

Climate Emergency Strategy and Action Plan

Roadmap to net zero emissions
for North Kesteven District Council
and the district of North Kesteven



North Kesteven District Council's Commitment To Climate Change

On 15th July 2019 NKDC's Full Council unanimously resolved that, This Council;

Declares a 'Climate Emergency' and works with residents, businesses and other partners to tackle climate change, lobbying for support to address this emergency by 2030.

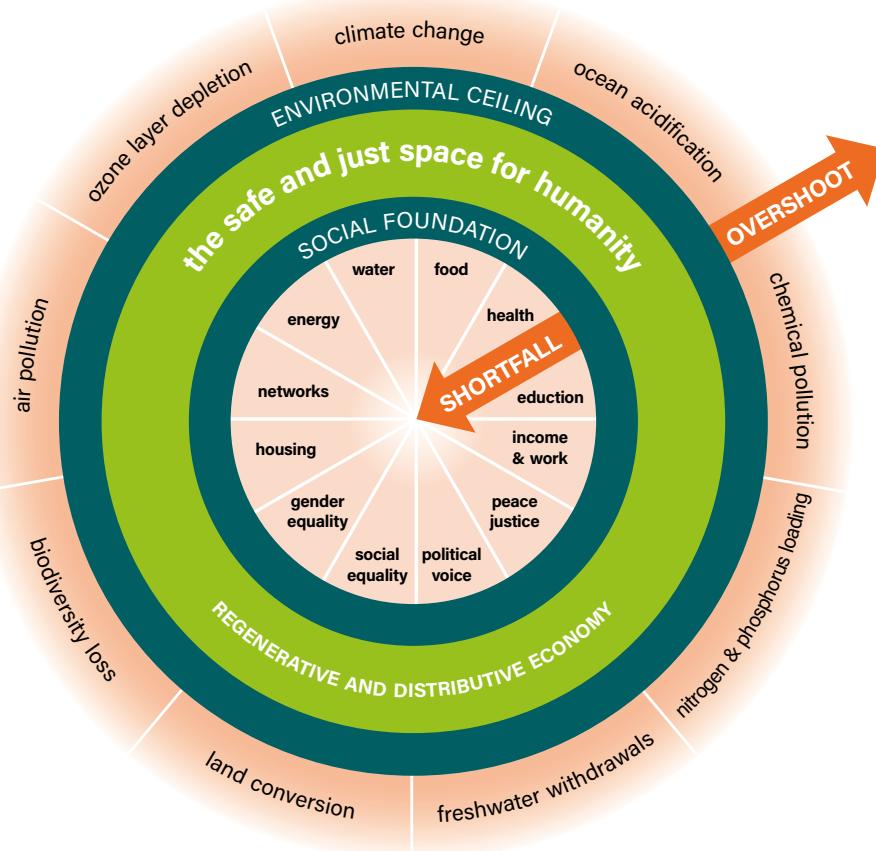
Recognises the progress already achieved in reducing greenhouse gas emissions from North Kesteven District Council operations by 67.05% in ten years and the 25% per capita (per person) reduction across the district.

Supports the development of a new policy and strategy for the 'Our Environment' priority' within the NK Plan following scrutiny review and Executive Board consideration.

Supports the development of pilot programmes designed to advance the Sustainable Development Goals, focused on cost effective innovation to enable the district to reduce reliance on fossil fuel technology.



Climate Emergency Strategy



NKDC has been working to reduce the district's negative impact on the environment for well over a decade. The council's commitment now runs throughout its corporate plan (the NK Plan) affecting every division, colleague, and service it delivers. We know that we must operate not just within the earth's climate change boundary, but our vision of a district of flourishing communities, must be delivered within all the earth's natural boundaries if we are to meet everyone's needs now and in the future (as illustrated by the 'doughnut' above).

¹Rayworth, K. (2017) Doughnut Economics, London: Random House Business Books



Climate Emergency Strategy

Sustainable Development

In addition to 'the doughnut', the United Nations Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for everyone. They address the global challenges we face. The Goals are interconnected. This strategy and action plan recognises that to leave no one behind, it is important that we not only tackle the climate emergency, but pursue sustainable development and work to achieve all the goals by 2030.

DONATE WHAT YOU DON'T USE.

More than 700 million people still live in extreme poverty.

Goal 1: No Poverty

WASTE LESS FOOD AND SUPPORT LOCAL FARMERS.

A third of the world's food is wasted. Yet 821 million people are undernourished.

Goal 2 Zero Hunger

VACCINATE YOUR FAMILY.

Vaccinations resulted in an 80% drop in measles deaths between 2000 and 2017.

Goal 3: Good Health and Well-Being

HELP EDUCATE THE CHILDREN IN YOUR COMMUNITY.

617 million children and adolescents lack minimum proficiency in reading and mathematics.

Goal 4: Quality Education

EMPOWER WOMEN AND GIRLS AND ENSURE THEIR EQUAL RIGHTS.

1 in 3 women has experienced physical and/or sexual violence.

Goal 5: Gender Equality

AVOID WASTING WATER.

Water scarcity affects more than 40% of the world's population.

Goal 7: Affordable and Clean Energy

CREATE JOB OPPORTUNITIES FOR YOUTH.

One-fifth of young people are not in education, employment or training.

Goal 8: Decent Work and Economic Growth

FUND PROJECTS THAT PROVIDE BASIC INFRASTRUCTURE.

Roads, water, sanitation and electricity remain scarce in many developing countries.

Goal 9: Industry, Innovation, and Infrastructure

SUPPORT THE MARGINALISED AND DISADVANTAGED.

The poorest 40% of the population earn less than 25% of global income.

Goal 10: Reduced Inequalities

BIKE, WALK OR USE PUBLIC TRANSPORTATION.

9 out of 10 urban residents breathe polluted air.

Goal 11: Sustainable Cities and Communities

RECYCLE PAPER, PLASTIC, GLASS AND ALUMINIUM.

By 2050, the equivalent of almost three planets could be required to sustain current lifestyles.

Goal 12: Responsible Consumption and Production

ACT NOW TO STOP GLOBAL WARMING.

Global emissions of carbon dioxide (CO₂) have increased by almost 50% since 1990.

Goal 13: Climate Action

AVOID PLASTIC BAGS TO KEEP THE OCEANS CLEAN.

Over three billion people depend on marine and coastal biodiversity for their livelihoods.

Goal 14: Life Below Water

PLANT A TREE AND HELP PROTECT THE ENVIRONMENT.

Forests are home to more than 80% of all terrestrial species of animals, plants and insects.

Goal 15: Life on Land

STAND UP FOR HUMAN RIGHTS.

In 2018, the number of people fleeing war, persecution and conflict exceeded 70 million.

Goal 16: Peace, Justice and strong Institutions

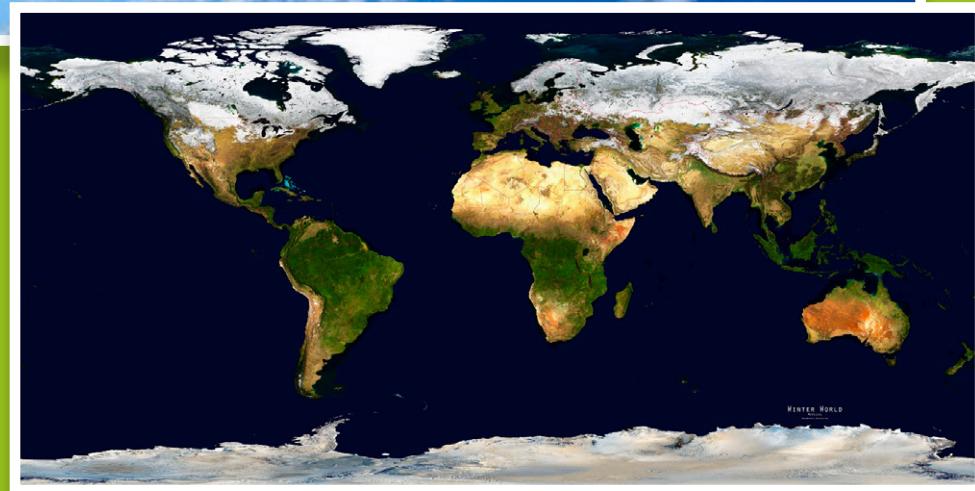
LOBBY YOUR GOVERNMENT TO BOOST DEVELOPMENT FINANCING.

Achieving the SDGs could open up US \$12 trillion of market opportunities and create 380 million new jobs by 2030.

Goal 17: Partnerships

How Our Climate Works

A system of five interconnected components that regulates the sun's energy and weather patterns around the world.



The sun

Life on the Earth is dependent on the light, heat and energy from the sun. The Earth is just the right distance from the sun for life, but only because our climate system's five balanced and interconnected elements manage the sun's energy to make the Earth a habitable safe place to live.

1. Atmosphere

Around just 12 miles of atmosphere above our heads influences the world's climate and provides the air we breathe. It is a protective bubble around the planet made up of 99.9% nitrogen, oxygen and argon. 0.01% of it is naturally occurring carbon dioxide, methane, nitrous oxide and water vapour. These trace greenhouse gases trap a small amount of the sun's rays in the atmosphere. Without them the Earth would be -19°C and uninhabitable to life as we know it.

2. Liquid water

97% of the world's water is in the oceans. Our 'blue planet's' surface is 70% dark blue. Dark colours absorb the most energy. The oceans store the sun's energy and transport it around the world by the wind and deep ocean currents. It absorbs and stores excess carbon dioxide from the atmosphere. This is causing it to warm, expand and rise.

3. Land surface

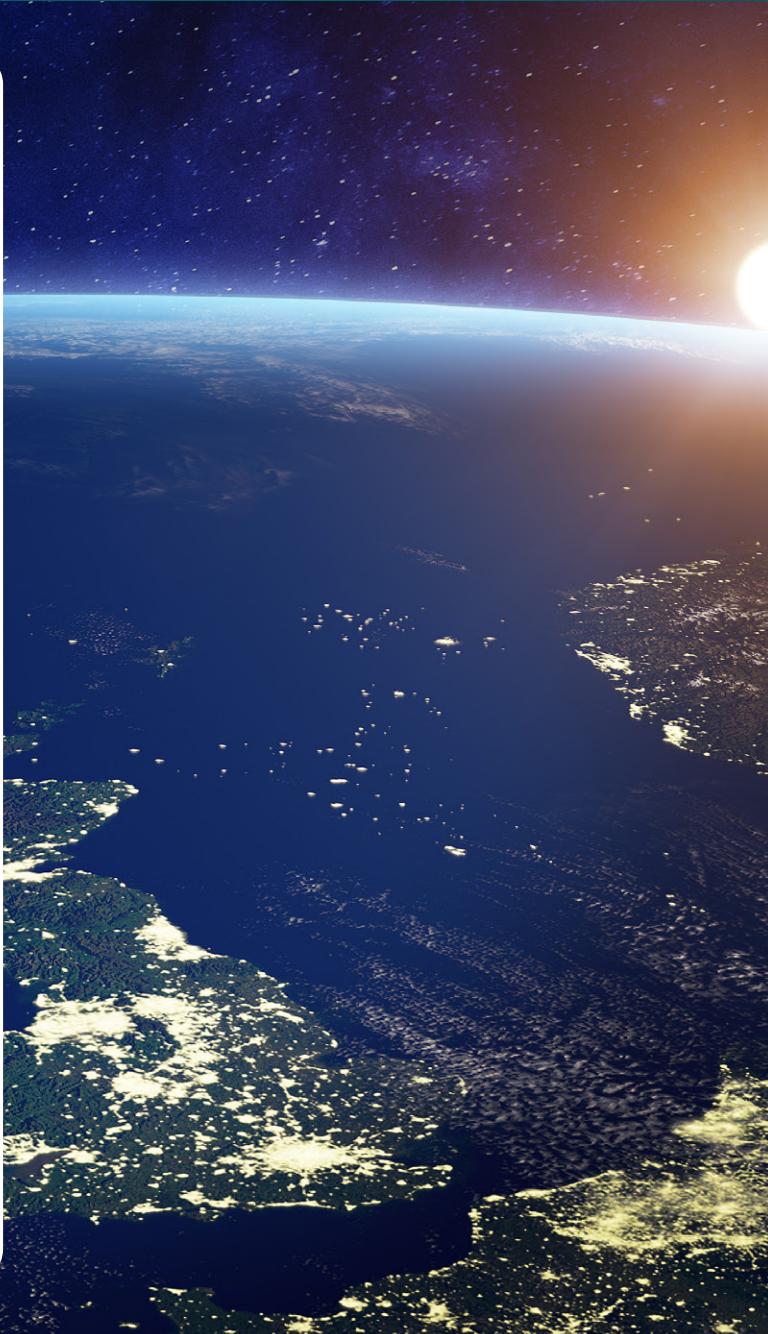
The land controls the sun's energy by absorbing some and reflecting the rest back into the atmosphere. It controls water vapour (a greenhouse gas) in the atmosphere by storage and evaporation. The irregular shape of the land influences the movement of air, rainfall and temperature, causing local variations in climate. The hills to the west of Lincolnshire block the rain brought inland from the Atlantic, making it one of the driest counties in the UK.

4. Frozen water

To counter the dark colour and absorbing properties of the oceans and land, a large proportion of the Earth is always covered in white frozen snow and ice to reflect the sun's energy back into space.

