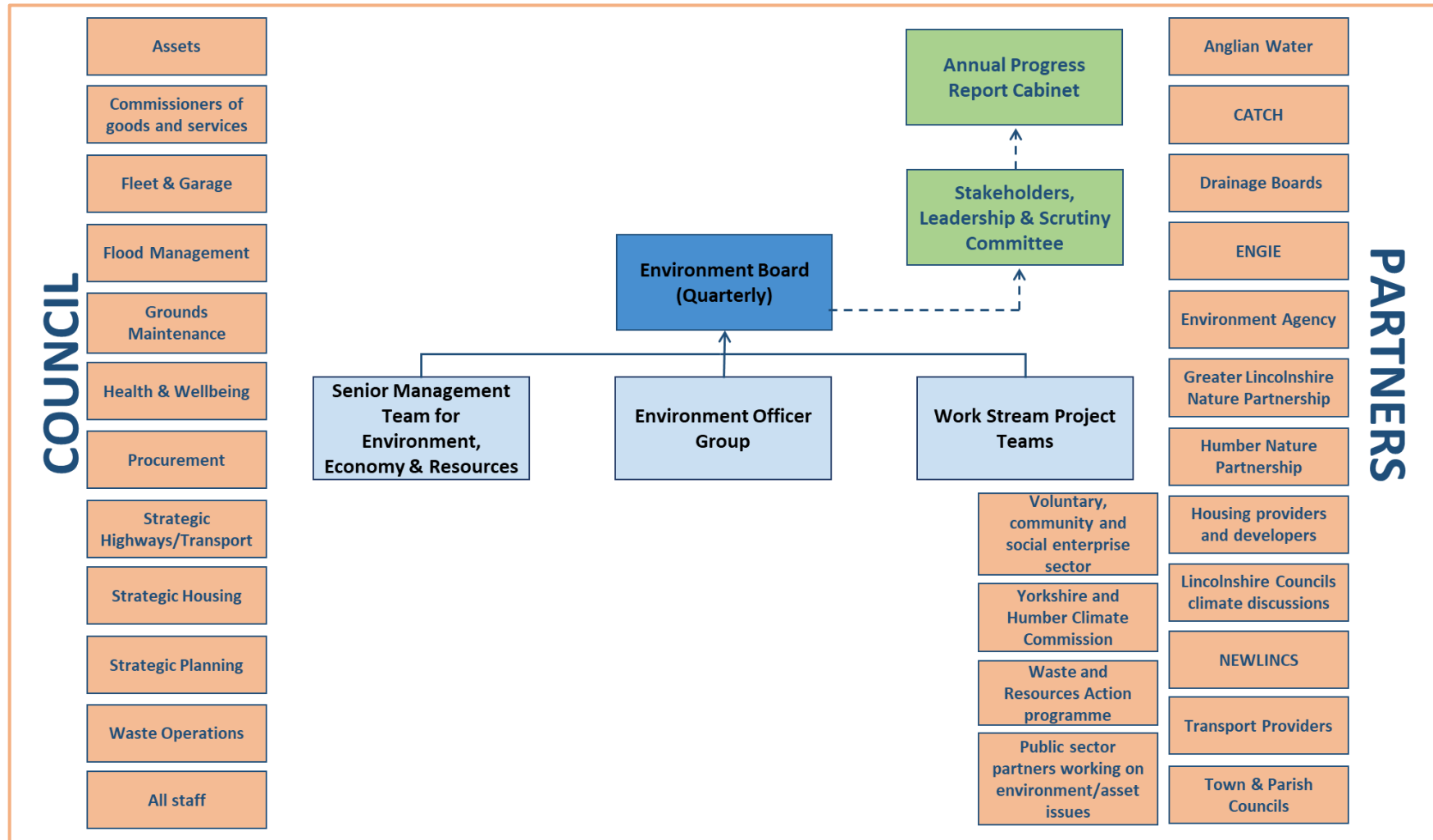
Financial risks/external funding availability: there is a risk that adequate funding is not available, which would result in projects not being completed or being delayed. Where possible, actions are being aligned with actions and budgets that are already in place. Opportunities to maximise on receipt of, Government and other, grant funding are also being sought.

