

EXTRACT

FROM ZERO CARBON ROADMAP PAPER TO CABINET ON TUESDAY, 19 JULY 2022

Title of Report	ZERO CARBON ROADMAP UPDATE
Background Papers	<p>Minutes of 31 March 2020 Cabinet meeting where Zero Carbon Roadmap & Action Plan was adopted: Agenda for Leader of the Council Cabinet Member Meeting on Tuesday, 31st March 2020, 5.00 pm - North West Leicestershire District Council (nwleics.gov.uk)</p> <p>Zero Carbon Roadmap Year 1 report: Agenda for Cabinet on Tuesday, 27th July, 2021, 5.00 pm - North West Leicestershire District Council (nwleics.gov.uk)</p> <p>Minutes of 9 March 2022 Corporate Scrutiny: Agenda for Corporate Scrutiny Committee on Wednesday, 9th March, 2022, 6.30 pm - North West Leicestershire District Council (nwleics.gov.uk)</p>
Full Cabinet Report	<p>Agenda for Cabinet on Tuesday, 19th July, 2022, 5.00 pm - North West Leicestershire District Council (nwleics.gov.uk)</p>

1. ZERO CARBON ROADMAP KEY THEMES

1.1. The Zero Carbon Roadmap is divided into distinct activity groups.

Buildings	Forestry & Land Use
Power	Industry
Waste	Aviation
Transport	F-gases

1.2. North West Leicestershire emissions are dominated by transport, buildings, and industrial installations.

1.3. Direct emissions from NWLDC are estimated at 1.5% of the total emissions from the district (council buildings, homes, vehicle fleet).

1.4. The council can directly influence a further 32% of emissions mainly through:

- Planning for new buildings
- Planning control for new industrial installations and site emissions
- Electric vehicle infrastructure
- Waste reduction and diversion from landfill

1.5. The initial focus is on the council's own activities and what direct action it can take. Other categories of activities identified are where the council can influence and where it can help to facilitate.

2. EMISSIONS MEASUREMENT

- 2.1. Members requested officers consider how they could report the impact of activity on carbon emissions. Information on measuring methodologies and detailed breakdown of the reporting developed is outlined in Appendix One (please see link to full cabinet report above).
- 2.2. UK Government department BEIS (Department for Business, Energy & Industrial Strategy) carbon emission factors provides the best source for district emissions. This data is produced 2 years in arrears and it is available back to 2005. Data is based on territorial CO2 emissions, those that occur within the district's borders.

2.2.1. The data indicates the following reductions between 2005 and 2019. Further detail is available in Appendix One.

Sector	% Change (2005-2019)
Commercial	-49%
Domestic	-34%
Industry	-38%
LULUCF	0%
Public Sector	-55%
Transport	-1%
Total	-29%

- 2.3. For NWLDC reporting, the Local Government Association (LGA) carbon emissions accounting tool is used. It is based on the BEIS carbon emission factors.

2.3.1. Summary of emissions

GHG emissions tCO2e	Sector	2021-22	2020-21	% Change	2019-20	% Change 21/22 v 19/20	Difference tCO2e
Scope 1 - Direct Emissions							
Gas	Buildings	681.4	720.5	-5.4%	698.1	-2.4%	-16.7
Diesel, HVO*	Fleet vehicles	797.7	880.8	-9.4%	955.8	-16.5%	-158.0
Scope 2 - Energy indirect							
Purchased electricity	Buildings	282.0	327.2	-13.8%	429.6	-34.4%	-147.6
Total Emissions		1761.2	1928.4	-8.7%	2083.5	-15.5%	-322.3

* HVO emissions assumed at 10% of diesel

HVO - fleet switched to HVO 19/1/22 (71 days); assumption is Housing switched 1/3/22 (31 days)

- 2.3.2. The data is sourced from NWLDC invoices for utilities and from fuel and tracker systems for fleet. It excludes the leisure centres and tenanted properties.
- 2.3.3. Note: In the future, emissions reporting may expand to report on more categories, or property portfolios or fleet numbers might change, which may result in an increase in reported emissions at total level but actually reflect an improvement on prior year on a like-for-like basis.
- 2.4. Additional reporting is provided in Appendix One on EPC rating improvements from the recent social housing improvements, EV charging usage and the food waste trial.

