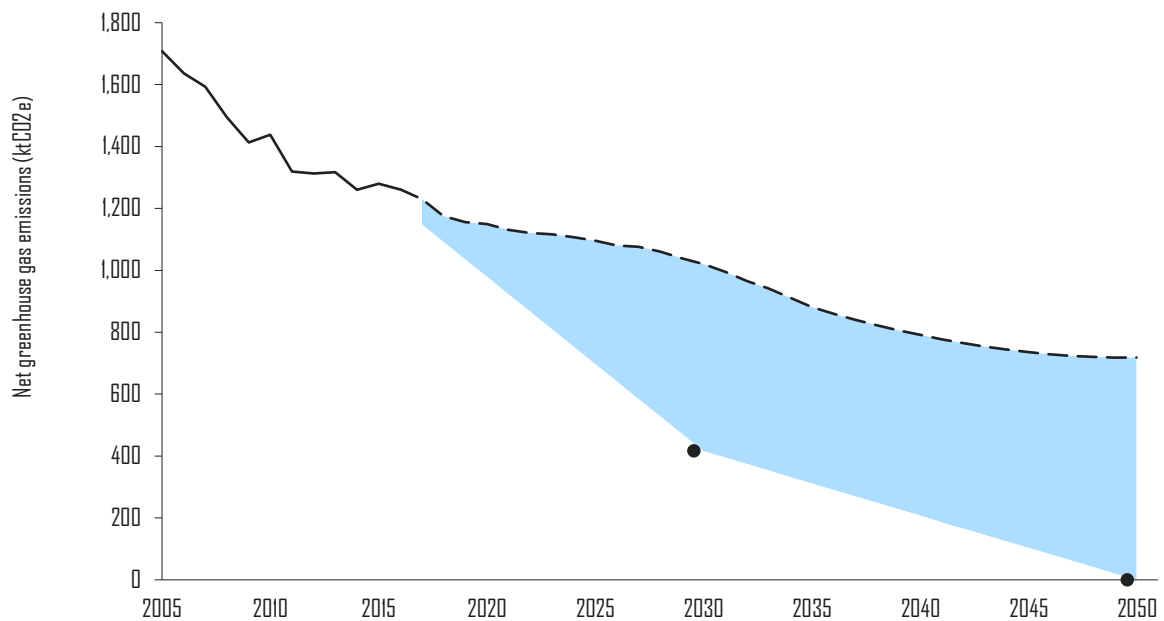


North West Leicestershire District Council



Zero Carbon Roadmap | Action plan

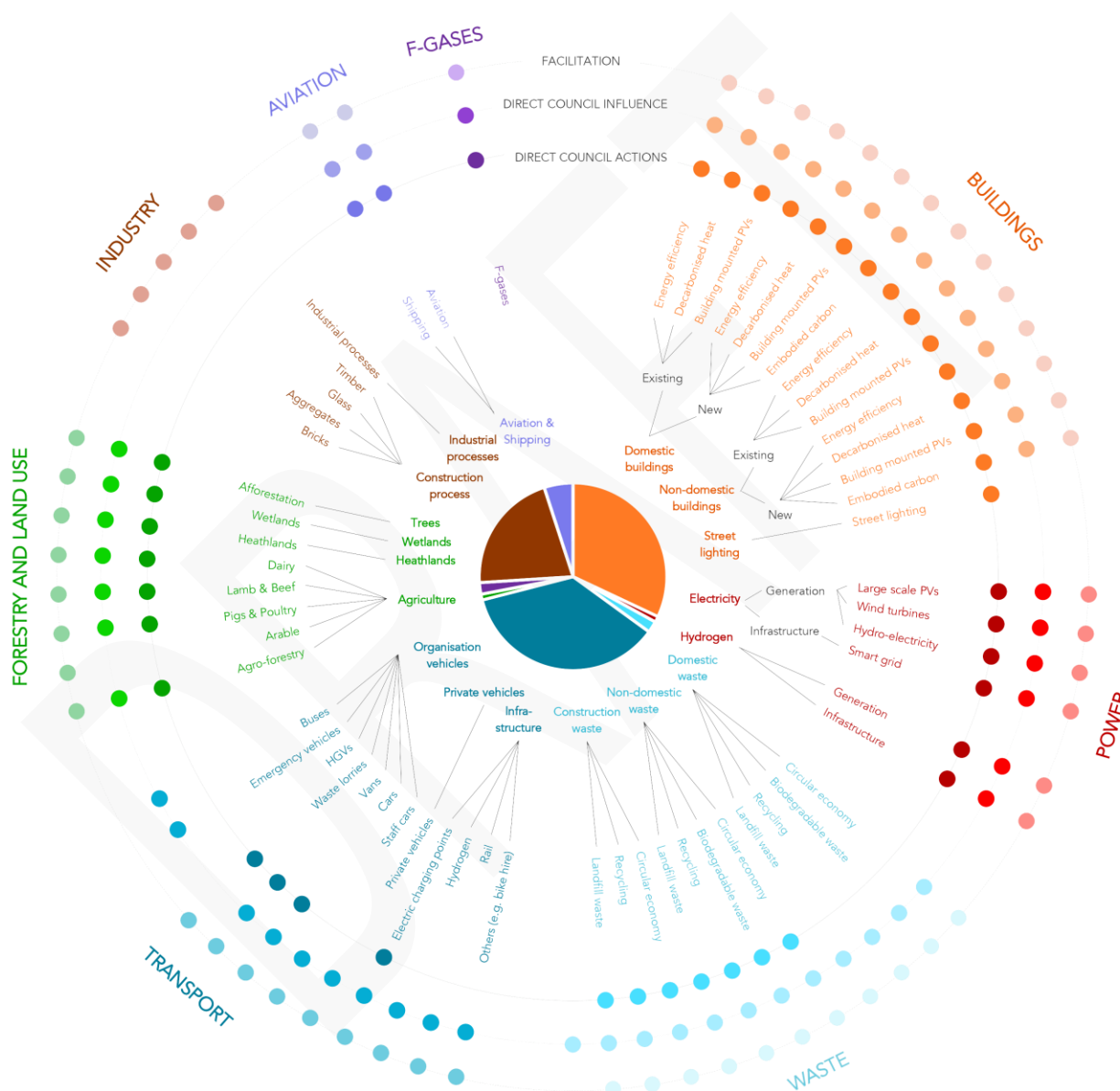


November 2019

INTRODUCING THE ACTION PLANS

This document summarises the recommended actions to achieve Net Zero Carbon. As the actions are wide ranging and cover diverse sectors (see overview below), it has been split up into two sections:

1. Recommended action plan to achieve a Net Zero Carbon Council by 2030
2. Recommended action plan to achieve a Net Zero Carbon District by 2050



The colours correspond to the emission categories identified by the Committee on Climate Change. On the following pages, '3y' indicates an action which should be initiated in the next 3 years.

1.0 ACHIEVING A ZERO CARBON COUNCIL BY 2030 – ACTION PLAN

Power

3Y	Install PVs on the Council's non-domestic buildings, starting with the largest roof areas: The Council's Offices and the Ashby Leisure Centre
3Y	Ensure that the electricity supply to all the Council's assets is based on a 100% renewable tariff
	Install PVs on the Council's housing stock
	Install wind turbines on the Council's land