5. Living and dead organisms

Much of the planet's land is shaded in green plant life which regulates and cools the air and the land, and releases water from their leaves. Together living organisms in the atmosphere, on land, and in the oceans, and importantly dead organisms in soil and plant litter, regulate carbon dioxide, oxygen and water. Plants use carbon dioxide to process glucose and release oxygen. Whilst the majority of living organisms respire, taking in oxygen and releasing carbon dioxide.



Climate change

Our planet is not blue, it is a blue, green, gold and white planet in a very thin protective bubble. The five interconnected elements of the climate system (atmosphere, liquid and frozen water, land, and living and dead organisms) together make this planet habitable. When one element changes it affects the others.

By increasing the trace level of greenhouse gases in the atmosphere humans are;

- **Increasing the temperature of land and sea**
- **Melting snow and ice cover**
- **Exposing more land and sea**
- **and increasing sea levels**

It is air pollution in the atmosphere, mainly from burning fossil fuels, that is unbalancing the climate system. Around 50% of global carbon emissions are generated by just 11% of the world population. It is excessive consumption of energy and goods by people in the richest countries, and the demand for the production of the goods and services they purchase, that is the biggest source of stress to our planet's natural boundaries. It can take thirty years to feel the effects of the emissions we release.

Climate change is affecting us now, and is the result of past emissions. Those we release today could cause potentially irreversible global warming in the future. That is why we are experiencing more extreme and record breaking weather events every year and making this planet hostile and uninhabitable to the life on it. As a result North Kesteven will continue to experience hotter drier summers and warmer wetter winters to which our residents and businesses must adapt.

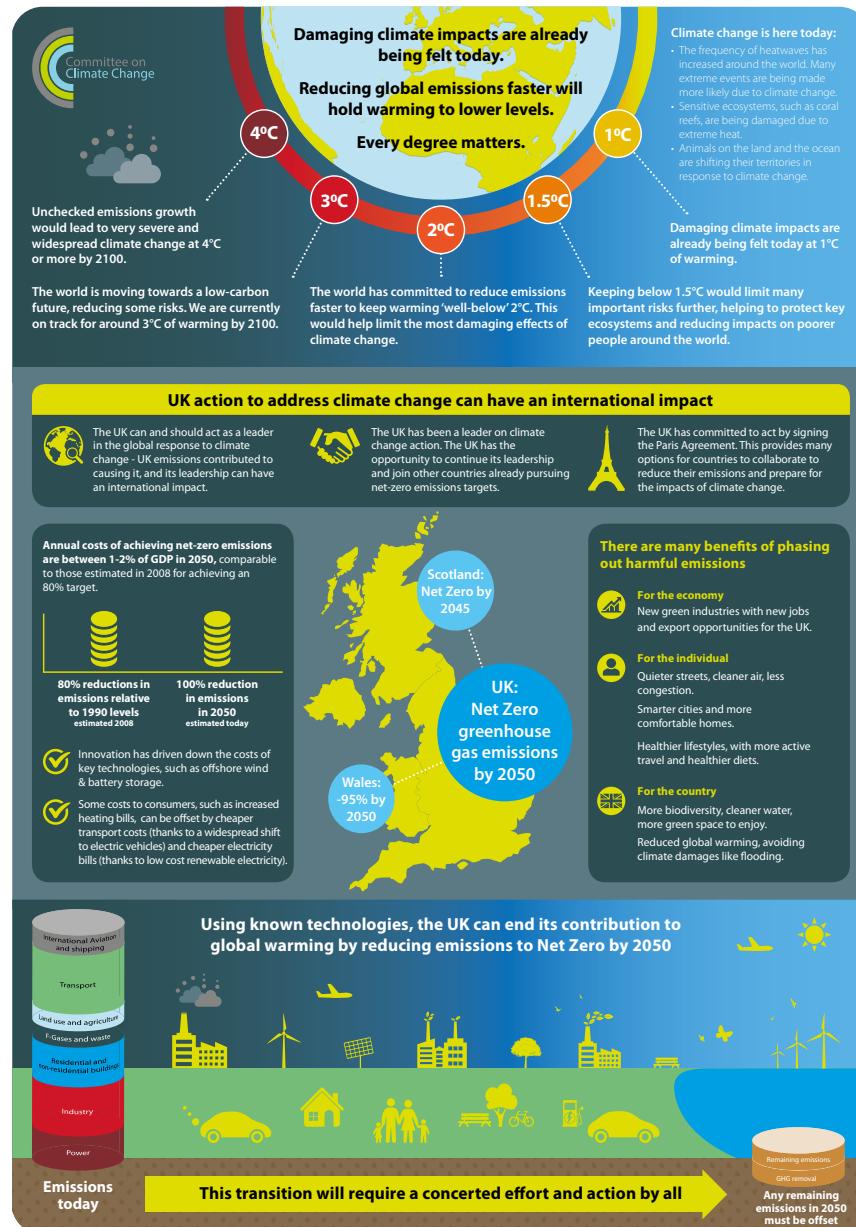


Climate Emergency Strategy

International Agreement And Commitment To Tackling Climate Change

In 2015 the UK government joined an overwhelming majority of countries from around the world by signing the Paris Agreement. This consensus acknowledged the scientific advice and evidence of thousands of the world's best climate scientists and the need to ensure the average temperature of the earth's surface warms by no more than 1.5°C from the earth's temperature in approximately 1850-1900 (pre-industrial levels). The earth's average temperature is currently approximately 15°C. This shows why the constant human activity which causes additional increases to the global average temperature (in addition to any irregular but essential natural events that have a warming effect e.g. volcanic eruptions) must be addressed by mankind's next evolution to a new low carbon age. Reducing emissions to safe levels can be done with existing technologies and knowledge. Governments know the cost and risk of inaction far outweighs the cost of action. After advice from the Committee on Climate Change, the UK government amended the Climate Change Act and made reaching a target of 'net zero' emissions by 2050 a binding target.

[www.theccc.org.uk/publication/netzero-the-uks-contribution-to-stopping-global-warming/#infographic](http://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/#infographic)



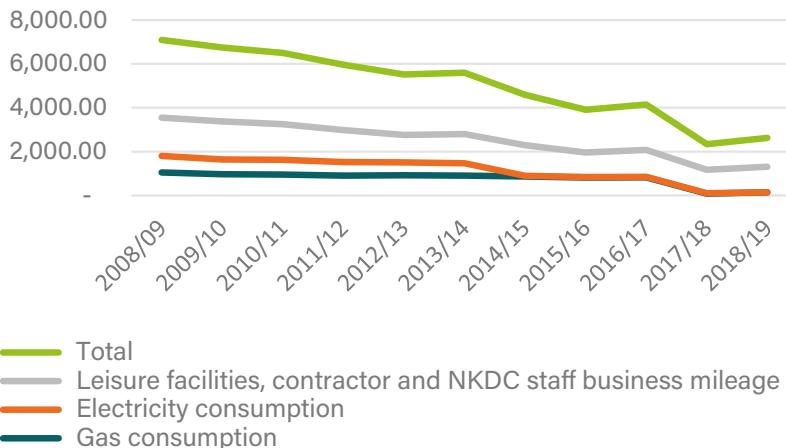
North Kesteven District Council Emissions



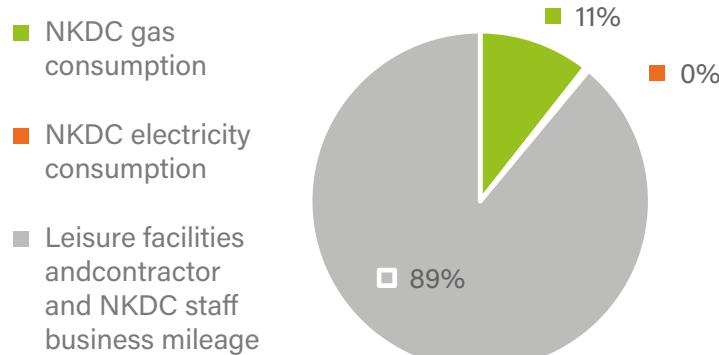
**2008/09-2018/19
63% reduction 2018/19**

Remaining emissions
1311 tonnes CO2e

NKDC Greenhouse Gas Emissions
(tonnes)



NKDC's Remaining Sources of Greenhouse Gas Emissions 2018/19



- Aim** - To become a carbon neutral council by 2030
- Target** - Net zero by 2030
95% reduction by 2030
Offset remaining emissions in 2030

North Kesteven District Council – Our Impacts And Assets



7752 trees

Carbon sequestered 68.38t p/yr. Carbon stored 2358.88t. Estimate to replace our trees like for like - £9,209,590.



Leisure and culture facilities



Business units

Council homes

and sheltered housing schemes



Lafford Homes

private homes for sale and rent

4 woodlands

(Tunman Wood, Godson's Holt, Canterbury Drive Washingborough, Edward Barker Rd Heighington)

Open spaces

including closed church yards



Nature Reserves

(Millennium Green, Station Rd, Waddington. Lollycocks, Sleaford. Whisby Nature Park. Witham Valley Country Park)

Sleaford offices and Metheringham depot



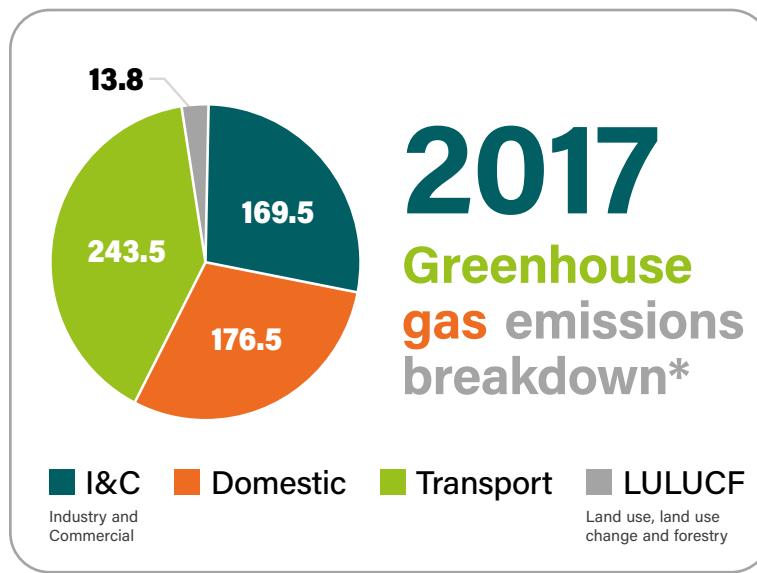
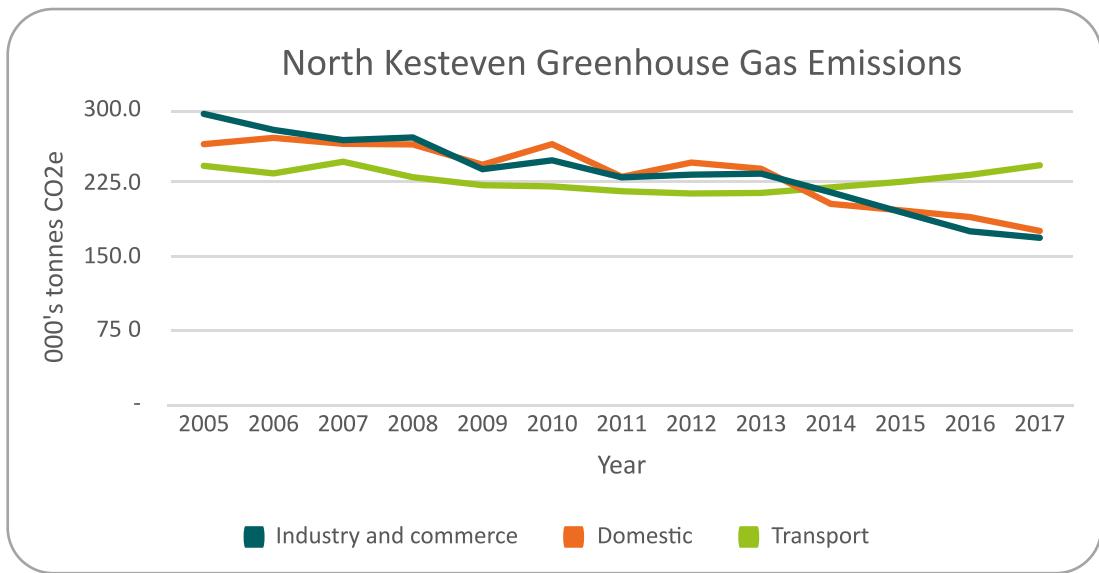
Fleet – waste and recycling vehicles and owner drivers

The District of North Kesteven



2005-2017
27.4% reduction

Remaining emissions
603,251 tonnes CO₂e



Aim

- To support partners, residents, and local businesses to achieve carbon neutrality with an aspirational timeframe of 2030

Target

- 95% reduction in carbon emissions from energy
- Offset remaining emissions in 2030

North Kesteven – District Impacts

Commutes

drive 75%, 9% travel on foot, car passenger 5%, bike 4%, bus 3%



4.4%

increase in train journeys
in the last 2 years



3,088

renewable energy generation sites

305,201

MWh renewable energy generation



90%

agriculture/pasture,
6% development, 4% Tree cover



11,000 (23%)
households living off the gas grid



51,450
current homes, plus Local Plan/
future housing supply



39%
of current homes are well insulated



3,539

households living in fuel poverty



4,645
businesses

60 schools



116,000 residents



3 strategic employment locations:

Teal Park (North Hykeham – Siemens, Greenray),
Network 46 (Witham St Hughs - Turbine Efficiency, Frontier, Apogee, DPD)
and Sleaford Enterprise Park (Bailey Trailers, SHD Composites Ltd, Kiowa).