3. YEAR TWO UPDATE

- 3.1. Year Two has seen significant progress on the zero carbon agenda.
- 3.2. Key achievements include the Fleet Management Strategy which has informed the fleet replacement capital plan and the switch from diesel to HVO fuel; Green Home Grants work which resulted in significant energy and emissions improvements to 86 homes and a draft asset management plan; electric car charging points have been installed in Coalville, supported by government grants; Local Plan Review is underway and zero carbon has been a key area of focus in the recent consultation; the Whitwick and Coalville Leisure Centre has been built to BREEAM standards and the free tree scheme returned. In addition, significant work has been undertaken on emission data reporting.
- 3.3. Challenges have been around technical complexity and cost of upgrading LED lights in car parks (funding request in Year 3); the lack of government funding to support food waste expansion across the district and limited progress on employee travel and scope 3 emissions. All residual activities feature in Year 3 plans.

No.	Sector/Action	Update
	Buildings	
1	Deliver energy efficiency improvement works to c56 social housing properties supported by the government's Green Home Grant Phase 1B grant (£264,000) and £437,000 council funded investment by end Sept 2021.	Energy efficiency improvements delivered to 56 social housing. After the success of LAD1B programme, further funding was awarded to support improvements to another 30 properties. The improvement works were all complete on time with the properties all achieving a minimum of EPC rating C. Data is reported in Appendix One.
2	Develop HRA asset management strategy for approval within 2021/22 outlining plans for improving energy efficiency and retrofitting the existing housing stock of 4100 tenants' homes with zero carbon a key consideration and include methodology to measure the CO _{2e} emissions benefit.	<p>Housing Asset Management Plan is going to Full Council in July 2022 and outlines the interim activity, focusing on 2022-2024, whilst a full five year programme is developed to cover 2024-2029 across the estate of 4159 homes, alongside several legislation changes.</p> <p>Zero carbon is a key theme with the aim for all tenants' homes to meet an EPC rating of C or above by 2030. Prioritisation will be given to high emission homes dependent on coal or oil and improvements will focus on a fabric first approach and deep retrofit wherever possible.</p> <p>There is also the commitment to replace all inefficient car park lighting with LEDs and to review HRA assets to assess if any sites are suitable for community electric vehicle (EV) charging points</p> <p>There is a commitment in the council's budget of £4.1 million per year until 2030, but grant funding, including Social Housing Decarbonisation Fund (SHDF) and Energy Company Obligation (ECO) will be explored in Year 3. Grants will release funding to address other priorities or enable the programme of works to be accelerated</p>
3	Build technical skills to support the delivery of further efficiency improvement works key to our zero carbon agenda in order to complete works directly rather than via contractors (e.g., air source heat pumps, solar thermal, solar PV etc).	There has been a focus on building technical skills and capacity to support the delivery of further efficiency improvement works key to the council's zero carbon agenda in order to complete works directly rather than via contractors (e.g., installation of air source heat pumps, solar thermal, solar PV; retrofit assessors and co-ordinator).