Buildings and towns

3Y	Start retrofitting or demolish and rebuild existing housing owned by the Council <ul style="list-style-type: none"> Improve building energy efficiency: insulation, improved airtightness and better windows Install Mechanical Ventilation with Heat Recovery (MVHR) wherever possible Retrofit heat pumps Install PV <p>Target high emission homes first (e.g. those using coal or oil).</p> <p>Undertake a pilot project/exemplar a pilot project/exemplar to establish costs and programme requirements for wider roll out.</p>
3Y	Set best practice energy standards of future housing built or acquired by the Council, or on Council land. This should be consistent with the recommendations of the Committee on Climate Change (CCC) Report on the future of housing (i.e space heating demand < 15-20 kWh/m ² .yr). Passivhaus or equivalent should be considered and an assessment against Net Zero Carbon should be required.
3Y	Start retrofitting existing buildings owned and operated by the Council (e.g. Council's offices) <ul style="list-style-type: none"> Improve building energy efficiency: insulation, improved airtightness and better windows Install Mechanical Ventilation with Heat Recovery (MVHR) wherever possible Retrofit heat pumps Use energy management to reduce energy use Install PV
3Y	Set best practice energy standards of new buildings built or acquired by the Council. This should be consistent with BEIS energy mission to halve energy use in new buildings. Passivhaus or equivalent should be considered and an assessment against Net Zero Carbon should be required.
3Y	Develop a Net Zero Carbon retrofit plan for the new leisure centre The current design was developed before the climate emergency was declared and has limited scope to be amended before construction. A phased retrofit plan should be developed to improve the building fabric, replace the proposed gas-fired CHP with a heat pump and ensure the PV array meets best practices.
3Y	Mine-water heating Start a pilot project using mine-water source heat pump for one or several non-domestic buildings
	Replace all inefficient car park lighting with efficient LEDs and improve controls to save energy.
	Work with the DNO to prepare tomorrow's grid in NWL (Grid Reinforcement) NWLDC should work with the DNO to ensure there is a plan in place for grid reinforcement to enable the shift to zero carbon (e.g. more decentralized renewable energy, electrification of transport, wider heat pump update).

Transport

3Y	Use electric cars
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3y	Start the process of replacing the Council's 12 cars with EV cars
	Use electric vans Start the process of replacing the Council's 65 vans with EV vans
3y	Install electric charging points for the Council's fleet The service could be extended to other organisations using the same electric car charging points
3y	Install electric charging points for the Council's staff Install electric charging points at Council's buildings and carparks for staff.
	Use low carbon waste lorries Replace the Council's 34 lorries (including 21 waste management vehicles) with low carbon alternatives
	Electrify all remaining vehicles Consider the electrification of Council's 42 other vehicles (e.g. diggers, lawn mowers)

Waste

3y	Conduct a waste inventory to understand better where council waste comes from A waste inventory can help identify the sources of office waste. Once this is understood, explore ways to minimize the waste generated, look for alternatives for any non-recyclable waste.
3y	Target a 70% recycling rate for waste from all council buildings by 2021 Setting a high target internally will help to better understand how to achieve higher rates throughout the district as a whole.
3y	Introduce food waste bins in all office areas. Achieving the target of zero organic waste to landfill by 2025 will require a behavioural shift in the way we do things. Food waste bins should be collected daily and placed in a centralized location ready for collection.
3y	Target exemplary levels of recycling of waste materials from council construction projects A minimum target of 95% should be set and the proportion of energy recovery should be minimized over time.
	Grow waste and circular economy awareness Take responsibility for knowing where the waste from the district is going, and what happens to it.

Forestry, land use and agriculture

3y	Tree planting schemes & National Forest Plant at least 110 to 440 hectares of new woodland to absorb enough carbon dioxide to offset the Council's residual GHG emissions. Increase tree planting on Council owned land and parks; carry out surveys to establish where trees can be planted safely and develop an overall plan of how many trees can be accommodated and where, then allocate annual resources and work with the Woodland Trust and Forestry Commission to procure and plant the trees.
3y	Change Diets Reduce the meat content and increase vegetarian choices of food served on Council owned premises, including Council offices and leisure centres.
3y	Set up a pilot Agroforestry project on council owned land to raise awareness of the principles, especially among allotment users and small farms
	Protect Heathlands and Wetlands Liaise with the RSPB and local wildlife partnerships to seek support for enhancement and management of the River Mease SAC. The Developer Contribution Schemes (DCS1 & 2 referred to in the Local Adopted Plan) provide a funding resource to implement such improvements.

Others

3Y	Implement a policy to reduce staff flights and to prioritise the use of surface transport.
3Y	Encourage video calling and invest in good quality equipment to support better digital participation in meetings to reduce travel.
	Include a carbon cost for transport in procurement decisions.
3Y	Base refrigerant selection in cooling systems used by the Council on a principle of 'lowest available Global Warming Potential (GWP) refrigerant'.