Other major employers outside
these towns include the
armed forces (RAF Cranwell,
Waddington and Digby), three
major food processing factories
- Moy Park (Anwick), Tulip
(Ruskington) and Branston
Potatoes (Branston), as well
as Mid UK Recycling (Sleaford
and South Hykeham) and
Kisimul School (Swinderby).

Based on data published by the Department for Business Energy and Industrial Strategy (figures are '000s tonnes CO₂e) Greenhouse gas emissions breakdown

Climate Emergency Strategy

Strategic Aims:

- 1) To become a carbon neutral council by 2030
- 2) To support partners, residents, and local businesses to achieve carbon neutrality with an aspirational timeframe of 2030

| How do we achieve that? | | | |
|--|--|--|--|
| TOPIC (i.e. area of life or operations) | COMMITMENT We will... | ACTION By doing... | OUTCOME Which will achieve... |
| DECISION MAKING/ SERVICE DELIVERY | Ensure the Council is at the forefront of climate change strategy development within the local government sector and has a robust approach to decision making reflecting our targets for 2030. | Investigating and presenting the best available information on how options contribute to or counter our environment ambitions. | Climate emergency and 'net zero' emissions targets fully integrated into corporate decision making and service delivery. |
| | | Developing a new strategic climate emergency risk. | |
| | | Reviewing procurement policy and procedure in line with declaring a climate emergency | |
| BUILT ENVIRONMENT/ PLANNING | Increase development standards both for the Council's own investments and developments taking place in other sectors of the local economy as part of improving the overall design and quality of new build developments. | Increasing local housing standards via Local Plan evidence base as part of Local Plan review. | New developments which are class leading in terms of efficiency and minimal greenhouse gas emissions which are fit for the future. |
| | | Developing new council house building standards and perform options appraisals along with a whole life cycle analysis on new council investments. | |
| | | Lobbying and influencing improved Building Regulations. | |
| TRANSPORT | Develop sustainable travel solutions by working with the council's strategic partners. | Using sustainable or the most efficient travel options available within the Council. Implementing the Lincoln and Sleaford Transport action plans. | More flexible and low emissions travel options as well as less mileage/reduced emissions from both business and commuter travel. |
| ENERGY, CARBON CAPTURE & OFFSETTING | Increase renewable energy production and green infrastructure provision to compensate and absorb greenhouse gas emissions. | Identifying and delivering renewable energy projects where viable. Managing NKDC land and working with partners, so as to counter greenhouse gas emissions which cannot be eliminated. | Reduced emissions from energy production and the introduction of carbon capture initiatives. |
| WASTE & WATER | Reduce waste production and improve reuse and recycling | Supporting a Lincolnshire Waste strategy and Lincolnshire Waste Partnership action plan. Developing new approaches to reducing the council's own waste. | Preservation of natural resources and reduced emissions associated with disposal. |
| HEALTH, WELLBEING & COMMUNITIES | Support communities to adopt initiatives to improve their health and wellbeing and adoption of climate change initiatives. | Promoting reduced air pollution and health benefits of active travel. Establishing the most effective measures that can be taken by householders to achieve climate change targets. Improving communication with communities on air pollution and the measures they can take to improve it. | Healthy, well informed communities supporting initiatives to achieve climate change targets and engaged with the benefits of the natural environment. |
| THE NATURAL ENVIRONMENT | Improve ecosystems, biodiversity, and ecological networks across the district | Implementing Open Space and Tree Strategies and reviewing grounds maintenance contracts to enhance the natural environment and provide opportunities for sequestration. Increasing biodiversity and green infrastructure in open spaces and within new developments. | Increased tree canopy cover, protected/improved biodiversity, ecosystem services and interconnected green infrastructure in urban and rural areas. |
| ECONOMY & EMPLOYMENT FINANCE & INVESTMENT | Securing economic and sustainable growth within the District. | Implementing the revised central Lincolnshire Local Plan based on delivering sustainable growth across the plan area. Promoting and supporting the growth of a local green economy by improving and investing in employment land and commercial buildings and decentralised energy projects. Working with local businesses to establish the most effective measures that can be taken to achieve climate change targets. | Continued and increased investment into projects which contribute to the local economy and job creation alongside an ongoing reduction in greenhouse gas emissions, and improved resource efficiency in the commercial sector. |
| ADAPTATION & RESILIENCE | Work to improve the resilience of services, communities, the built and natural environments to the effects of Climate Change | Improve land use to provide the ecosystem services that support humans and nature to be more resilient to the effects of climate change. Factor climate adaptation in NKDC new build standards review and support communities to include in Neighbourhood Plans. | Improved ecosystem services, supporting business continuity and more resilient natural environments. |

Climate Emergency Strategy

Challenges

Delivering against this agenda will have many challenges and each action we take will have its own. However below are a selection of the headline challenges that affect this strategy's aims and which will need to be further investigated and addressed as we work through delivery of the actions within the Climate Emergency Action Plan.

Delivering adaptation to the effects of climate change and implementing measures to reduce environmental impact alongside sustainable development

Sustainable development is the cornerstone of the Council's growth ambition. As a planning authority, North Kesteven District Council is already actively working with its partners to investigate the role of the Central Lincolnshire Local Plan (which sets out local development to 2040) in addressing climate change and to investigate the implications of a carbon neutral plan. Experts have been commissioned to build up a clear and robust picture of the carbon implications of the Local Plan, and the options for how the plan might reduce or negate these. Additionally, the council continues to aim to be an exemplar, showcasing the measures that can be taken and constantly working to reduce the impact on the climate and environment by the assets we own and build.

Tackling domestic energy use, particularly consumption in a rural district with properties off grid

Around a third of North Kesteven's emissions comes from the energy used to power and heat homes. To take forward investigations into the action we can take to tackle this issue, North Kesteven District Council intends to commission experts to explore the relationship between income and energy consumption, identifying hot spots for energy use, and those at risk of fuel poverty.

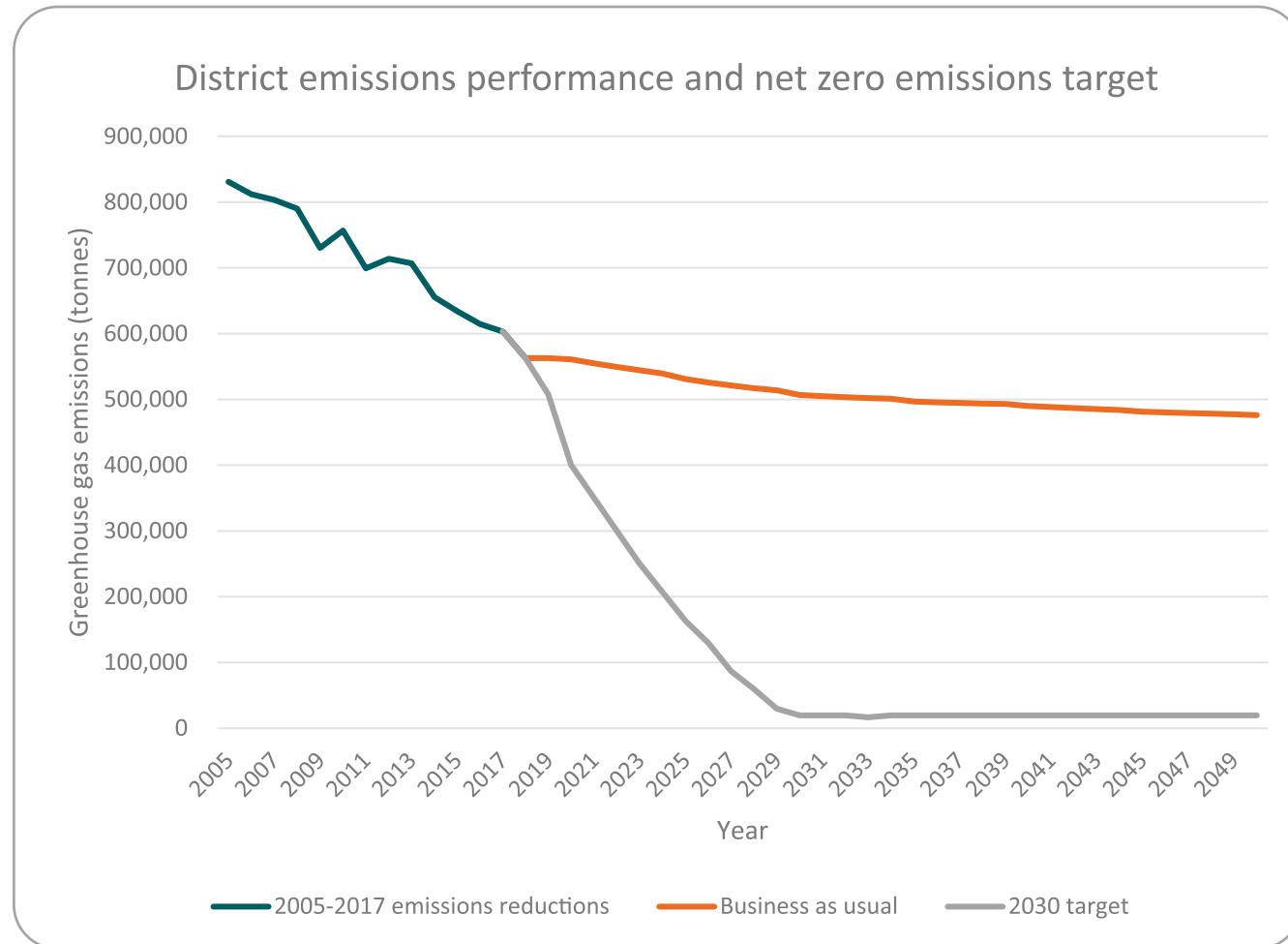
Identifying the emissions from Land Use, Land Use Change and Forestry

Due to North Kesteven's proportion of agricultural land use, understanding emissions from agriculture, land use, soil carbon emissions is required. The Department of Business and Industrial Strategy data that is used to monitor emissions in North Kesteven, does not currently provide this information. Therefore North Kesteven District Council intends to determine what information is held locally, and potentially commission experts to produce a rural land & agriculture emissions profile & scenario analysis to inform delivery of the strategy.

Identifying appropriate carbon offsetting measures

The ambitious 2030 'net zero' target for the district set in this strategy will require offsetting and/or negative emissions technologies to net/catch the emissions that cannot be eliminated. This can be done by increasing the rate of carbon sequestration through changes in land use and forestry and also through geoengineering techniques such as carbon capture and storage. Work to identify the most appropriate and technologically sound measures will need to be undertaken, including investigating the opportunities of environmental land management schemes in a local context e.g. North Kesteven would benefit from an increase in grassland in addition to trees and forests.

District Emissions Performance and Net Zero Emissions Target



This graph shows the district's actual emissions performance to 2017, along with doing nothing and this strategy's net zero by 2030 target.

2005-2017

Emissions reductions

- The teal line shows how carbon dioxide emissions in North Kesteven have reduced by 27.35% since 2005. This is based on the data annually published by the Department for Business Energy and Industrial Strategy (BEIS).

Business as Usual

- The orange line gives an indication of how little district emissions would likely reduce if we carried on business as usual.

Net zero by 2030 target

- The grey line shows this strategy's aspirational target for district emissions. 'Net zero' is defined as reducing carbon dioxide emissions by 95%, leaving 5% to be net/caught. Progress will continue to be monitored using BEIS data.

Climate Emergency Strategy

Target Setting And Action Planning

Scientific basis for net zero targets

The net zero by 2030 targets in this strategy are based on the Paris Climate Change Agreement and the work of the Intergovernmental Panel on Climate Change; a UN body comprising thousands of international scientists who provide governments with regular reports on the best available science to support the development of climate policies. Its Special Report Global Warming of 1.5°C, published in October 2018, was the first report in response to the Paris Climate Agreement. It outlined that to limit warming to 1.5°C, a rapid and unprecedented decarbonisation of our entire economy and society would be required, before 2030. Net zero accounts for the fact that it is unlikely that it will be possible to eliminate all district emissions and those that remain at 2030 will need to be offset.

Scope of net zero targets

We have chosen to focus on CO₂ emissions because it is the greenhouse gas which humans emit most through their activities and it is the data most readily available enabling us to monitor changes.

