NORTH WEST LEICESTERSHIRE DISTRICT COUNCIL
CORPORATE SCRUTINY COMMITTEE
THURSDAY 29 AUGUST 2024

ZERO CARBON REPORT

APPENDIX ONE – Summary of Year Four activity

No.	Sector	Action Plan Overview	Update
	Buildings		
1	Social Housing	*The actions below are all drawn directly from the Housing Asset Management Plan approved by Cabinet in July 2022 and included given the scale of the contribution of social housing to the Council's carbon footprint.*	-
		Start retrofitting green measures to existing housing owned by the Council or through the Asset Management Plan process consider demolition /or rebuild opportunities to improve the building energy efficiency (including insulation, improving air tightness, mechanical ventilation with heat recovery, air source heat pumps, solar PV) targeting high emission homes first and including pilot projects to establish costs and risks of a potential wider roll out throughout the district.	The Council continues to take a fabric first, whole house solution working together with Housing's contracted retrofit partner. In 2023/24 the following measures were installed - 2 air sourced heat pumps, 28 loft insulation & 112 top ups, 48 low energy lighting, and 24 Solar PV. The improvement plan includes the use of funding from the Social Housing Decarbonisation Fund (2.2). The Asset Management Plan is due for renewal and following stock surveys of significant levels of the housing stock is programmed to be updated in Q4 2024/5.
		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/m2.yr). PassivHaus or equivalent should be considered and an assessment against Net Zero Carbon should be required.	A revised new build/new development standard is under development. This work will continue into next year.
		Set best practice energy standards of new buildings built or acquired by the council. This will be consistent with BEIS energy mission to halve energy use in new buildings. PassivHaus or equivalent will be considered and an assessment against Net Zero Carbon will also be undertaken.	
		Continue to reduce the Council's carbon emissions and to achieve a minimum Energy Performance Certificate (EPC) rating of C by 2030 for all homes, seeking funding to support this with alternative options explored where this is not feasible.	The commitment to all EPCs being rated C or above by 2030 is unchanged. The plan is for all EPCs to have been refreshed by June 2025. Stock condition surveys are currently being undertaken which will inform the asset and investment plan and shape any funding bids.
		Review all data available to confirm low efficiency homes through EPC data, future capital works due to the fabric of the building and construction types. A risk rating will be produced against each property which will assist the Council in bidding for future grants to install green measures.	

		Review current EPC ratings and determine if these are accurate based on information we hold on similar properties where an EPC has been completed within the last two years. This will help in reclassifying EPC ratings where they are incorrect. New EPCs will be completed to ensure there is an accurate information to inform future bids.	
		Develop a programme to replace all inefficient car park lighting schemes in the council's HRA-owned land. This will include a programme to replace existing lighting with efficient LEDs, and improve controls to save energy in the longer term.	It has been determined that some car parks do not have any lighting and others are lit by Leicestershire County Council (LCC) Highways. This lighting review will be built into the wider asset and investment plan.
2	Property	Develop a full commercial Property Asset Management Plan to drive energy efficiency improvements across the portfolio and inform and shape the capital plan	An asset management tool kit has been developed and the procurement of a computer aided facilities management (CAFM) system is planned to go to Cabinet in July 2024. The system data will enable informed decisions about which assets retention and asset improvement including to energy efficiency and the wider zero carbon agenda.
		Explore options for retrofitting of technology that will generate power at a lower carbon cost, including the Accommodation project	As part of the Accommodation options were considered but some were restricted by funding - both Whitwick Business Centre and Stenson House had some LED lighting improvements. Other reactive work opportunities continue to be explored.
		Build better understanding capacity of the infrastructure networks around our buildings to support a switch to lower carbon power sources and EV charging at commercial properties.	Most of the property portfolio has limited electric supply capacity and new supplies would be required to support EV charging, as per the installation at Whitwick Business Centre.
		Regeneration activity will consider zero carbon implications and biodiversity net gain within all projects.	Works at Marlborough Centre and the Memorial Workspace at Wolsey Road are both undergoing works in order to meet the latest building regulations. Other projects at earlier stages of implementation will continue to explore the zero carbon related opportunities available.
		Develop improved reporting to demonstrate emission benefits from property improvements	This has been tracked by EPC improvements as certificates are refreshed, but going forwards, will be reported via the proposed CAFM system.
3	Leisure Centres	Together with Everyone Active, continue to drive a reduction in emissions at the Leisure Centres, build the business case to install solar panels and explore funding opportunities to support delivery of energy and carbon reductions.	The Council's leisure partner, Everyone Active (EA), continue to take a proactive approach to reducing emissions at the leisure centres. Actions taken include ongoing staff awareness sessions, the refining of Building Management Systems, the introduction of a staff carbon reduction monthly reward scheme, and the introduction of a Green Travel Plan. A funding bid application to Sport England for just under £250,000 to install solar panels at Whitwick and Coalville Leisure Centre has been provisionally successful, and the potential installation of solar panels at Ashby Leisure Centre and Lido has been included as a provisional item in the Capital Programme. In addition, EA have engaged a consultant, Leisure Energy, to undertake a leisure centre decarbonisation audit at Ashby Leisure Centre and Lido.