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2.0 ACHIEVING A ZERO CARBON DISTRICT BY 2050 – ACTION PLAN

2.1 Planning policy and the Local Plan opportunity

Power

3Y	Set a formal target for solar capacity in North West Leicestershire from 89 MW today to at least 140 MW by 2050 in the Local Plan
3Y	Set a formal target for wind capacity in North West Leicestershire from 3 MW today to at least 75 MW by 2050 in the Local Plan

Buildings and towns

3Y	Introduce planning requirements for all future housing in line with Zero Carbon target This should be consistent with the recommendations of the CCC report on the future of housing (i.e space heating demand < 15-20 kWh/m ² .yr). Passivhaus or equivalent should be considered and an assessment against Net Zero Carbon should be required.
3Y	Introduce planning requirements for all new non-domestic buildings in line with Zero Carbon target This should be consistent with BEIS energy mission to halve energy use in new buildings. Passivhaus or equivalent should be considered and an assessment against Net Zero Carbon should be required.
3Y	Use policy intervention to prevent the installation of any new fossil fuel heating system (e.g. gas boilers) from 2020
3Y	Use policy intervention to prevent the installation of any gas-fired CHP system from 2019
3Y	Assess new planning applications with the correct electricity carbon intensity NWLDC should follow the Greater London Authority's lead in requiring applicants to use the most up to date grid factors to further incentive low carbon heating
3Y	Set up a Carbon Offset fund This would incentivise private developers to achieve greater savings on-site while providing financial resources to the Council to improve the existing building stock.

Transport

3Y	Include electrical charging infrastructure in strategic plans.
	Include planning for enhanced pedestrian and cycle routes in strategic plans

Waste

3Y	Target a 70% recycling rate for waste from all domestic and non-domestic buildings by 2025 The CCC has advised central government that to meet our targets of achieving zero carbon by 2050, a recycling rate of 70% of all solid municipal waste must be achieved by 2025.
3Y	Target zero biodegradable waste to landfill by 2025 As recommended by the CCC to the UK Government in May 2019.
3Y	Introduce planning requirements for domestic waste storage and collection Requirements should ensure all new properties have convenient and sufficient space for storage of recyclable and non-recyclable waste.

3y	Introduce planning requirements for domestic waste storage and collection Requirements should ensure all new properties have convenient and sufficient space for storage of recyclable and non-recyclable waste.
3y	Introduce planning requirements for construction waste (recycling, diversion from landfill) on new-build projects.
3y	Make the food waste collection scheme permanent It's likely that UK government will legislate this at some point in the future.
3y	Introduce a food waste collection scheme for businesses A food waste collection scheme from all businesses in the district (not only catering and retail, but anywhere food waste may be disposed of) should be implemented by 2023. To achieve the target of zero organic waste to landfill by 2025, all sources of biodegradable waste need to be addressed.

Forestry, land use and agriculture

3y	Increase woodland cover by at least a factor of two The district's residual emissions will require a minimum of 7,810 hectares of woodland cover to remove carbon dioxide from the atmosphere. Work with the Forestry Commission and National Forest to determine the most effective strategy to achieve the necessary GHG reductions, identify more land for new forest creation and create an action plan to implement tree planting.
3y	Set minimum standards for green spaces in new developments. Consult with various local and national bodies to develop Planning policies to enhance green infrastructure, especially within the boundary of the National Forest. This is particularly the case for large developments, which have greater potential for green infrastructure creation, and it could be argued a greater obligation. Planning Policy IF3 currently highlights sports facilities in particular for green infrastructure – this should be adjusted and expanded to include woodland and other 'carbon rich' types of open space.

Others

3y	Implement Planning policies restricting use of F-gases by discouraging air conditioning and prioritizing lower GWP refrigerants.
3y	Implement Planning Policies to encourage new industry to use Bio-Energy with Carbon Capture Storage (BECCS).