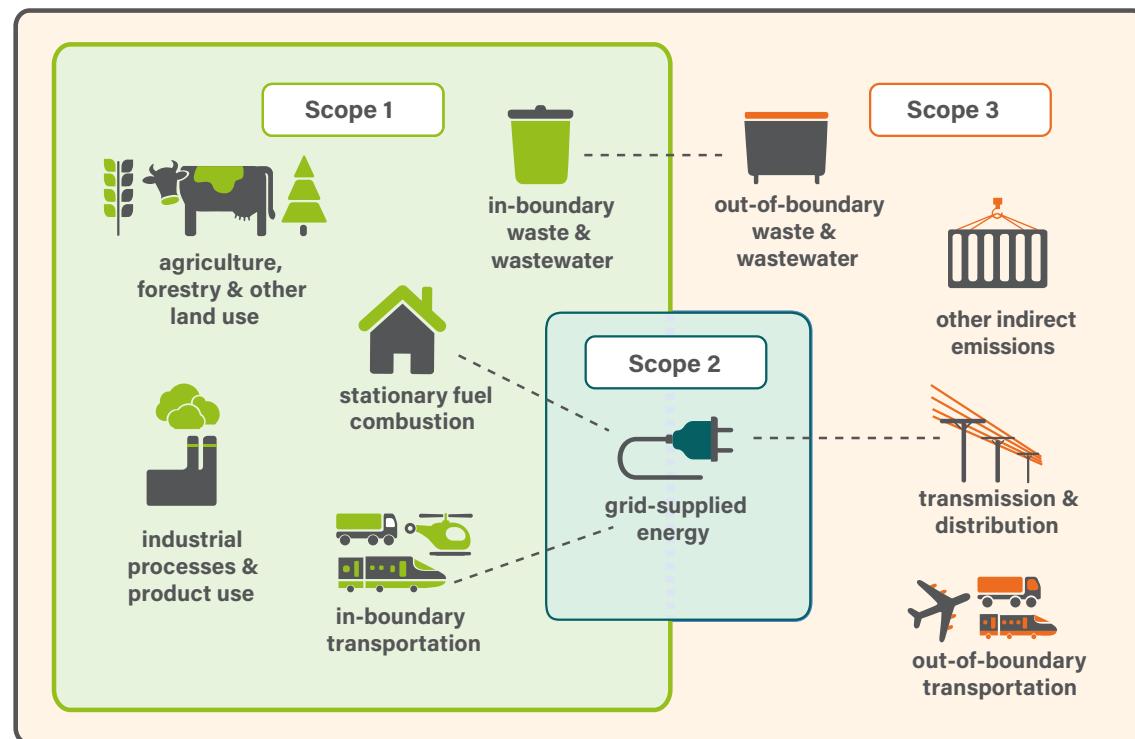
Sources of greenhouse gas emissions are grouped into three scopes, this helps identify their source, and who has the influence to tackle them. The net zero by 2030 emissions target in this strategy for the district, focuses on tackling district emissions within scopes 1 and 2; those things that produce emissions within the district's boundaries.

North Kesteven District Council's net zero by 2030 target also includes other indirect emissions under scope 3. This is simply because colleague business miles and emissions generated by the contractors who deliver services for us, fall under scope 3, and we have always included these in our carbon footprint because of our ability to influence them.

Approach to meeting net zero emissions

Because the 'net zero' by 2030 targets in this strategy are focused on carbon dioxide emissions, The Tyndall Centre for Climate Research's approach provides a framework which has been used as the basis for action planning. The approach is as follows;

- Reduce CO₂ emissions from energy to net zero – Reduce consumption and increasing energy efficiency
- Monitor emissions and removals of CO₂ from Land Use, Land Use Change and Forestry – Increase CO₂ capture and storage by high levels of tree planting, forestry improvements, and forestry management to compensate for non-CO₂ emissions which cannot be eliminated e.g. agriculture. Trees are vital, but there is a need to consider all natural storage options suited to the district.
- Reduce non-CO₂ emissions – It is essential that all greenhouse gas emissions are reduced. It is necessary to seek sources of data for these emissions to tackle them through, for example, Land Use, Land Use Change and Forestry to absorb CO₂ sufficient to help compensate for non-CO₂ emissions



Climate Emergency Strategy

Net zero by 2030 target and the district's contribution to the Paris Agreement

Based on North Kesteven's fair share of total national emissions and the reductions already achieved in the district to date, the Tyndall Centre also suggest that to make its fair contribution to the commitment in the Paris Climate Agreement to keep global emissions increases well below 2°C, North Kesteven emissions should reduce to net zero by 2041. Therefore this strategy's aspirational target is to reach net zero by 2030.

How Actions have been developed and resources committed to delivery

On the 14th November 2019 a Climate Emergency workshop was held for the approximately forty five colleagues on North Kesteven District Council's existing Our Environment priority working groups. Colleagues and external partners were primarily asked, having declared there to be a climate emergency, what action did they believe could and should be taken now, within five years, and within ten years. Along with considering the available opportunities, and how and who would deliver the actions stated. The outcomes from the workshop event were collated into a draft Our Climate Action Plan.

In February and March 2020 the draft action plan was presented to North Kesteven District Council's Heads of Service and their team managers, and this Climate Emergency Strategy and Action Plan, compiled by those who will deliver it was produced. In July 2020 the Strategy and Action Plan was considered by the Executive Board and scrutinised by NKDC's Environment Overview and Scrutiny Panel.

This strategy and Action Plan will also be subject to public consultation in 2020/21.

The resulting Strategy and Action Plan provides the starting point for emergency action and for more detailed investigations to develop high level and longer term actions. It is important that we use the first year to test out the immediate actions and their robustness.

Tackling all greenhouse gas emissions

The department for Business Energy and Industrial Strategy (BEIS) publishes annual emissions data from activities in North Kesteven, but it only covers carbon dioxide emissions. The BEIS data is therefore sufficient for continuing to monitor progress to this strategy's net zero CO₂ emissions by 2030 target, but alone provides a very narrow view of the greenhouse gas emissions released in the district. Therefore we have used the Setting Areas Targets and Trajectories for Emissions Reduction tool (SCATTER), available to local authorities, which provides an inventory of district emissions covering carbon dioxide, methane and nitrous oxide. This data has been used to better focus action planning.

In addition to more detailed emissions data, the tool enables local authorities to produce an indicative list of high level district wide interventions which provide a starting point for more detailed investigations. These interventions have been included at the end of the Action Plan. During the first year of delivery this list will be reviewed in the context of North Kesteven to inform continued action planning.

Monitoring progress

Overview and monitoring of delivery will take the form of quarterly and annual reports to North Kesteven District Council's Environment Overview and Scrutiny Panel, and to its Executive Board. This approach will enable the strategy to be reviewed at the end of each financial year, and will inform a better understanding of the expected emissions savings from the actions and projects which have been delivered and have been approved for delivery.

Monitoring emissions performance

Each year the Department for Business, Energy & Industrial Strategy release local authority carbon emissions data (there is always a two-year lag in the publication of each year's data e.g. 2020 data will not be published until 2022). For many years North Kesteven District Council has used this data each year to monitor how emissions in North Kesteven have changed since 2005, and will continue to do so to monitor progress towards this strategy's target to achieve carbon neutrality within the aspirational timeframe of 2030. 2017 is the latest data available at the time of writing this strategy. From 2017, district CO₂ emissions will need to reduce by an average of 5.5% of 2005 emissions levels. This figure will need to be reviewed annually.

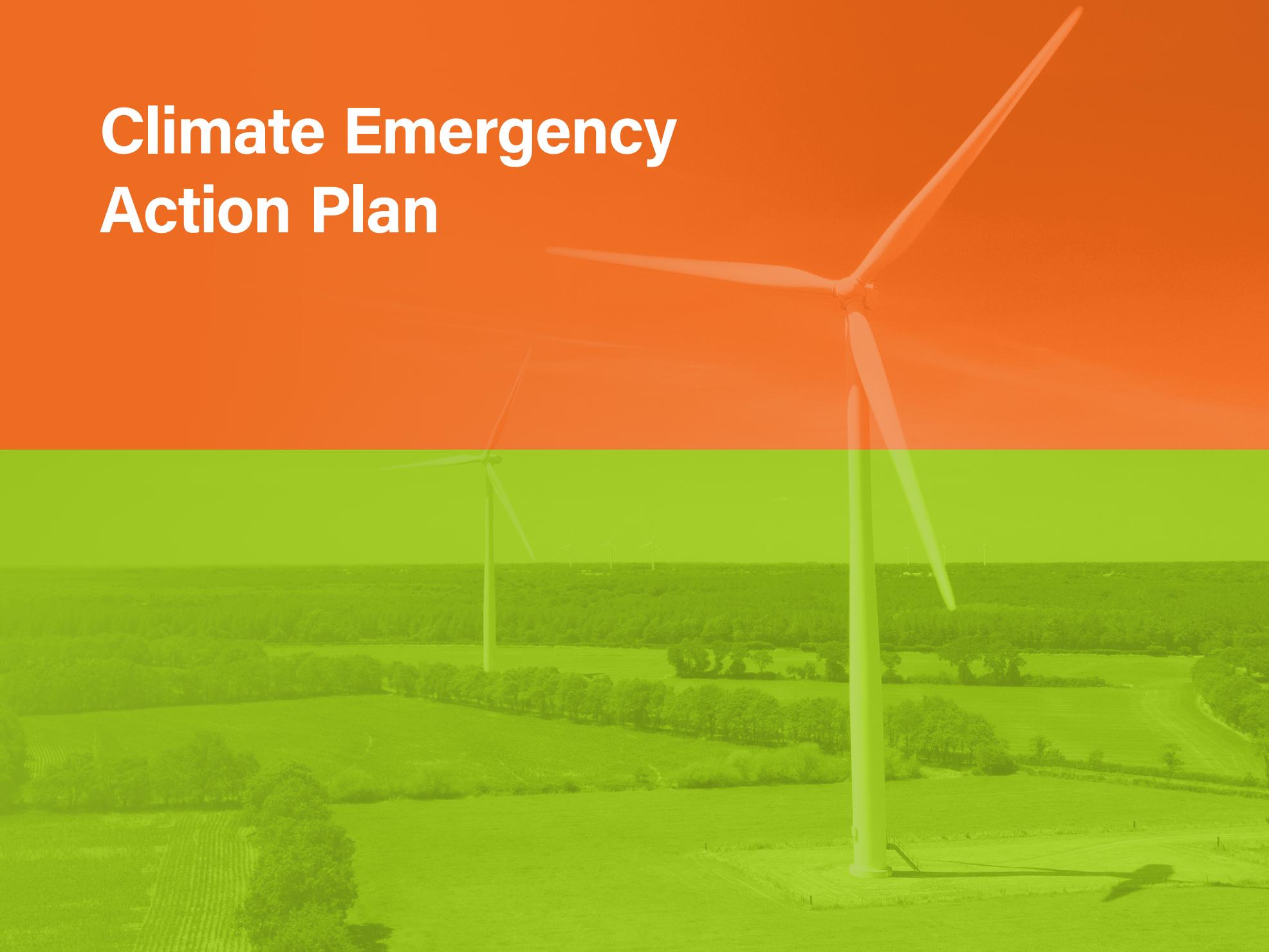
Actions within the action plan

The first year of implementation would see the Council developing detailed recommendations for many of the areas contained in the action plan to be sure of current best practice and their implications for climate change.

Some actions identified for immediate implementation are essential to change behaviours and mind sets, but it would be difficult to measure the contribution these make to reducing greenhouse gas emissions or improving the natural environment and monitoring be to the extent only whether or not these have been delivered in the timescales set in the Action Plan.

The Action Plan contains a large number of actions, with a wide range of possible scales, costs and timetables. A number of actions are expected to fulfil the criteria to be defined as a project, so that they will be fully managed from conception to delivery, using the embedded NKDC project management methodology. Other actions should still utilise elements of project management methodology, but will not necessarily require full-scale project management. All actions will be managed to agreed cost, time and quality standards, with oversight from outside the immediate delivery team.

Climate Emergency Action Plan



Climate Emergency Action Plan

Action Plan

The action plan builds on the reductions in district emissions that have already been achieved and our determination to tackle the climate emergency by 2030. Due to the complexity of accurately measuring sources of all greenhouse gas emissions and the exact savings that interventions will achieve, it is not designed to plot an exact course to carbon neutrality. Within the framework of the Tyndall Centre approach, it sets out the actions that have been identified by working in partnership, along with the high level interventions produced by the SCATTER tool that require further investigation. The plan will need to remain under review to stay abreast of changes in emissions, external influences such as national policy and legislation, and the measures available.

The plan's approach prioritises actions which will reduce emissions to ensure we meet net zero emissions by 2030. In line with the approach set out in the strategy and to pursue this target, we will focus on rapidly decreasing CO₂ emissions from energy. Along with the use of natural means of capturing emissions. In addition, the use of negative emissions technologies to capture carbon from the atmosphere and at point of source, along with large offsetting activities will also need to be investigated if we are to reach net zero emissions.

In order to tackle the climate emergency and reach our targets we will need to make decisions based on how proposals contribute or hinder progress. We will need to seek opportunities in both current and future service and project delivery, regularly seeking expert advice and working in partnership to find the best solutions.

The effects of climate change are not future events. North Kesteven's residents, communities, and businesses are already being effected by more and more frequent and intense weather events such as heatwaves, flooding and extreme precipitation (e.g. rain and snow). Actions must be taken to enable individuals and current and future infrastructure to cope with these events.