Resource: this is needed to achieve the aspirations set out. However, pressures on our budgets and staff presents a risk to this. To mitigate this a dedicated will, need to be considered, with a clear programme structure to help mitigate resourcing or delivery risks. We will work collaboratively with partners to share best practice and avoid duplication of work.

New technology: this is being developed at a rapid pace and we will need to ensure we consistently review our approaches, to ensure that the most appropriate solutions are implemented, considering cost as well as carbon emissions.

Culture Change: to achieve our aspirations we need to consider climate change in every project that we manage or support. This will require increased carbon literacy in the workforce and culture change across the organisation.

High level governance structure



This diagram identifies some of the council teams and partners that will need to work together to make this plan work. It also shows that we will set up an Environment Board, which will report on progress through to our Scrutiny panels and our Cabinet.

Monitoring and reporting

Delivery of net zero carbon within North East Lincolnshire will be a dynamic process that will evolve as the climate emergency and technology landscape shifts over time. Therefore, the plan will be reviewed regularly to ensure that it stays current and remains fit-for-purpose.

Each workstream will report progress on a quarterly basis to the Environment Board, and this will capture key milestones achieved and any risks or issues for the workstream in question.

We will continue to report greenhouse gases through existing reporting requirements and a carbon reduction tracker will be used to monitor progress made towards net zero carbon by us. Government statistics will be used to track progress within the wider region.

Each year an annual report will be approved by Cabinet and published to summarise the progress made during the previous calendar year, and to give a forward projection of the projects anticipated for delivery over the subsequent calendar year.

The purpose of annual monitoring and reporting is to allow all stakeholders to ascertain our progress towards our net zero carbon target. The report will also include a section highlighting the latest data on regional emissions and key actions.

If you want to find out more

We are in a good position to support our community in making small changes in the way we live, to reduce our impact on our climate and so give our natural world and its people a better future. Please look at our website for further information or contact us by phone to find out more.

The plans and actions that give the context and support to our Carbon Roadmap
(See diagram on page 8)

	What's in it?
UK Government 25-year environment plan	This sets out goals and actions for improving the environment over the next 25 years and leaving it in a better state than we found it. It details how government will work with communities and businesses to do this. 25 Year Environment Plan - GOV.UK (www.gov.uk)
UK climate change act and sixth carbon budget	The Climate Change Act of 2008 set a target of achieving net zero for the UK by 2050, based on a baseline of 1990. It established the publication of carbon budgets, and the sixth budget became law in June 2021. This says that the UK will reduce its greenhouse gas emissions by almost 80% by 2037. https://www.gov.uk/government/news/uk-enshrines-new-target-in-law-to-slash-emissions-by-78-by-2035
UK govt Plan for growth – 'Build Back Better'	This sets out the government's plans to support growth through significant investment in infrastructure, skills, and innovation, and to pursue growth that levels up every part of the UK, enables the transition to net zero, and supports the government's vision for Global Britain. https://www.gov.uk/government/publications/build-back-better-our-plan-for-growth
UK govt 10-point plan for a green industrial revolution	This plan lays out the main steps to be taken to completely change the way that power is generated, how our transport, is powered and how industry and construction work, whilst protecting the environment and creating new jobs. https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution/title
Environment Bill	This Bill makes provisions for improving and protecting the natural environment, for waste and resource efficiency, air, and water quality. It is likely to become an Act in late 2021 or in 2022. https://www.gov.uk/government/publications/environment-bill-2020
UK Government Energy White paper	This addresses the transformation of our energy system, promoting high-skilled jobs and clean, resilient economic growth as we deliver net-zero emissions by 2050. https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future
Humber Estuary Plan	This plan spans the Humber estuary and focuses on accelerating clean (low/no carbon) growth, developing the ports and manufacturing, managing the natural resources, and bringing in new investment. Humber Estuary Plan (heylep.com)
Yorkshire and Humber Climate Commission	This is an independent advisory body bringing people together from all sectors to support ambitious climate change actions across the region. Yorkshire & Humber Climate Commission (yorksandhumberclimate.org.uk)