4	Private Sector	Together with Green Living Leicestershire partnership, deliver the Sustainable Warmth programme (LAD3 on-gas and HUG2 off-gas) to improve the efficiency of some of the worst energy efficient homes in the district.	The LAD3 (on-gas) scheme is now complete. The follow on off -gas scheme, HUG2, is still underway. This is a two-year scheme targeting a fabric first approach. Whilst in most cases there is a qualifying maximum household income level and the property has to be rated EPC D or below, there are some government-set postcodes which do not need to meet the income criteria. Running in parallel to this scheme is a "Home Energy Retrofit Offer" (HERO) which provides support to eligible residents living in inefficient homes and offers tailored support via home visits to access grant funding or assess their homes for suitable improvements.
	Power		
5	Utilities	Develop a utilities strategy.	The procurement of utilities has been focused on availability, stability, continuity of supply requirements and competitive pricing. The focus has been on monitoring the gas market after the contract ended and aligning the expiry dates of both the gas and electric contracts to end March 2025 in preparation of a long-term deal now the market rates have settled.
		Continue to review usage data/property EPCs to identify opportunities to reduce consumption at council owned and operated buildings.	Work has been undertaken to review electrical meter to ensure all supplies remain relevant alongside fitting automated meter readings across the portfolio. Reporting options will be explored via the proposed CAFM system.
6	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.	The new Local Plan includes draft policies on Renewable Energy (including targets for solar and wind energy generation) and Reducing Carbon Emissions which seeks to ensure that new development addresses the need to reduce carbon emissions.
		Reflect the council's zero carbon ambitions in the Good Design Supplementary Planning Guidance refresh.	Work is ongoing on the Good Design Supplementary Planning Guidance which is due to be adopted in Q4 2024/25
		Explore carbon offset options including opportunities for the council to be a biodiversity and carbon offset provider	Draft Local Plan Policy AP4(2) includes reference to the Council's carbon offset fund and sets out the circumstances where a financial contribution would be required. The Draft Local Plan acknowledges that further work needs to be done on the feasibility of setting up a carbon offset fund.
		Implement Biodiversity Net Gain legislation requirements (from November 2023) and support the development of Local Nature Recovery Strategy (lead by Leicestershire County Council)	The requirements for Biodiversity Net Gain (BNG) for planning applications are detailed on the planning and development section of our website. The draft Local Plan includes a policy in respect of BNG which reflects national policy and sets out the key priorities for achieving BNG.
7	Solar Together	Support the delivery of the second Solar Together group buying scheme to assist householders and small businesses to install solar PV and battery storage	In the second Solar Together scheme with iChoosr in 2023, there were 3637 registrations of interest across Leicestershire, and a total of 215 installations completed along with 8 battery retrofits. This is a resident investment in renewables of over £2.2 million with estimated savings of CO2 of 4,753 tonnes over 25 years. Within NWL there were 385 expressions of interest and 26 solar PV installations across NWL (316 panels), 23 of which had batteries fitted; estimated savings of CO2 of 565 tonnes over 25 years. The scheme is run collectively under the GLL partnership and referrals from the scheme are used to fund the costs of targeting data and mailshots. A