The actions that follow have been divided into the following categories;

- 1. Decision making and service delivery**
- 2. Built Environment and Planning**
- 3. Transport**
- 4. Energy, Carbon Capture and Offsetting**
- 5. Waste and Water**
- 6. Health, Wellbeing and Communities**
- 7. The Natural Environment**
- 8. Economy and Employment, Finance and Investment**
- 9. Adaptation**

Climate Emergency Action Plan

1. Decision Making and Service Delivery

| Focus | Action | The benefits | How | Who | Implications | When | ALL | CCS | DECS | EPP | F&R | HPS | Status |
|-------|---|---|--|--|---|---------|------|-----------|-----------|-----------|-----------|-----------|--------|
| NKDC | 1.1. Add Climate Emergency as a strategic risk | Ensures that the climate emergency and 'net zero' emissions target is fully integrated in corporate decision making and service delivery and enables resilience and adaptation planning Recognises climate impacts and risks need to be addressed at initial discussion and planning stages, before inclusion in Service Delivery Plans, and not at once idea/project is formed and being put forward for approval (i.e. report and Sustainability Impact stage) | 1.1.1. Add a new strategic Climate emergency risk. Specifically; Failing to achieve emissions reduction targets and Failing to implement adaptation measures | Evonne Rogers Tamara Walters Jason Jarvis Sarah Golembiewski | | 2020/21 | | Lead | | | Secondary | | |
| NKDC | 1.2. Introduce carbon budgets for each division | Facilitates corporate culture to deliver 'net zero' carbon target overseen by Heads of Service Ensures responsibility for emissions sits where most appropriate. Ensures responsibility for reduction sits where it can be built into corporate/district strategies. Ensures responsibility sits where emissions reduction measures can be most appropriately identified and implemented. Links emissions through to sustainability impact assessments with proposals | 1.2.1. Divide corporate greenhouse gas emissions between divisions and integrate into SDPs | Evonne Rogers Tamara Walters Andrew McDonough David Steels Jason Jarvis Michael Gadd | Calculating budgets for divisions | 2020/21 | | Lead | Secondary | Secondary | Secondary | Secondary | |
| NKDC | 1.3. Research best practice | Ensures that all NKDC decisions are in line with Our Environment priority/Climate Emergency declaration/'net zero' emissions target Energy/fuel/greenhouse gas emissions/ cost savings at every opportunity | 1.3.1. Include in environment policy that for all decisions we will investigate and present the best available information and options that are clear how they contribute or are counter to our environment ambitions. | Evonne Rogers Tamara Walters | Increased staff knowledge in their area of work and need to research Need to source external expertise | 2020/21 | Lead | | | | | | |
| NKDC | 1.4. Stop duplication and make more efficient use of council resources | Efficiency of resources and reduced emissions | 1.4.1. Review and cross reference SDPs for duplication and work that contradicts this agenda and is counter to the service delivery plans of other divisions | Evonne Rogers Duncan James Esther Watt Tamara Walters | | 2020/21 | | Lead | | | | | |
| NKDC | 1.5. Undertake robust environmental impact assessments | The impacts of NKDC activity is identified whenever a proposal is put forward for a decision. Ensures the best option to meet ambitions on this agenda are identified | 1.5.1. Add to report templates; How does this report contribute to the Climate emergency and 'net zero' emissions target? 1.5.2. Review and update existing sustainability impact assessment 1.5.3. Include requirements for options appraisals, seeking expert advice, strengthen requirements for adaptation measures. | Evonne Rogers Tamara Walters Marcella Heath Jenni Swift Evonne Rogers Tamara Walters Marcella Heath Jenni Swift Evonne Rogers Tamara Walters Marcella Heath Jenni Swift | | 2020/21 | | Lead | | | | | |
| NKDC | 1.6. Review procurement policy and procedure in line with declaring a climate emergency | Ensuring procurement policy and procedure assists staff to ensure NKDC service delivery and projects meet corporate ambitions and 'net zero' emissions target | 1.6.1. Update procurement policies | Jason Jarvis Sarah Golembiewski Evonne Rogers Tamara Walters | Staff training and guidance | 2020/21 | | Secondary | | | Lead | | |
| NKDC | 1.7. Take a consistent approach to managing NKDC assets | Consistent approach/control of estate energy consumption and maintenance of new technology. Close current gaps in building management and assets not included on register | 1.7.1. Include in environment policy that NKDC will take a consistent approach to the control and management of its estate to ensure it is efficient and resilient. | Evonne Rogers Tamara Walters | | 2020/21 | | Lead | | | | | |

Climate Emergency Action Plan

| | | | | | | | | | |
|----------|--|--|--|---|---------|------|--|--|--|
| NKDC | 18. Divest from fossil fuels | <p>Recognises that financial investment in fossil fuels is a driver of climate change</p> <p>Lead by example</p> | <p>1.8.1. Add to Environment Policy that we will constantly review our financial portfolio, policies and strategies, and work with partners, to reduce investment in fossil fuels and increase investment which supports results in positive environmental outcomes.</p> | <p>Evonne Rogers</p> <p>Tamara Walters</p> | 2020/21 | Lead | | | |
| District | 19. Tell the truth and reinforce environmental attitudes through education | <p>Lead by example.</p> <p>Buy in from residents/businesses.</p> <p>Change expectations and behaviour.</p> <p>Well educated communities.</p> | <p>1.9.1. Be honest with residents, communities and businesses in communications about the size of the challenge and action that needs to be taken</p> <p>1.9.2. Deliver public and industry consultation on action plan</p> | <p>Evonne Rogers</p> <p>Jason Hippisley</p> <p>Tamara Walters</p> <p>Evonne Rogers</p> <p>Jason Hippisley</p> <p>Tamara Walters</p> | 2020/21 | Lead | | | |

Climate Emergency Action Plan

2. The Built Environment

| Focus | Action | The benefits | How | Who | Implications | When | ALL | CCS | DECS | EPP | F&R | HPS | Status |
|-------|--|--|--|---|---|---------|------|-----------|-----------|-----|-----|------|--------|
| NKDC | 2.1. Switch off all lights and electronic devices when not in use | Reduced electricity use and emissions | 2.1.1. Introduce policy that staff are to switch off all lights and electronic equipment when not in use | Evonne Rogers Tamara Walters | Managers will need to lead and enforce within their teams | 2020/21 | Lead | Lead | | | | | |
| NKDC | 2.2. Ban additional kettles/coffee makers and fridges in offices | Reduced energy consumption and emissions | 2.2.1. Introduce insulated kettles or boilers, and a fridge in every kitchen | Michael Gadd Russell Shortland Evonne Rogers Tamara Walters Christine Cooper | Positive cost implications from energy efficiency | 2020/21 | | Secondary | | | | Lead | |
| NKDC | 2.3. Decarbonise heating | Reduced emissions Capitalise on available incentives | 2.3.1. Bring in specialist to assess and do heating options appraisal on all NKDC buildings. Utilise East Midlands Energy Hub and SMART energy programme. Including leisure and culture facilities, workshops and business venues | Michael Gadd Russell Shortland Evonne Rogers Tamara Walters Andrew McDonough Tony Mabbott Michelle Tasker | Initial investigations would be performed by Energy Manager. Financial implications may arise if additional expertise are needed. Potential cost associated with installation are project specific. | 2020/21 | | Secondary | Secondary | | | Lead | |
| NKDC | 2.4. Switch to renewable electricity tariffs | Reduce carbon emissions from energy Influence suppliers, businesses, customers, and contractors | 2.4.1. Investigate instructing GLL to switch electricity tariffs to 100% certified renewable electricity tariff as part of wider contract review | Andrew McDonough Tony Mabbott leisure contractors | Approx £650-1000 p/yr | 2020/21 | | | Lead | | | | |
| NKDC | 2.5. Increase housing standards | Significantly improve house building standards in terms of energy and thermal efficiency, and wellbeing and health of occupants and Influence other developers | 2.5.1. Undertake exercise to establish a carbon neutral specification and compare to Passivhaus 2.5.2. Introduce policy to undertake options appraisal for all new NKDC housing tenders | Michael Gadd Russell Shortland Evonne Rogers Tamara Walters | Cost implications | 2020/21 | | Secondary | | | | Lead | |
| NKDC | 2.6. Increase low energy exterior lighting for street lighting, council housing estates and at leisure sites | Reduced emissions Improved energy efficiency | 2.6.1. Business case for street lighting to be developed for potential 2021/22 budget bid 2.6.2. Investigate options to improve external lighting on council housing estates 2.6.3. Investigate options to improve external lighting at leisure and culture facilities alongside 3.6.1. and 3.6.2. | Michael Gadd Russell Shortland Mervyn Baldry Michael Gadd Russell Shortland Mervyn Baldry Michael Gadd Russell Shortland Mervyn Baldry Andrew McDonough Tony Mabbott Leisure contractors | Additional funding would be required for replacements in addition to the budget general programme of replacement upon failure. Cost implications dependent on project Working in partnership with leisure contractors | 2020/21 | | | Secondary | | | Lead | |

Climate Emergency Action Plan

Climate Emergency Action Plan

| | | | | | | | | | | | |
|------|---|---|---|---|---|----------------|-----------|-----------|--|-----------|-----------|
| NKDC | 2.7. Avoid the most carbon intensive heating fuels in council housing | Reduced emissions | 2.7.1. Include in environment policy the installation of carbon intensive central heating systems in council housing will be avoided and that gas boilers will not be installed from 2025 2.7.2. Consider in relation to business plan renewal due this year | Evonne Rogers Tamara Walters Michael Gadd Russell Shortland | Finding alternative options for off grid properties Recruitment | 2020/21 | Secondary | | | Lead | |
| NKDC | 2.8. Improve the management of our estate and increase our energy expertise | Efficient management of energy supply and consumption. Meter readings and audited energy bills. Efficient daily operation of assets, for increasingly technical buildings. Expertise to determine which new energy projects to pursue, supporting Excite team. | 2.8.1. Employ an energy manager to manage day to day operations in relation to energy consumption and to provide expert advice on improvements and project development | Evonne Rogers Christine Cooper Tamara Walters Jason Jarvis Michael Gadd | Will be paid for via generated financial savings and returns | 2020/21 | Lead | | | Secondary | Secondary |
| NKDC | 2.9. Investigate zero/low emissions building specification options | Reduced emissions towards net zero target | 2.9.1. Include in environment policy that all proposals for new developments will include design spec options appraisals including zero emissions from energy along with a whole life cycle analysis on building cost based on expected life of building/site 2.9.2. Perform options appraisals including zero emissions from energy along with a whole life cycle analysis on building cost based on expected life of building/site | Evonne Rogers Tamara Walters Michael Gadd Russell Shortland Andrew McDonough Alan Gray | | 2020/21 | Lead | Secondary | | Secondary | |
| NKDC | 2.10. All new NKDC building developments to be net zero emissions | Reduced emissions towards net zero target | 2.10.1. All NKDC capital projects to be built to net zero emission or approved alternative specification | Michael Gadd Russell Shortland Andrew McDonough Alan Gray | Design and tender process implications. Limitations in knowledge and architects to design, and builders to build. | Within 5 years | | Secondary | | Lead | |
| NKDC | 2.11. Introduce council house property performance package | Improved thermal and energy efficiency | 2.11.1. Plan to be developed for worst performing council housing 2.11.2. Commission consultant to develop costed options to reduce energy consumption and upgrade insulation on all stock taking a whole building approach. | Michael Gadd Russell Shortland Scott Masterman Michael Gadd Russell Shortland Scott Masterman | Funded through successful budget bid and energy supplier funding | Within 5 years | | | | Lead | |
| NKDC | 2.12. Improve renewable energy generation at leisure buildings | Reduced emissions Potential increased energy security | 2.12.1. Audit leisure buildings to identify renewable energy generation opportunities e.g. installation of solar PV and heat pumps | Jason Jarvis Jackie Kelleher Andrew McDonough Tony Mabbott Leisure contractors Evonne Rogers Tamara Walters | Contracts with leisure contractor Knowledge and external expertise | Within 5 years | Secondary | Secondary | | Lead | |

Climate Emergency Action Plan

| | | | | | | | | | | | | |
|----------|---|---|--|---|--|-----------------|------|-----------|-----------|--|------|--|
| NKDC | 2.13. Stop installing gas boilers in non-domestic NKDC buildings | Decarbonisation of heat and reduced emissions | 2.13.1. Include in environment policy that gas boilers will not be installed in any directly controlled building from 2025 | Evonne Rogers Tamara Walters Michael Gadd Russell Shortland | Need to determine alternative appropriate technologies and funding options | Within 5 years | | | | | Lead | |
| NKDC | 2.14. Decarbonise heating in leisure facilities | Reduce emissions | 2.14.1. Investigate measures to replace gas heating based on equipment replacement and leisure facilities operations contract timescales | Andrew McDonough Tony Mabbott Leisure contractors Jason Jarvis Richard Hunt | Working with contractor within contractual arrangements. Capital outlay will be required, which will be dependent on technology options and on contractual arrangements. | Within 10 years | | Lead | Secondary | | | |
| District | 2.15. Increase local housing standards | Increased energy efficiency | 2.15.1. Investigate increasing local housing standards via Local Plan evidence base as part of Local Plan review. To provide justification for increased standards that reflect net zero emissions ambitions as part of improving the overall design and quality of new build developments through the local plan process. | Andrew McDonough Mark Williels Stephen Priestley | Expertise and training | 2020/21 | | Lead | | | | |
| | | Decarbonisation of heat | 2.15.2. Lobby and influence increasing Building Regulations | Andrew McDonough Mark Williels Stephen Priestley | Change of policy, not waiting on legislative changes. Using existing legislation. Following the example of other authorities and challenging viability on grounds of cost which is counter to evidence that building standards are not fit for the future or climate proof | | | | | | | |
| District | 2.16. Promote local heat network solutions within new build schemes | Decarbonisation of heat | 2.16.1. Facilitate heat networks in new and existing developments | Andrew McDonough Mark Williels Jason Jarvis | | Within 5 years | | Lead | Secondary | | | |
| | | Potential for financial return for communities and NKDC | 2.16.2. Local Plan will likely have a permissive policy framework that can be used to support promotion and there will need to be an evidence base or technology guidance for local authorities to advise and negotiate with developers | Andrew McDonough Mark Williels | | | | | | | | |
| | | | 2.16.3. Investigate scope for a Central Lincolnshire guidance document to support discussions with developers | Andrew McDonough Mark Williels | | | | | | | | |
| District | 2.17. Support residents to use/ swap to low emissions heating solutions | Decarbonisation of heat | 2.17.1. Work with other Lincolnshire authorities via Greater Lincolnshire Energy Efficiency Network to help residents access government schemes | Evonne Rogers Tamara Walters | Negotiating government schemes | Within 5 years | Lead | Secondary | Secondary | | | |
| | | | 2.17.2. Those ineligible for government schemes - Investigate how to have local Domestic Energy Assessors+ to do room by room analysis to size systems correctly | Evonne Rogers Tamara Walters | Finance will need to be involved to determine the cost implications | | | | | | | |
| | | Providing an affordable solution for residents | 2.17.3. Organise training for heating engineers | Evonne Rogers Tamara Walters | | | | | | | | |
| | | | 2.17.4. Investigate financial mechanism to support ineligible residents e.g. low interest loans | Evonne Rogers Tamara Walters Jason Jarvis | Initial cost of investigations reduced by including in Private Housing Enforcement Officer role | | | | | | | |
| | | | 2.17.5. Include this action within the Private Housing Enforcement Officer role | David Steels Ayeisha Kirkham | | | | | | | | |