The Greater Lincolnshire Local Industrial Strategy	<p>This strategy, produced by the Greater Lincolnshire Local Economic Partnership, identifies energy issues as one of its key priorities. It aims for the areas to become a test bed for clean energy, in generation, storage and distribution.</p> <p>GLLEP Local Industrial Strategy FINAL DRAFT (10th February 2021).pdf (greaterlincolnshirelep.co.uk)</p>
Northern Lincolnshire and Goole NHS Foundation Trust Green Plan 2021-2022	<p>This outlines the initiatives, projects, and activities the Trust will deliver in our address of the sustainable agenda, ensuring the whole Trust receives increased awareness, knowledge of, and understanding of our objectives and responsibilities, sharing our impact in reducing carbon emissions produced by the Trust's activity.</p> <p>https://www.nlg.nhs.uk/content/uploads/2021/03/DCM525.pdf</p>
Waste and Litter Strategies	<p>These Strategies outline the council's approach to waste and litter management. The Waste Strategy sets out the council's plans until 2035 and aims to ensure we follow the principles of the circular economy by reducing the waste we send to landfill and increasing the waste that we recycle. The Litter strategy aims to support our waste strategy and provides detail on how we aim to use the circular economy in our litter management and implement the right bin right place principle.</p> <p>Waste Management Strategy (nelincs.gov.uk)</p>
Natural Assets Plan	<p>This plan is in preparation. It complements the Carbon Roadmap by looking at how we can adapt to climate change, improve biodiversity, and enable people to enjoy and feel part of their local environment.</p> <p>(Link will be available in December 2021)</p>
Local Transport Plan	<p>This seeks to address some of our most serious transport challenges, which include ensuring that transport contributes towards managing air quality and reducing transport-related greenhouse gas emissions.</p> <p>Local Transport Plan (nelincs.gov.uk)</p>
Local Plan	<p>The North East Lincolnshire Local Plan 2013-2032 shows where we will be helping to create new jobs, where homes will be built and how we are going to protect and enhance those features of our Borough which are special. It supports the transition to a low carbon future in a changing climate. It identifies the critical success factors for addressing the causes and effects of climate change.</p> <p>https://www.nelincs.gov.uk/assets/uploads/2020/10/The-NEL-Local-Plan-adopted-2018.pdf</p>
Housing Strategy	<p>This includes actions to reduce fuel poverty, provide energy saving advice and assist residents with energy saving measures.</p>
Air Quality Strategy	<p>We have a statutory duty, under the Environmental Act 1995, to carry out regular reviews and assessments of local air quality. We are continually monitoring air quality within our borough. Our Air Quality Strategy ensures air quality issues are considered in the wider decision-making framework, so that we can secure future improvements.</p> <p>http://www.nelincs.co.uk/wp-content/uploads/2016/04/AQ-Strategy-2015-FINAL.pdf</p>

Local Flood Risk Management Strategy	<p>This strategy aims to build resilience with the community of North east Lincolnshire to be better prepared for flooding and creates a strong partnership approach to reduce the impacts of flooding.</p> <p>North-East-Lincolnshire-Local-Flood-Risk-Management-Strategy.pdf (nelincs.co.uk)</p>
Council Plan	<p>The Council Plan sets out the key actions for the Council that will contribute towards our priorities of 'Stronger Economy, Stronger Communities'.</p> <p>https://democracy.nelincs.gov.uk/wp-content/uploads/2021/05/4.-Council-Plan.pdf</p>

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