2.2 Partnerships with the public and private sector

Power

	Assist the creation of community energy companies
	Seek partners for creating a community renewable energy investment fund.
3Y	Engage with organisations occupying/managing the largest warehouses in North West Leicestershire to discuss potential for large-scale PVs, e.g. <ul style="list-style-type: none"> M&S DHL Segro
3Y	Engage with organisations on each of the business parks in North West Leicestershire to discuss potential for PVs, e.g. <ul style="list-style-type: none"> Castle Donington Business Park Coalville Business Park Asbhy Business Park
3Y	Engage with the private sector to discuss potential onshore wind development at Normanton le Heath and on the area to the South West of Chilcote.
	Lobby central government to change planning laws for onshore wind

Buildings and towns

3Y	Work with partners to ensure all buildings operated on behalf of the Council are low carbon Require the low carbon staged retrofit of existing buildings owned by the Council but operated by others (e.g. Hood Park leisure centre)
	Urge Leicestershire County Council to instigate energy efficient retrofits of schools within the district to build upon the School Collaboration on Resource Efficiency programme and develop more ambitious retrofits that are capable of achieving Net Zero Carbon.
	Engage with owners and occupiers of existing offices on Net Zero Carbon (e.g. business parks)
	Engagement with existing warehouse buildings on Net Zero Carbon (e.g. M&S, DHL)
	Engage with national energy providers Improve local access to green energy funding sources and schemes – especially to support SMEs.
	Work with heating engineers to re-train them from gas/oil/biomass boilers to heat pumps. Inform them that boilers are being phased out. Encourage re-training.

Transport

3y	Urge operators to replace buses with EV and hydrogen buses
3y	Encourage LCC to provide electric charging points on LCC highways
	Install electric charging points for businesses and the public. Consider the option of integrating them with street lamp posts
	Encourage LCC to explore potential for 'e-highway' route for HGVs
	Urge LCC to replace emergency vehicles with EV versions
	Use influence to encourage and support development of 'taxi-bus' initiatives
	Provide short-term hire bikes and electric bikes in key locations – may require working with an external provider
	Work with LCC and transport providers to explore potential for public rail infrastructure
	Work with LCC and transport providers to explore potential for electrification of rail infrastructure
	Work with taxi drivers to encourage a switch to electric vehicles
	Work with providers to encourage electric charging points at existing petrol stations and private car parks.
	Encourage replacement of cars with EV cars by leading by example and providing information. Provide information to NWL businesses about electric cars
	Encourage replacement of vans with EV vans by engaging with businesses
	Encourage replacement of HGVs with low carbon alternatives by engaging with operating companies

Waste

3y	Engage with businesses to improve recycling rates. The 'Recycle more...' campaign has identified barriers to recycling. NWL DC has recently appointed a Communications and Engagement Officer to increase recycling rates across the district. This role should include business waste.
3y	Engage with supermarkets in the district to discuss feasibility of a 'Zero food waste' system The system would seek to reduce food waste to zero by following a 3-tier approach: discounts to customers, donations to charity, animal feeds.
3y	Run food waste reduction campaigns for businesses Not only does food waste produce methane in its decomposition, but also the production of food is a large source of CO ₂ emissions and environmental degradation. Support and promote food waste reduction campaigns, such as WRAP's "Love Food Hate Waste".
3y	Run general waste reduction campaigns aimed at businesses Through initiatives identified in 'Recycle more...'
	Identify levers that make it more attractive for businesses to recycle their waste The 70% recycling rate across the district will rely on high levels of recycling by businesses.
	Hold Severn Trent Water to account for their performance relative to their own targets and national standards

Forestry, land use and agriculture

3y	Change diets Work with LCC and the local NHS to reduce the meat content and increase vegetarian choices of food served in schools and hospitals.
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3y	Encourage farmers to double the amount of trees on farmland by 2030. This could be achieved through the forum of an Agricultural working group.
3y	Create an agricultural working group to discuss potential for agriculture to reduce CO₂ emissions in the district This could, for example, discuss recommendations given in the Committee on Climate Change's report "Zero: The UK's contribution to Climate Change and accompanying technical report. A priority could be to find alternatives to nitrogen-based fertilizer which not only contributes to climate change but is also having a significant adverse impact on waterways and rivers.
	Continue with the free tree scheme for landowners
	Protection of green infrastructure on private land Engage with the Environment Agency to assist in the management and improvement of land – including private farm land - around water courses to reduce flood risk and GHG emissions.
	Do more to inform and support local councils to define and designate Local Green Spaces in their own communities.
	Work with the National Forest, the Woodland Trust, the Forestry Commission and LCC Highways to enrich hedgerows on county owned land, such as schools and roadside verges.
	Protect Heathlands and Wetlands Liaise with the RSPB and local wildlife partnerships to seek support for enhancement and management of the heathlands, wetlands and other habitat resources in the district, particularly the areas currently at highest risk of flooding in the north of the district.
	Engagement with NGOs and charities on conservation and biodiversity, particularly to improve the carbon storage potential in SSSIs and BAP priority habitats.