Climate Emergency Action Plan

3. Transport

| Focus | Action | The benefits | How | Who | Implications | When | ALL | CCS | DECS | EPP | F&R | HPS | Status |
|-------|--|--|---|---|--|---------|-----|-----------|------|-----------|------|------|--------|
| NKDC | 3.1. Encourage more sustainable staff travel and reduce the need for staff to own and use a car for work | Less mileage/reduced emissions from both business and commuter travel | 3.1.1. Add to environment policy that staff must travel by most sustainable and efficient method on council business 3.1.2. Conduct staff travel survey 3.1.3. Conduct personalised travel planning 3.1.4. Improve home working opportunities 3.1.5. Provide public transport taster tickets 3.1.6. Ensure staff can buy E-bikes through current cyclescheme | Evonne Rogers Christine Cooper Evonne Rogers Christine Cooper Evonne Rogers Christine Cooper Evonne Rogers Christine Cooper Evonne Rogers Christine Cooper | | 2020/21 | | Lead | | | | | |
| NKDC | 3.2. Roll out low emissions vehicle fleet | Reduced emissions/fossil fuel use | 3.2.1. Add to environment policy low emissions options appraisal to be undertaken for every new vehicle purchase 3.2.2. Appraise every new vehicle purchase 3.2.3. Include driver and fuel efficiency monitoring equipment in every new vehicle where available and not cost prohibitive | Evonne Rogers Tamara Walters Jason Jarvis Richard Hunt Michael Gadd David Steels Nina Camm David Steels Nina Camm Michael Gadd | Cost implications for vehicle replacements, this is vehicle and technology specific. | 2020/21 | | Secondary | | Lead | Lead | Lead | |
| NKDC | 3.3. Support and incentivise staff to use low emissions vehicles | Speed up roll out of low emissions staff owned vehicles for NKDC business activities Reduction in emissions from staff owned vehicles | 3.3.1. Introduce scheme for staff to purchase low emissions vehicles | Evonne Rogers Hayley Kent-Simpson Christine Cooper Jason Jarvis Richard Hunt | There is an additional cost for Payroll to administer which needs to be determined | 2020/21 | | Lead | | Secondary | | | |

Climate Emergency Action Plan

| | | | | | | | | | | | |
|------|--|---|---|---|--|---------|-----------|--|------|--|--|
| NKDC | 3.4. Introduce super agile working | Reduced mileage Lower home-work miles More space for staff in offices Potential for increased income from available office space | 3.4.1. Remobilisation (Culture) group to review agile working policy | Evonne Rogers Christine Cooper | Potential changes to staff contracts. | 2020/21 | Lead | | | | |
| | | | 3.4.2. Allow staff to work a 4 day week and/or 2 days working from home p/w. | Evonne Rogers Christine Cooper | Liaison with unions. | | | | | | |
| | | | 3.4.3. Allow flexible start times, including starting earlier during summer. | Evonne Rogers Christine Cooper | Need to balance productivity and staff wellbeing | | | | | | |
| | | | 3.4.4. Allow more staff to be considered "home workers" rather than working from home. | Evonne Rogers Christine Cooper | | | | | | | |
| | | | 3.4.5. Provide necessary home working equipment | Evonne Rogers Christine Cooper Cliff Dean | Ensuring staff have right equipment | | | | | | |
| | | | 3.4.6. Include in new corporate Environment Policy | Evonne Rogers Tamara Walters | | | | | | | |
| NKDC | 3.5. Incentivise car user allowances | Reduce emissions from staff business mileage and commute | 3.5.1. Investigate introduction of incentives for using low emissions alternatives e.g. new low emissions vehicle band which is higher than other bands | Jason Jarvis Richard Hunt Evonne Rogers Christine Cooper Tamara Walters | The options and cost implications need to be determined. | 2020/21 | Secondary | | Lead | | |
| NKDC | 3.6. Promote/support sustainable travel options | Reduce emissions from staff business mileage and commute | 3.6.1. Consider how to promote as part of rewards and recognition e.g. zero interest loans on season tickets | Jason Jarvis Simon Curtis Evonne Rogers Christine Cooper | | 2020/21 | Secondary | | Lead | | |
| NKDC | 3.7. Stop unnecessary travel to meetings and utilise virtual/video conference meetings | Save on emissions Improved office time Reduced cost e.g. business mileage payments | 3.7.1 Add to environment policy staff to attend virtual meetings wherever possible | Evonne Rogers Christine Cooper Cliff Dean | | 2020/21 | Lead | | | | |

Climate Emergency Action Plan

| | | | | | | | | | | | |
|----------|---|--|--|--|---|----------------|-----------|------|-----------|--|--|
| NKDC | 3.8. Introduce low emissions/electric pool cars | Reduce emissions from staff business mileage and commute | 3.81. Options appraisal of low emissions pool vehicles | Evonne Rogers | Cost and fleet car management implications need to be investigated | Within 5 years | Lead | | Secondary | | |
| | | | | Tamara Walters | | | | | | | |
| | | | | Jason Jarvis | | | | | | | |
| | | | | Richard Hunt | | | | | | | |
| | | | 3.82. Trial/introduce low emissions pool cars | Evonne Rogers | Potential need for staff training | | | | | | |
| | | | | Tamara Walters | | | | | | | |
| | | | | Jason Jarvis | | | | | | | |
| | | | | Richard Hunt | | | | | | | |
| | | | 3.83. Reintroduce lease car incentive for electric and low emission vehicles | Evonne Rogers | | | | | | | |
| | | | | Tamara Walters | | | | | | | |
| | | | | Jason Jarvis | | | | | | | |
| | | | | Richard Hunt | | | | | | | |
| | | | 3.84. Investigate introduction of low emissions car pool scheme | Evonne Rogers | | | | | | | |
| | | | | Tamara Walters | | | | | | | |
| | | | | Jason Jarvis | | | | | | | |
| | | | | Richard Hunt | | | | | | | |
| District | 3.9. Travel/transport, public information | Influence public behaviour | 3.91 Increase public awareness of electronically available information e.g. apps, and live times | Evonne Rogers Jason Hippisley | | 2020/21 | Lead | | | | |
| District | 3.10. Encourage more agile, remote and smarter workforces | Lower emissions and better air quality | 3.101. Signposting and facilitating business support available through Lincolnshire County Council | Andrew McDonough Alan Gray | | 2020/21 | Lead | | | | |
| District | 3.11. Encourage use of electric vehicles | People will/can make greener transport choices. | 3.111. Increase installation of charging points across district by promoting available grants. | Evonne Rogers Tamara Walters Jason Hippisley | Communications | 2020/21 | Secondary | Lead | | | |
| | | Lower emissions and better air quality. | 3.112. Explore opportunity of installing EV charging points at the SMEP as part of Master planning for site | Andrew McDonough Mark Williets | | | | | | | |
| | | | 3.113. Explore policies that promote domestic charging installation within new developments | Andrew McDonough Mark Williets | | | | | | | |
| | | | | | | | | | | | |
| District | 3.12. Invest in public transport infrastructure | Better transport choices | 3.121 Implement the Lincoln and Sleaford Transport action plans. Including through the Sleaford Strategic Delivery Plan Working Group. | Andrew McDonough | Studies to determine options and costings | Within 5 years | Lead | | | | |
| | | Reduced car ownership | | Alan Gray | Funding will be LCC who will deal with strategic proposals. Funded through s106 agreements with developments. | | | | | | |
| | | | | Sleaford and Lincoln Strategy Boards | Infrastructure | | | | | | |

Climate Emergency Action Plan

4. Energy, Carbon Capture, and Offsetting

| Focus | Action | Benefit | How | Who | Implications | When | All | CCS | DECS | EPP | F&R | HPS | Status |
|----------|--|---|---|-----------------|---|----------------|-----|-----------|------|------|-----------|-----------|--------|
| NKDC | 4.1. Increase renewable energy generation through solar panel installation | Increase renewable energy generation. | 4.1.1. Investigate building and ground mounted options on existing and new property. Capitalise on available incentives. Generate free electricity | Jason Jarvis | Potential need to commission external expertise reduced if Energy Manager recruited. | 2020/21 | | | | | Lead | Secondary | |
| | | Capitalise on available incentives. | | Jackie Kelleher | Capital outlay dependent on specific projects. | | | | | | | | |
| | | Generate free electricity | | Michael Gadd | | | | | | | | | |
| NKDC | 4.2. Increase renewable energy production | Reduced emissions from energy generation. | 4.2.1. Add to environment policy that renewable energy projects and potential delivery will be identified and delivered where viable 4.2.2. Investigate site and land options for renewable energy projects. Produce proposal reports, to consider options, and project plans | Evonne Rogers | Energy Manager post would support investigations and project development. Capital outlay implications dependent on project, available incentives and returns. | Within 5 years | | Secondary | | | Lead | Secondary | |
| | | | | Tamara Walters | | | | | | | | | |
| NKDC | 4.3. Increase green infrastructure and biodiversity to compensate for and absorb the greenhouse gas emissions which the authority cannot eliminate | Increased carbon capture and biodiversity | 4.3.1. Estimate NKDC emissions which cannot be eliminated 4.3.2. Include in environment policy that NKDC land will be managed so as to counter the corporate greenhouse gas emissions which cannot be eliminated 4.3.3. Combine grounds maintenance contract review with investigations into energy generation. Include review of machinery used, and change to cut and collect, to explore options for biomass use (e.g. energy generation). | Evonne Rogers | Need to change attitudes to spaces managed carbon capture and increased biodiversity | Within 5 years | | Secondary | Lead | Lead | Secondary | Lead | |
| | | | | Tamara Walters | | | | | | | | | |
| | | | | Evonne Rogers | | | | | | | | | |
| District | 4.4. Increase renewable energy production | Decarbonisation of energy | 4.4.1. Investigate available local energy data and information to understand local natural resources | Evonne Rogers | | Within 5 years | | Lead | | | Secondary | | |
| | | Using local energy resources | | Tamara Walters | | | | | | | | | |
| District | 4.5. Explore biomass project opportunities | Decentralising decarbonisation of energy | 4.5.1. Commission agriculture and land use study | Evonne Rogers | Potential longer term costs to use APSE and East Midlands Energy Hub to support detailed investigations and development. | Within 5 years | | Lead | | | Secondary | | |
| | | Using local energy resources | | Jason Jarvis | | | | | | | | | |
| | | Supporting communities to apply for available funding | | Jackie Kelleher | | | | | | | | | |
| District | 4.6. Increase green infrastructure to compensate for and absorb non-CO ₂ greenhouse gas emissions that cannot be reduced to zero | Potential for financial returns | 4.5.2. Work with East Midlands Energy Hub and other external partners to determine opportunities and funding options | Jason Jarvis | Capital outlay implications dependent on project, available incentives, external funding and returns. | Within 5 years | | Lead | | | Secondary | | |
| | | Increased carbon capture and biodiversity | | Tamara Walters | | | | | | | | | |
| | | Determine emissions to be countered | | Evonne Rogers | | | | | | | | | |
| | | Commission agriculture and land use study | | Tamara Walters | | | | | | | | | |
| District | 4.6.3. Engagement private land owners/managers | Engagement private land owners/managers | 4.6.3. Engagement private land owners/managers | Evonne Rogers | Need to change attitudes to spaces managed carbon capture and increased biodiversity | 2020/21 | | Secondary | Lead | | | | |
| | | | | Tamara Walters | | | | | | | | | |