No.	Sector/Action	Update
	Buildings	
4	Complete a review of councils' property portfolio to build retrofit plans to drive energy efficiency across the estate and deliver zero carbon agenda.	<p>An energy and carbon review of properties in the council's portfolio is in progress with the aim to identify opportunities to reduce energy consumption and carbon emissions. The review is due to be completed by the end of May 2022 and will help determine priorities and actions across the estate.</p> <p>The Accommodation project has considered the council's commitment to zero carbon in the changes planned across both Whitwick Business Centre and Stenson House. Final plans are under development.</p>
New		NWLDC has been awarded £763,500 by the Midlands Net Zero Hub, after a successful bid in the Sustainable Warmth Competition, to install energy efficiency measures to low income private households in NWL. Funding is provided by on-gas (LAD3) and off-gas (HUG) schemes. This project helps to tackle fuel poverty as well as contribute to the council's carbon reduction ambitions. Leicestershire Authorities are working together to develop a county-wide partnership to deliver Sustainable Warmth across Leicestershire
New		With the support of Midland Net Zero Hub, desk top solar PV surveys have been completed on key buildings in the portfolio to provide insight to the opportunities. Ashby Leisure Centre (formerly Hood Park) has been identified as one of the most suitable locations.
	Power/Buildings	
5	Build the council's zero carbon ambition into the substantive review of the local plan including renewable energy, primarily wind and solar; energy efficiency standards for new homes; provision of electric vehicle charging points for residential and employment developments, where electricity supply permits	<p>As part of the Local Plan Review, a consultation was undertaken (17/1/22-14/3/22) on potential development strategy and policy options which outlined a number of key issues that the Local Plan Review must address, including climate change. The consultation set out draft policy wording for renewable energy, energy efficiency, reducing carbon, overheating, water efficiency standards and how new developments can demonstrate that they are addressing climate change. The draft policies included targets for both solar and wind energy generation to 2039 and an efficiency target that seeks higher than Building Regulation targets with regard to energy efficiency standards in new housing developments. There has been a considerable number of responses which will help shape Local Plan policies.</p> <p>The council has secured funding from government to review current Good Design Supplementary Planning Guidance to respond to the governments new design codes and produce a toolkit of design principles to consider for new developments, such as street character, building type and façade as well as environmental, heritage and wellbeing factors.</p> <p>Consultants have been commissioned to assess current provision of wide range of infrastructure such as schools, doctors, and utilities (e.g. electricity, water and gas) and to assess the implications for these arising from proposed new development so as to inform policies in new Local Plan to ensure that new development provides the new infrastructure required.</p> <p>Electric charging points provision now forms part of Building Regulations legislation but should there be any delays to the changes before the final draft of the Local Plan, this will be re-visited.</p>
6	Explore the setting up of a carbon offset fund	The council needs to better understand the amount of development to be provided for and what this means in terms of potential carbon emissions, after which options will be explored on how to address the issue of offsetting.

No.	Sector/Action	Update
	Power	
7	Convert car park lighting in public car parks to LED	Converting the car park lighting to LED has proved more complex and costly than anticipated. There is a request for additional funding in Year 3 to support this activity.
8	Install solar panels on Whitwick and Coalville Leisure Centre	Whitwick and Coalville Leisure Centre has been built to BREEAM building standards, an industry recognised sustainability assessment method, and has solar PV fitted and electric vehicle charging points.
9	Review and monitor electricity and gas usage across the council's estate	A key focus has been on sourcing accurate and timely utility usage data and checking that all energy usage appears on the corporate contracts. This provides a solid foundation to review energy usage at location level. Data is reported in section 4.
10	Explore mine water heating opportunities in Coalville	Mine water could provide low carbon, low cost heat from water from disused mines underneath Coalville with the potential to feed the new Leisure Centre, Stephenson College and the council offices. Officers have engaged with the Coal Authority and through initial discussions determined that the current licence does not expire until May 2024. Work will continue to explore the feasibility in partnership with the Coal Authority.
New		Leicestershire Authorities are working together on a "Solar Together Leicestershire" group buying scheme to support residents who have been considering installing solar panels and/or battery storage. The scheme launch date is 9 May 2022 with an auction to be held on 14 June and installations to follow within 6 months. It is open to residents and small and medium businesses.
	Waste	
11	Continue with the food waste trial (4000 households) and drive participation rates	In 2021/22, 206.68 tonnes of food waste were collected, which equates to a saving of 155.01 tCO _{2e} . On average 16.1 tonnes of food waste is collected each month and diverted away from landfill, representing a carbon saving of 12.08 tCO _{2e} . Current participation rate in the food waste trial is 32% and activities are planned to drive improvements. The food waste scheme received publicity as part of the COP26 – with an article in Carbon Copy sharing our learnings with others considering following a similar route
12	Build business case to expand food waste service across the district	Whilst it was anticipated that 2022/23 would see the roll-out of food waste collections across the district, this has been paused pending government funding support, an update is expected in spring. The business case is being developed.
13	Second container trial with 250 residents	The second trial is underway and was significantly over-subscribed.
	Transport	
14	Complete Fleet Management Strategy and present to Scrutiny and Cabinet	Fleet Management Strategy was approved by Cabinet in September 2021 which informed the fleet replacement capital plan and led to switching the fleet from diesel to a hydrotreated vegetable oil (HVO) in January. HVO is a drop-in fuel which reduces CO ₂ emissions by up to 90%; vehicles can switch to it immediately without modification. Data is reported in section 4. Fleet replacement for cars will be electric next cycle; the housing fleet will move to electric vans and an initial trial is planned with representation from across the trades which will include home charging. The larger fleet will be replaced with diesel powered engines and run on HVO fuel. As the market is changing rapidly, there is a commitment to explore new technologies as part of each vehicle replacement decision. In addition, Waste Services undertook a route optimisation review of collection routes to reduce the distance travelled by the crews which will have a positive impact on fuel costs and emissions.