Others

3y	Encourage local businesses to reduce the carbon intensity of their operations and improve energy efficiency in a Local Business 'Carbon Action' group.
3y	Encourage local businesses to reduce their number of flights.
3y	Encourage less harmful refrigerant selection in cooling systems used by businesses.
	Support business groups and communities to share video calling facilities.
	Invite Visit England to put on an event in the district to promote UK based holidays to local residents.
	Engage with the airport operator to seek effective ways to diminish the impact it has on the district.

2.3 Engagement with the Public

Buildings and Towns

3y	Offer a Technical Advice service for property owners and occupiers looking to improve energy efficiency. A trusted technical advice service can help facilitate the uptake of energy efficiency measures such as loft, floor and wall insulation, window upgrades, alternatives to gas boilers and more.
3y	Create a public awareness campaign on the future of heating homes, including timescales. The public are largely unaware that gas boilers will quickly become redundant technology. The future of heating should be discussed with the public so that they can make informed choices when replacing boilers, and perhaps consider changing the boiler for a more "future proofed" technology.
	Campaign on carbon reductions for existing housing not owned by the Council For example providing information on efficient measures and funding mechanisms.
	Publicise examples of low carbon new Council buildings or retrofits

Transport

3y	Revise car's allowance systems to incentive low emission cars for the Council's staff e.g. higher allowance for electric cars, reduced allowance for diesel cars
3y	Encourage staff's switch to EV cars Influence to encourage replacement of cars owned by staff with EV cars – investigate potential funding streams e.g. tax breaks
3y	Run events informing the public about transport of the future The public will benefit from a better understanding of the future of transport. How and why petrol and diesel cars and vans will be phased out, and what the alternatives are.
	Encourage replacement of cars with EV cars by leading by example and providing information. Provide information to NWL residents about electric cars

Waste

3y	Engage with residents to improve recycling rates. The 'Recycle more...' campaign has identified barriers to recycling. NWL DC has recently appointed a Communications and Engagement Officer to increase recycling rates across the district.
3y	Run food waste reduction campaigns for residents Not only does food waste produce methane in its decomposition, but also the production of food is a large source of CO ₂ emissions and environmental degradation. Support and promote food waste reduction campaigns, such as WRAP's "Love Food Hate Waste".
3y	Run general waste reduction campaigns aimed at residents Through initiatives identified in 'Recycle more...'
	Continue with 'Recycle more...' campaign beyond 2022, ramping up targets. Recycle more... has identified some excellent initiatives and has captured some very useful insights from residents on attitudes to recycling. This campaign should be extended with increasingly bold targets.

Forestry, land use and agriculture

3y	Promote more environmentally friendly diets Organise a local food fair event to promote local food producers with an emphasis on vegetarian foods. Provide public information and support for farmers' markets to reduce the meat content of food consumed by residents and workers in the district.
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	Encourage the planting of more hedges and trees on farmland This could be achieved through the forum of an Agricultural working group.
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Others

3Y	Encourage staff to reduce flights outside work.
3Y	Encourage local residents to reduce numbers of flights.
3Y	Encourage less harmful refrigerant selection in cooling systems used by residents.