Climate Emergency Action Plan

5. Waste and Water

| Focus | Action | The benefits | How | Who | Implications | When | ALL | CCS | DECS | EPP | F&R | HPS | Status |
|----------|--|--|---|--|--|---------|------|-----------|------|------|-----|-----------|--------|
| NKDC | 5.1. Ensure compulsory recycling within NKDC offices | Protection of natural resources Increased recycling | 5.1.1. Add to environment policy that staff must not contaminate waste bins with recycling and use recycling bins in kitchens provided 5.1.2. Reduce the number of waste bins in offices to one 5.1.3. Enforce by advising managers when bins are contaminated | Evonne Rogers Tamara Walters Michael Gadd Russell Shortland Michael Gadd Russell Shortland | | 2020/21 | Lead | Secondary | | | | Lead | |
| NKDC | 5.2. Ensure compulsory reuse of office equipment | Reduced disposal of reusable items | 5.2.1. Add to environment policy that reusable items must be offered to staff or external organisations before being disposed 5.2.2. Each department to find most appropriate outlet | Evonne Rogers Tamara Walters Evonne Rogers Jason Jarvis David Steels Andrew McDonough Michael Gadd | Finding internal and external outlets. | 2020/21 | Lead | | | | | | |
| NKDC | 5.3. Reduce paper use | Protection of natural resources | 5.3.1. Add to environment policy staff must consider reason for printing and the length of life of the document before disposal, printing only if absolutely necessary 5.3.2. Review purchase/spend on paper and associated equipment 5.3.3. Constantly review disposal by team | Evonne Rogers Tamara Walters Jason Jarvis Richard Hunt Michael Gadd Russell Shortland | Staff education | 2020/21 | Lead | Secondary | | | | Secondary | |
| NKDC | 5.4. Ensure efficient water management | Protection of natural resources Reduced emissions from water treatment and management | 5.4.1. Add to corporate environment policy that options for minimising water use and waste water production will be considered for existing NKDC homes and offices, and with contractors for leisure and culture facilities | Evonne Rogers Tamara Walters | Review options during design specification setting and upgrade works. Discussions and possible incorporation into contracts with external contractors. | 2020/21 | Lead | | | | | | |
| District | 5.5. Improve recycling quality | Preservation of natural resources A commodity that has a value | 5.5.1. Improve education and communication of finite natural materials 5.5.2. Support delivery of Lincolnshire Waste Partnership action plan e.g. introducing paper and card bins, which is evolving | David Steels Nina Camm Evonne Rogers Jason Hippisley David Steels Nina Camm | Public engagement and behaviour change | 2020/21 | | Secondary | | Lead | | | |
| District | 5.6. Reduce waste production and improve reuse and recycling | Preservation of natural resources | 5.6.1. Delivered through Lincolnshire Waste strategy and Lincolnshire Waste Partnership action plan | David Steels Nina Camm Evonne Rogers Jason Hippisley Lincolnshire Waste Partnership | | 2020/21 | | Secondary | | Lead | | | |
| District | 5.7. Reduce flytipping | Better informed public Behaviour change leading to reduction in incidences of pollution of natural environment with waste | 5.7.1. Support a joint campaign and targeted approach to reduce fly tipping across Lincolnshire | David Steels Ayeisha Kirkham | Working with other agencies such as the Police/ National Farmers Union/ Environment Agency and Other Districts. | 2020/21 | | | | Lead | | | |
| District | 5.8. Improve water management | Better informed public Behaviour change leading to reduction in water use and waste water generation | 5.8.1. Support and promote Anglian Water campaigns | Evonne Rogers Jason Hippisley | Liaison with Anglian Water's communications team | 2020/21 | Lead | | | | | | |

Climate Emergency Action Plan

6. Health, Wellbeing and Communities

| Focus | Action | The benefits | How | Who | Implications | When | ALL | CCS | DECS | EPP | F&R | HPS | Status |
|----------|--|---|--|--|---|-------------------------------|------|------|------|-----------|-----|-----------|--------|
| NKDC | 6.1. Reduce emissions and improve air pollution from idling vehicles | Reduced emissions particularly at peak times | 6.1.1. Add to environment policy no-idling for all vehicles on NKDC business 6.1.2. Advise contractors of updated policy 6.1.3. Advise staff driving NKDC vehicles and owner drivers | Evonne Rogers Tamara Walters Michael Gadd Evonne Rogers Christine Cooper David Steels Nina Camm | Contractual arrangements Getting buy in from contractors Add to new contract specifications Communication and education of staff | 2020/21 | | Lead | | Secondary | | Secondary | |
| District | 6.2. Encourage people to stop taking short journeys by car | Reduced emissions from highest proportion of journeys | 6.2.1. Promote reduced air pollution and health benefits of active travel | Evonne Rogers Tamara Walters Jason Hippisley | | 2020/21 | Lead | | | | | | |
| District | 6.3. Create no idling zones | Improved awareness about air pollution and emissions Behaviour change Reduced emissions especially at peak times and outside of schools | 6.3.1. Air quality action days 6.3.2. Put up signage/publicity at bottlenecks/major junctions and pollution hot spots | Evonne Rogers Tamara Walters Jason Hippisley David Steels Ayeisha Kirkham David Steels Ayeisha Kirkham | Dependant on LCC buy in. Cost of signage | 2020/21 Within 5 years | Lead | | Lead | | | | |

Climate Emergency Action Plan

7. The Natural Environment

| Focus | Action | The benefits | How | Who | Implications | When | ALL | CCS | DECS | EPP | F&R | HPS | Status |
|-------|--|---|--|--|--|----------------|-----------|-----------|------|-----------|-----------|------|--------|
| NKDC | 7.1. Improve management of council land so it provides the ecosystem services that support humans and nature to be more resilient to the effects of Climate Change | Improved water/flood management Improved health & wellbeing | 7.1.1. Implement Open Space Strategy and open space review and improvement work. Introduce NKDC Tree strategy and policy. 7.1.2. Review land within existing and new NKDC housing developments and identify opportunities to increase and improve green and biodiverse infrastructure. | Andrew McDonough Mark Williets Michelle Hoyles Michael Gadd | Positive cost implications through reduced maintenance | Within 5 years | | Secondary | Lead | Lead | Secondary | Lead | |
| NKDC | 7.2. Improve management of council land so it provides the ecosystem services that support humans and nature to be more resilient to the effects of Climate Change | Reduced contractor time/cost Improved biodiversity and ecosystem services | 7.2.1. Apply for available funding e.g. for tree planting | Evonne Rogers Tamara Walters | | Within 5 years | Secondary | Lead | Lead | Lead | Secondary | Lead | |
| NKDC | 7.3. Stop buying cut Christmas trees | Species that are better for biodiversity and climate change grown Reduced mileage/emissions More trees planted Education and promotion | 7.3.1. Create a woodland scene of smaller potted trees (non-conifer species) as a woodland display that are planted afterwards either on NKDC land or the community | Andrew McDonough Graham Wilson Michael Gadd Russell Shortland | Cost implications dependent on trees purchased and design. Designing the display Communication / promotion | 2020/21 | | | Lead | | | Lead | |
| NKDC | 7.4. Increase green infrastructure and biodiversity to compensate for and absorb the greenhouse gas emissions which the authority cannot eliminate | Increased carbon capture and biodiversity | 7.4.1. Apply for available funding e.g. for tree planting 7.4.2. Review grounds maintenance contract in line with NKDC Tree Policy and Open Space Strategy. Investigate introducing a 'stepped disturbance' model of management (trees, understory planting, grasses and flowers, with limited cutting as necessary and only to provide paths not open cut space). 7.4.3. Implement Open Space Strategy and open space review and improvement work. Introduce NKDC Tree strategy and policy. 7.4.4. Review land within existing and new NKDC housing developments and identify opportunities to increase and improve green and biodiverse infrastructure. | Evonne Rogers Tamara Walters David Steels Nina Camm Andrew McDonough Mark Williets Michelle Hoyles Michael Gadd | Need to change attitudes to spaces managed carbon capture and increased biodiversity | Within 5 years | Secondary | Lead | Lead | Secondary | Lead | | |

Climate Emergency Action Plan

| District | 7.5. Increase green infrastructure to compensate for and absorb non-CO ₂ greenhouse gas emissions that cannot be reduced to zero | Increased carbon capture and biodiversity Support biodiversity and ecosystem services | 7.5.1. As part of the Local Plan review explore opportunities for a green infrastructure policy requirement 7.5.2. Increase biodiverse and green infrastructure in open spaces and within new developments 7.5.3. Work in partnership with Lincolnshire Wildlife Trust and Greater Lincolnshire Nature Partnership to provide for natural space appropriate to the wider landscape to ensure that the ecological network is enhanced 7.5.4. Stipulate developers include SUDS and high levels of connected green infrastructure. 7.5.5. Promote available grants and encourage take up of funding | Andrew McDonough Mark Williets Andrew McDonough Mark Williets Andrew McDonough Mark Williets Andrew McDonough Mark Williets | Need to change attitudes to spaces managed carbon capture and increased biodiversity | 2020/21 | Secondary | Lead | | |
|----------|--|---|---|--|--|-----------------|-----------|------|--|--|
| District | 7.6. Encourage land managers to manage land to compensate for and absorb non-CO ₂ greenhouse gas emissions that cannot be reduced to zero | Increased natural capital and biodiversity Carbon sequestration to offset emissions which cannot be eliminated Reaching net zero emissions target | 7.6.1. Utilise agriculture and land use study, and investigate options within the forthcoming Environmental Land Management Scheme (ELMS) in partnership e.g. Lincolnshire Wildlife Trust 7.6.2. Determine how to work with land managers to use land to offset district emissions and implement biodiversity and ecosystem services improvements | Evonne Rogers Tamara Walters Evonne Rogers Tamara Walters | Building partnership relationship with local land owners and managers | Within 10 years | Lead | | | |

Climate Emergency Action Plan

8. Economy & Employment Finance & Investment

| Focus | Action | The benefits | How | Who | Implications | When | ALL | CCS | DECS | EPP | F&R | HPS | Status |
|----------|--|--|---|--|--|-----------------|-----|-----------|-----------|-----------|-----------|------|--------|
| NKDC | 8.1. Extend Sleaford Renewable Energy Plant district heating network | Decarbonisation of heat | 8.1.1. Investigate long term opportunities of extending Sleaford Renewable Energy Plant network to utilise spare capacity including Heart of Sleaford, NCCD and cinema projects | Michael Gadd Russell Shortland Andrew McDonough Alan Gray Tony Mabbott Jason Jarvis Excite | Additional knowledge and expertise during project designs and building specifications Cost implications in relation to external expertise. External funding will need to be investigated. | 2020/21 | | | Secondary | | Secondary | Lead | |
| District | 8.2. More pedestrianised urban centres | Reduced travel/emissions | 8.2.1. Implement the Lincoln and Sleaford Transport action plans. Including through the Sleaford Strategic Delivery Plan Working Group. | Andrew McDonough Alan Gray Stephen Priestley Sleaford and Lincoln Strategy Boards | Actions in Plan require funding, mainly through external funding Funding will be LCC who will deal with strategic proposals. Funded through s106 agreements with developments | 2020/21 | | | Lead | | | | |
| District | 8.3. Encourage local tourism for local residents | Reduced emissions | 8.3.1. Promote local activities and attractions through a campaign | Andrew McDonough Alan Gray Evonne Rogers Jason Hippisley | | 2020/21 | | Secondary | Lead | | | | |
| District | 8.4. Improve internet connection | Enable working from home and agile working | 8.4.1. Investigate opportunities for improved connectivity | Evonne Rogers Cliff Dean | | 2020/21 | | | Lead | Secondary | | | |
| | | Reduced car movements | 8.4.2. Continue to lobby for funding for longer term improvements | Andrew McDonough Alan Gray | | Within 10 years | | | | | | | |
| | | Reduced emissions | | | | | | | | | | | |

Climate Emergency Action Plan

9. Adaptation and Resilience

| Focus | Action | The benefits | How | Who | Implications | When | ALL | CCS | DECS | EPP | F&R | HPS | Status |
|-------|--|--|--|--|--|----------------|-----------|------|------|-----------|------|-----|--------|
| NKDC | 9.1. Assess how extreme weather events effect service delivery | Resilient service delivery | 9.1.1. Risk assess Service Delivery Plans for how extreme weather heat, cold, precipitation, flooding, etc. effects staff, resources and service 9.1.2. Amend Service Delivery Plan template to include adaptation considerations 9.1.3. Review business resilience to affects of climate change | Evonne Rogers Duncan James Evonne Rogers Duncan James Jason Jarvis Sarah Golembiewski | Increased considerations when developing and amending service delivery plans | 2020/21 | | Lead | | | Lead | | |
| NKDC | 9.2. Introduce super agile working | Business resilient operations | 9.2.1. Include in new corporate Environment Policy that we will enable staff to be as agile as possible in their work 9.2.2. Remobilisation (Culture) group to review agile working policy 9.2.3. Allow staff to work a 4 day week and/or 2 days working from home p/w. 9.2.4. Allow flexible start times, including starting earlier during summer. 9.2.5. Allow more staff to be considered "home workers" rather than working from home. 9.2.6. Provide necessary home working equipment | Evonne Rogers Tamara Walters Evonne Rogers Christine Cooper Evonne Rogers Christine Cooper Evonne Rogers Christine Cooper Evonne Rogers Christine Cooper Cliff Dean | Potential changes to staff contracts. Liaison with unions. Need to balance productivity and staff wellbeing Ensuring staff have right equipment | 2020/21 | Lead | | | | | | |
| NKDC | 9.3. Increase permeable surfaces | Reduce heat/temperature | 9.3.1. Add to environment policy that all new developments will have a large degree of permeable surroundings/minimised hard surfaces 9.3.2. Investigate options to design out "dead concrete" areas and encourage planting in new developments | Evonne Rogers Tamara Walters Michael Gadd Russell Shortland Andrew McDonough Alan Gray Michael Gadd Russell Shortland Andrew McDonough Alan Gray Evonne Rogers Tamara Walters | Implications associated with change in designs | 2020/21 | Secondary | Lead | | | Lead | | |
| NKDC | 9.4. Improve management of council land so it provides the ecosystem services that support humans and nature to be more resilient to the effects of Climate Change | Reduced contractor time/cost | 9.4.1. Include in environment policy that NKDC land will be managed so as to support residents and ecosystem services to be more resilient to the effects of Climate Change | David Steele Nina Camm Jason Jarvis Jackie Kelleher | Changes to grass cutting contract. Positive cost implications through reduced maintenance | Within 5 years | Secondary | Lead | Lead | Secondary | Lead | | |
| NKDC | 9.5. Factor climate adaptation measures into new council housing | Preventing extreme weather related issues e.g. over and under heating, poor water and precipitation management | 9.5.1. As part of investigations into net zero emissions housing design specification also factor in climate adaptation measures, to tie into New Build Standard review | Michael Gadd Russell Shortland | | Within 5 years | | | | | Lead | | |