No.	Sector/Action	Update
	Transport	
15	Install EV charging points in a Coalville car park and the depot	<p>Four EV charging points have been installed at Margaret Street in Coalville, bringing the total locations to five across the council's public car parks. The installation was supported by a grant from the Office for Zero Emission Vehicles (OZEV) of £26,000 and was available for use by residents from November 2021.</p> <p>The electric vehicle charging cost structure was reviewed and changed from a cost per hour to a charge based on kWh usage. The aim is to make the charging costs fairer, especially for those residents who depend on council charging points overnight to charge their vehicles.</p> <p>Analysis of the usage indicates that there has been significant usage growth in 2021/22 saving an estimated 8.25 tCO_{2e} versus 1.14 tCO_{2e} in 2020/21. Further information is provided in Appendix One.</p>
16	Explore EV charge points at council offices & Whitwick & Coalville Leisure Centre.	EV charging points have been installed at Whitwick & Coalville Leisure Centre and are planned at Whitwick Business Centre.
17	Complete Cycling & Walking Strategy and develop plans for local infrastructure	The initial strategic overview, which dovetails into the LCC strategy, is now complete and the second phase is underway. This will provide a detailed action plan that builds on the strategy to understand the financial and operational implications of developing routes and maintaining them. It is due to be completed by the end of the year.
18	Reduce taxi vehicle emissions through lower licencing fees for EURO5 engines - target in CDP is 93% 2021/22; 100% 2022/23	<p>The taxi licence change ensuring that all taxis are a minimum of a Euro 5 engine, has been implemented. The target in the Council Delivery Plan is to achieve 93% of vehicles with a Euro 5 engine or higher in 2021/22 and 100% by 2022/23. The current status is 98%.</p> <p>A further target was determined at the Licensing Committee on 19 February 2020 with the decision that from 1 January 2025, all hackney carriage and private hire vehicles must be fitted with at least a Euro 6 compliant engine or equivalent using retrofit technology. Any vehicle with a Euro 5 compliant engine or older will not be licensed at the time of renewal.</p>
19	Review travel expense policy to encourage staff to consider their carbon footprint	Employee travel and the travel expense policy has been reviewed and a number of options are being explored. This work will be concluded in Year 3.
	Other	
20	Free trees scheme will return in November 2021	17,500 trees were given away in 2021 and the scheme will return again in November 2022.
21	Explore tree planting opportunities and funding on council owned land.	Officers have been working with LCC to explore tree planting opportunities and funding on council owned land and been jointly awarded a grant to plant 70 trees from the Urban Tree Challenge Fund.
22	Undertake foundation work to complete analysis if the council's indirect emissions (Scope 3) in order to understand risks, identify and prioritise opportunities	Initial works has been undertaken and a source identified to complete the analysis. However, to get the value from any assessment, finance and procurement support is required. Year 3 will focus on establishing the approach to explore Scope 3 emissions reporting, to shape the council's procurement policies and influence spend.
23	Support Parish Councils to understand their carbon footprint providing coaching sessions on a community carbon calculator.	This was completed in June 2021.