2.4 Organisational readiness and commitment

Proposed organisational readiness and commitment actions


3Y	Appoint a dedicated Sustainability officer and team Create a role for a specialist sustainability officer that will have responsibility for implementing the Zero Carbon Roadmap and collect CO ₂ emissions data. The actions recommended in this report should be distributed across all service teams in the Council but in order for progress to be sustained, we recommend that they are overseen by the Sustainability Officer. It is important to embed sustainability, carbon reduction minded thinking across all groups and all decision making.
3Y	Collect data on energy and CO₂ from district council operations, reporting annually Collect data on council CO ₂ emissions in line with Government and IPCC GHG reporting guidelines.
3Y	Reassess the importance of sustainability and zero carbon goals to the organisation Make the delivery of a zero carbon NWL a headline priority for the council.
3Y	Develop a Zero Carbon 2050 checklist or core aims, against which all Council decisions are marked against A short checklist can be created and used to guide all decisions made in the Council. It can be used as a prompt to consider the impacts of all decisions against the overarching aims of achieving the council's zero carbon goals.
3Y	Management support for climate change efforts The newly appointed Sustainability officer must be strongly supported by senior management to implement actions and initiatives and deliver results.
3Y	Form an internal climate change working group This action is already underway in the Council. Momentum should be maintained with regular meetings and the power and jurisdiction to make change.
3Y	Develop the Carbon Reductions Actions Matrix Implicate and involve all services for maximum impact and reach. Adjust the Matrix of actions developed by Etude and use it to track progress.
3Y	Target high employee engagement <ul style="list-style-type: none"> Run inspirational employee training sessions for sustainability awareness. Communicate the message across all services at all levels. <ul style="list-style-type: none"> Sustainability / energy focus groups Internal campaigns to improve sustainable behaviours Promote carbon management strategy on an ongoing basis - e.g. through staff magazine / newsletters.
3Y	Create internal policies on waste, procurement and travel that are aligned with overall 2050 objectives Internal policies guide council staff on targets for waste, procurement and travel and give weight to initiatives developed.

3Y	Appoint waste champions for each Council building By appointing waste champions individuals have direct responsibility for how well waste is segregated and recycled in their areas. Teams could be set targets and leader boards produced to utilise friendly competition. Waste champions should have responsibility for monitoring waste bins and recording waste generated.
3Y	Engage with suppliers Work with suppliers to reduce their carbon footprint. Consider environmental performance when awarding contracts. Select local suppliers and businesses where possible.
3Y	Re-invigorate the 'Green Footprints Challenge' – Consider changing the name 'Zero Carbon Challenge' It is understood that 'Green Footprints Challenge' was a well-known and liked scheme that engaged local businesses and residents. We would recommend it is reinvigorated, developed and supported by all levels of the organisation.
	Create a responsibility jointly with the National Forest for its role of forestry towards Zero Carbon Improve carbon sequestration of Council owned land. Consider an apprenticeship scheme in the district for woodland and park management.
3Y	Hold a Citizens' Assembly on Climate Change Follow the example of Camden and create a Citizens' Assembly to create a fair representation of society. The Citizens' Assembly should learn about critical thinking and then hear balanced information from a variety of experts. It should then spend time deliberating in facilitated groups, to come up with recommendations. Citizens Assemblies have proved successful in addressing sensitive, controversial and difficult issues.
3Y	Ensure that NWL District Council is able to be agile and responsive in order that it can respond to the changing requirements as they emerge

2.5 Others

	Provide high quality Building Control that ensures buildings are built as designed Review how buildings are assessed, e.g. required standards and the timing of site visits.
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All actions above have been compiled into an Excel spreadsheet. The intention is that the Matrix can be integrated into North West Leicestershire District Council's working practices as a fluid document that can be filtered and manipulated to suit.

Matrix of CO2 Reduction Initiatives for NWLDC					
Project Number	20190234				
Project Name	NWL Carbon Gap Analysis				
Tab	Carbon reduction actions				
Revision	A				
					
Sector	Category	Sub-category	Action category	Level of control	Action
1. Buildings and towns	Non-domestic buildings	Existing - council	Organisational change	Direct	Assess the utilisation of council owned buildings and analyse whether there is the potential for consolidation.
1. Buildings and towns	Non-domestic buildings	Existing - council	Procurement	Direct	Procure 'green electricity' for council buildings and operations.
1. Buildings and towns	Non-domestic buildings	Existing - council	Procurement	Direct	Initiate a programme of replacement of obsolete white goods with energy efficient alternatives.
1. Buildings and towns	Non-domestic buildings	Existing - council	Procurement	Direct	Switch to low carbon energy supply for council buildings.

Screenshot of Excel based Actions Matrix