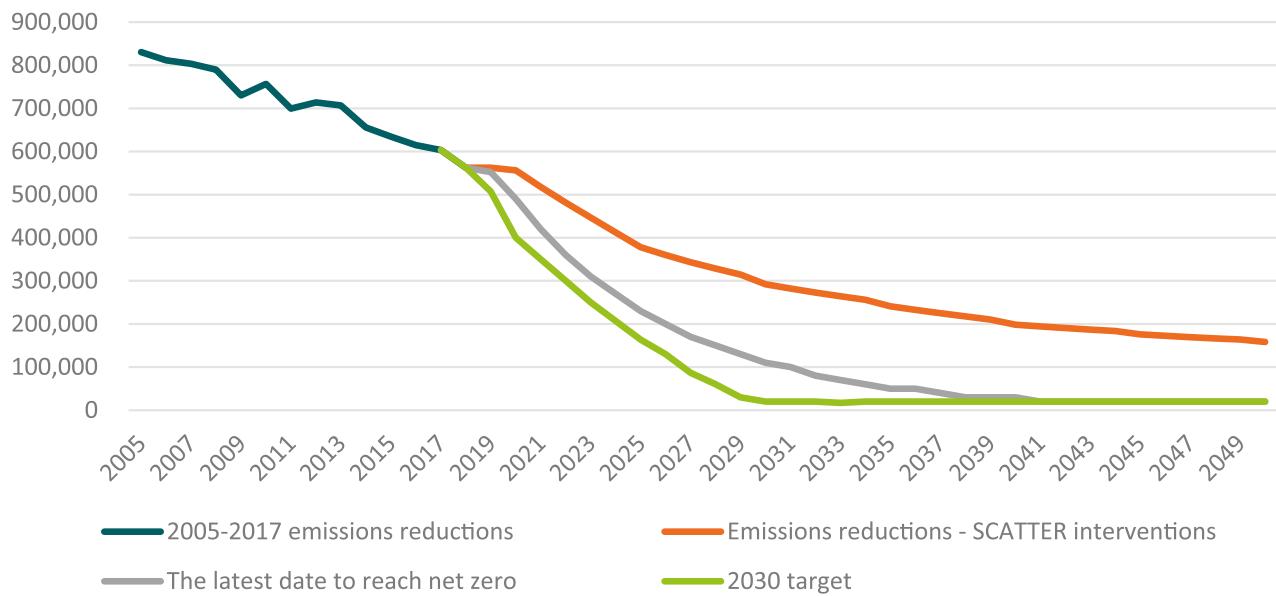
Climate Emergency Action Plan

| District | 9.6. Improve land use and land use change so it provides the ecosystem services that support humans and nature to be more resilient to the effects of Climate Change | Support and improve biodiversity | 9.6.1. Commission agriculture and land use study | Evonne Rogers Tamara Walters | Need to change attitudes to spaces managed carbon capture and increased biodiversity | 2020/21 | Secondary | Lead | |
|----------|--|----------------------------------|---|-----------------------------------|--|---------|-----------|------|--|
| | | | 9.6.2. Engagement private land owners/ managers | Evonne Rogers Tamara Walters | | | | | |
| | | | 9.6.3. As part of the Local Plan review explore opportunities for a green infrastructure policy requirement | Andrew McDonough Mark Williets | | | | | |
| | | | 9.6.4. Increase biodiverse and green infrastructure in open spaces and within new developments | Andrew McDonough Mark Williets | | | | | |
| | | Support ecosystem services | 9.6.5. Work in partnership with LWT and GLNP Provide for natural space appropriate to the wider landscape to ensure that the ecological network is enhanced | Andrew McDonough Mark Williets | | | | | |
| | | | 9.6.6. Stipulate developers include SUDS and high levels of connected green infrastructure. | Andrew McDonough Mark Williets | | | | | |
| | | | 9.6.7. Promote available grants and encourage take up of funding | Andrew McDonough Mark Williets | | | | | |
| District | 9.7. Increase permeable space | Reduce heat/temperature | 9.7.1. Facilitate all new premises to have permeable surroundings via the consideration of planning applications for new developments. | Andrew McDonough Mark Williets | Changing development designs | 2020/21 | | Lead | |
| | | Manage water/flooding | 9.7.2. Enforced as a consideration by Building Regulations | Andy McDonough Mark Williets | | | | | |
| | | Retaining/creating lost habitat | 9.7.3. Support communities to include in Neighbourhood Plans | Evonne Rogers Tamara Walters | Knowledge of creating integrated permeable space will be required | | | | |

Climate Emergency Action Plan

Indicative District Interventions

Estimated emissions reductions from list of indicative district level interventions



The Setting City Area Trajectory and Targets Emissions Reductions tool, available to all local authorities, has been used to generate an indicative list of district level interventions that could be taken along with an estimate of how these actions would reduce emissions. This is shown by the orange line on the graph. It gives an indication of the scope and scale of the action needed to meet the net zero emissions by 2030 target, and the significant action beyond business as usual that is required to even meet the ultimate deadline target for net zero emission by 2041. The interventions the tool suggested are shown below. In the first year of delivery we will use this list as the starting point for more detailed investigations.

Climate Emergency Action Plan

Indicative District Interventions For Further Investigation

The Built Environment – SCATTER tool indicative district interventions

| | |
|---|--|
| Domestic lighting, appliances, and cooking - Demand | By 2050, domestic lighting and appliance total energy demand has dropped to 27% of current levels. |
| Domestic lighting, appliances, and cooking - Electrification | Small reductions in efficiency of domestic cooking. Proportion of cooking which is electric increases to 100% in 2050. |
| Domestic space heating and hot water - Demand | Hot water demand per household reduces by 8% every 5 years |
| Domestic space heating and hot water - New build | From 2021, 100% new-build properties are built to passivhaus standard. |
| Domestic space heating and hot water - Retrofit | By 2050, 10% of current stock is retrofitted to a medium level; 80% deep retrofit. |
| Domestic space heating and hot water - Technology | By 2050, 20% new gas boilers; 60% air-source heat pumps and 20% ground-source heat pumps |
| Domestic lighting, appliances, and cooking - Demand | In 2050, commercial heating, cooling and hot water demand is 60% of today's levels |
| Commercial heating and cooling - Demand | By 2050, 20% new gas boilers; 60% air-source heat pumps and 20% ground-source heat pumps |
| Commercial heating and cooling - Technology | Commercial lighting & appliance energy demand decreases 25% by 2050. |
| Commercial lighting, appliances, and catering - Demand | By 2050, 100% of commercial cooking is electrified |

Transport - SCATTER tool indicative district interventions

| | |
|---|--|
| Domestic freight | By 2050, 22% decrease in distance travelled by road freight; 75% increase in efficiency. In waterborne transportation, 28% increase in use of waterborne transport. |
| Domestic passenger transport - Demand | 25% reduction in total distance travelled per individual per year by 2030. |
| Domestic passenger transport - Modal shift | Average modal share of cars, vans and motorbikes decreases from current national average 74% total miles to 38% in 2050. |
| Domestic passenger transport - Technology | Cars and buses are 100% electric by 2035, rail is 100% electric by 2030. Average occupancies increase to 18 people per bus km (from 12), 1.65 people per car-km (up from 1.56), and 0.42 people per rail-km (from 0.32). |
| International aviation | Department for Transport "Low" forecast for aviation. The "Low" forecast encapsulates 'lower economic growth worldwide with restricted trade, coupled with higher oil prices and failure to agree a global carbon emissions trading scheme. For reference see Pathways Methodology.' |
| International shipping | By 2050, 28% decrease in fuel use at UK ports. |

Energy generation - SCATTER tool indicative district interventions

| | |
|-------------------------------------|---|
| Biomass/Coal power stations | Solid biomass generation quadruples in 2025, dropping off after that.; Coal phase-out follows trajectories from the National Grid's Two Degrees scenario. |
| Hydroelectric power stations | Hydroelectric power generation grows to 34 MWh per hectare inland water in 2030; 41 in 2050. |
| Offshore wind | Large-scale onshore wind generation grows to 4.8 MWh per hectare in 2030; 6.9 MWh in 2050. |
| Onshore wind | Large-scale onshore wind generation grows to 1.9 MWh per hectare in 2030; 2.2 MWh in 2050. |
| Small-scale wind | Small-scale wind grows to 2.8 MWh per hectare in 2030; 3.3 in 2050 (from a baseline of 1.2 MWh per hectare.) |
| Solar PV - Large | Large-scale solar generation grows to 200 kWh per hectare in 2030; 400 in 2050 (from a baseline of 50 kWh per hectare.) |
| Solar PV - Small | Local solar capacity grows, generating equivalent to 2500 kWh per household in 2030; 5200 in 2050 (from a baseline of 400 kWh per household.) |

Natural Carbon Capture and Biodiversity - SCATTER tool indicative district interventions

| | |
|---|--|
| Agriculture and land use - Tree planting | Tree-planting to increase current coverage by 30% by 2030; from 2030-2050 further increase of 20%. |
| Agriculture and land use - Forestry | 24% increase in forest cover by 2030. |

Waste and Water - SCATTER tool indicative district interventions

| | |
|--|---|
| Volume of Waste & Recycling - Recycling | 65% recycling, 10% landfill, 25% incineration achieved by 2035, recycling rates increasing to 85% by 2050 |
| Volume of Waste & Recycling - Reduction | Total volume of waste is 61% of 2017 levels by 2040. |

Climate Emergency Strategy and Action Plan

Glossary

| | |
|--|--|
| Adaptation | Taking actions to mitigate the negative impacts of climate change on social, economic and natural systems. |
| Biodiversity | The variety of animal and plant life on Earth. |
| Carbon budget | The maximum amount of carbon dioxide that can be emitted in order to keep temperatures well below 2°C and ensure a 1.5°C limit to rising temperatures. |
| Carbon dioxide (CO₂) | A key greenhouse gas, with a long atmospheric lifetime. Produced by natural and human sources. |
| Carbon dioxide equivalent (CO_{2e}) | This is the unit used to combine and deal with all the main greenhouse gas emissions at the same time by dealing with them as being equivalent to the most emitted gas (CO ₂). It is also why greenhouse gas emissions and carbon emissions are often used interchangeably, but still mean the same. |
| Carbon neutral | Having no net release of carbon dioxide into the atmosphere. |
| Climate change | A change in global or regional climate patterns. In particular, a change apparent from the mid to late 20th century onwards. It is largely attributed to the increased levels of atmospheric carbon dioxide produced by the use of fossil fuels. |
| Climate emergency | Climate change presents the greatest threat to life: on the economy, social well-being and the natural environment. |
| CO_{2e} | Carbon dioxide equivalence; this includes all greenhouse gasses converted into the equivalent amount of carbon dioxide. |
| Decarbonisation | Removing the production of carbon emissions from a process. |
| Ecosystem | A biological community of interacting organisms and their physical environment. |
| Fossil fuel | A natural fuel, formed in the geological past from the remains of living organisms (e.g. coal, oil). |
| Global warming | Temperature increase of the Earth's atmosphere over extended timescales, predominantly caused by increased levels of greenhouse gases. |
| Greenhouse gas (GHG) | The Earth can maintain a regular average temperature (about 15°C) despite heat leaving the planet's surface because a layer of gases in the atmosphere absorb and release heat – a process known as the greenhouse effect. Greenhouse gases are those that have this effect, each with differing lifetimes and abilities to capture heat (infrared radiation). |
| Sequestration | A natural or artificial process by which a substance is removed from the atmosphere and held in solid or liquid form. |
| Sustainability | Meeting the needs of current generations, without compromising future generations or the natural environment. |

Climate Emergency Strategy and Action Plan

North Kesteven District Council
District Council Offices
Kesteven Street
Sleaford
Lincs
NG34 7EF

Telephone Number: (01529) 414155
Out of Hours Telephone Number: (01529) 308308
E-mail: customer_services@n-kesteven.gov.uk



North Kesteven
DISTRICT COUNCIL