No.	Sector/Action	Update
	Other	
New		The Air Quality Action Plan has been adopted for North West Leicestershire. Following a successful bid to DEFRA, a grant has been awarded to monitor and raise awareness of the impact of PM2.5 particulate matter, working jointly with Harborough District Council.
New		A biodiversity report summarising the council's involvement and support has been published and is available on the council's website.
New		Business Focus continues to promote zero carbon related activity including signposting to grants, specific schemes, such as the Wheels to Work to get people cycling to work and encouraging bus travel, and carbon footprinting webinars aimed at small businesses.

YEAR THREE PLANS

No.	Sector	Action Plan Overview
	Buildings	
1	Social Housing	Implement the asset management plan, including the zero carbon commitments to drive energy efficiency improvements and emission reduction in tenants' homes. Explore grant funding including Social Housing Decarbonisation Fund (SHDF) and Energy Company Obligation (ECO) Fit LED lighting and explore EV charging opportunities across the HRA estate. Develop reporting to demonstrate emission benefits from property improvements
2	Property	Develop a property portfolio energy efficiency action plan and address commercial F&G EPC ratings Explore options for retrofitting of technology that will generate power at a lower carbon cost, including the Accommodation project Build better understanding capacity of the infrastructure networks around our buildings to support a switch to lower carbon power sources and EV charging. Regeneration activity will consider zero carbon implications within all projects. Develop reporting to demonstrate emission benefits from property improvements
3	Leisure Centres	Together with Everyone Active, develop action plan to drive a reduction in emissions at the Leisure Centres.
4	Private Sector	Together with Leicestershire Authorities partnership, deliver the Sustainable Warmth programme to increase the energy performance of homes across the district improve the efficiency of some of the worst energy efficient homes in the district.
	Power	
5	Utilities	Develop a utilities strategy. Review usage data/property EPCs to identify opportunities to reduce consumption at council owned and operated buildings.
6	LED lighting	Convert all the lighting in NWLDC car parks to LED and review HRA lighting.
7	Planning	Build the council's zero carbon ambition into the substantive review of the Local Plan including renewable energy and energy efficiency standards for new homes. Reflect the council's zero carbon ambitions in the Good Design Supplementary Planning Guidance Explore carbon offset options including opportunities for the council to be a biodiversity and carbon offset provider
8	Solar Together	Support the delivery of the Solar Together group buying scheme to assist householders and small businesses to install solar PV and battery storage
9	Mine Water	Continue to explore mine water feasibility - this technology could provide low carbon, low cost heat from water from dis-used mines underneath Coalville with the potential to feed the new Leisure Centre, Stephenson College and the council offices.
	Waste	
10	Recycle more	Refresh the Recycle more strategy. Develop reporting to reflect landfill kgs per person and estimate emission savings through diverting waste from landfill.

No.	Sector	Action Plan Overview
	Waste	
11	Food Waste	Continue to develop the business case and explore government funding to expand to provide a cross-district service.
	Transport	
12	Fleet	Continue to roll out the Fleet Management Strategy, including fleet replacement, infrastructure and housing trials.
13	Cycling & Walking	Complete action plan Q3 and develop local infrastructure plans and priorities to build connectivity improvements.
14	EV charging	Install EV charging at Peggs Close in Measham and Whitwick Business Centre.
		Plan EV charging at Money Hill car park.
		Support the Flex-D solar hub project with Leicestershire Authorities to develop a business case and seek funding
		Explore further EV opportunities across the council's portfolio, including HRA.
15	Employee Travel	Conclude the review of employee travel and travel expense policy to encourage staff to consider their carbon footprint.
	Other	
16	Finance	Investment strategy - review treasury guidelines for use next financial year.
		Explore how to reflect and embed zero carbon impact in financial decision making
17	Reporting	Establish approach to explore Scope 3 emissions (indirect, supply chain) reporting, to shape the council's procurement policies and influence spend
18	Air Quality	Continue delivering air quality action plan
19	Business	Continue to promote zero carbon related activity to local businesses
20	Biodiversity	Continue free tree scheme, planting trees and support communities with grants
21	Engagement	Consider LCC net zero consultation and use feedback to shape district engagement plan.