			third scheme, Solar Together 24, will be launching in Summer 2024.
8	Energy Switch	Support the delivery of the Energy Switch group buying scheme to assist householders to switch to renewable energy	Whilst the initial contract has ended, the Council is signing up to continue to support this scheme and a new contract is in hand. There are no schemes currently running due to the changes in the energy market but the indication is an auction may run in late 2024 giving residents the opportunity to benchmark their current utility costs.
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.	An initial meeting was held with the Coal Authority to update on licence status and options to explore the opportunity to heat Whitwick and Coalville Leisure Centre (and other buildings) with mine water heating. Midland Net Zero Hub has also been approached and offered to provide advice and support. The mine water project will start with initial investigation of the below ground status, a quotation has been requested from the Coal Authority. This will be a long term project.
	Waste		
#	Recycle more	Refresh the Recycle more plan incorporating all relevant actions from the Zero Carbon Roadmap and Action Plan.	A wider review of Waste Services began in May 2023 and is still continuing. When completed it will shape the refresh and development of the Recycle more plan which will also incorporate the relevant actions from the Zero Carbon Roadmap and Action Plan.
		Develop key performance indicators for waste, recycling and emissions to monitor progress and impact of the Recycle more refresh	In February 2024, Defra confirmed the household recycling rate for 2022/23 was 43%. Compared to 2021/22, this was a fall of 3.6% due to the hot summer experienced in 2022, resulting in 1,836 tonnes less of garden waste collected compared to 2021/22. All of the councils in Leicestershire experienced a fall in the recycling rate, with the exception of Leicester City Council and NWLDC has the second highest recycling rate in Leicestershire. However, the amount of household waste (recycling, garden waste and refuse) collected per person has reduced by 36.7 kg from 410.1 kg to 373.4 kg, which was the largest decrease in Leicestershire. Also, the amount of residual (non-recyclable) waste collected per household has reduced by 22.2 kg from 487.2 kg to 465.1 kg.
		Continue with the food waste collection trials and prepare for legislative changes and funding to facilitate district-wide collections.	The food waste collection trial for 4,000 households continues. Since April 2023 to January 2024, 165 tonnes have been collected, representing a carbon saving of 124 tonnes / tCO2e. In January 2024, Defra confirmed the capital finding available for food waste collection vehicles and food waste containers. Officers are carrying out a cost analysis to confirm if the funding is sufficient. Defra have not yet confirmed the revenue funding which will be made available to councils for food waste collections. Defra requires councils to provide food waste collections to all households from April 2026.

	Transport		
11	Fleet	Continue to roll out the Fleet Management Strategy, including fleet replacement, infrastructure and housing trials.	There are now 14 electric vehicles in the fleet at the end of 2023/24. The pool cars and the enforcement vehicle are welcomed by tyre staff who have to undergo a training session. The parks team has one vehicle with another due shortly and plans to install charging infrastructure at the Parks depot are underway. The Housing trial has been more challenging and has not developed as originally envisaged due to contractual terms and conditions, suitability of properties for home charging and Housing team resource. resource. Charging is taking place at Whitwick Business Centre or Linden Way depot in the meantime. As per the commitment in the Fleet Management Strategy, alternative options to ICE vehicles are explored; towing remains a challenge. The Waste Services review will impact on future fleet requirements.
#	Cycling & Walking	Delivery of cycling & walking in Kegworth.	This work is underway and will continue into next year with focus on "quiet lane" improvements in Kegworth.
		Work with County to support the development of the NWL element of Leicestershire Cycling & Walking Infrastructure Plan with a view to being able to access Active Travel England funding to be able to deliver elements of NWL LCWIP.	The NWL Local Cycling and Walking Infrastructure Plan (LCWIP) has been completed. As part of this, engagement was undertaken with key stakeholders including LCC to refine it into its current version. The document, along with the NWL Cycling and Walking Strategy, will be taken to Cabinet in February 2024 for adoption so it can be included as an evidence base in the new Local Plan. This will out the Council in the best possible position to then be able to access national or other funding streams to be able to deliver improvements as highlighted and prioritised within the LCWIP.
		Complete cycling & walking action plan in Q3 and develop local infrastructure plans and priorities to build connectivity improvements.	
#	EV charging	Complete installation of EV charging at Whitwick Business Centre and install EV charging at Ibstock car park	Both installations have been completed. Ibstock High Street car park was completed in August 2023. Whitwick Business Centre was completed in September 2023 and is utilised for the Council's electric fleet.
		Support the inclusion of EV charging at Money Hill car park.	The Flex D Solar Hub EV charging project has moved from London Road Car Park in Coalville and will now be delivered in Ashby at the new Money Hill Car Park (subject to planning permission) The new car park is due to be constructed and handed over in Q1. Planning permission is due to be submitted in Q4 by the external project team. This is a Green Living Leicestershire partnership project with all the Leicestershire Districts and Boroughs.
		Support the delivery of Flex-D solar hub project at London Road with Green Living Leicestershire partnership and Midland Net Zero Hub.	
		Explore further EV charging opportunities across the council's property portfolio, including HRA.	A consultation exercise is underway with the tenants at The Courtyard to clarify interest in EV charging. There is electrical infrastructure nearby. In Housing, activity has been delayed due to other priorities.
14	Employee Travel	Conclude the review of employee travel and travel expense policy to encourage staff to consider their carbon footprint.	After a review of mileage by team and individual, the decision was taken to not change the structure of mileage expenses. However, the council runs an EV car salary sacrifice scheme which has been promoted internally alongside encouraging staff to use one of the two electric pool cars.
	Other		
15	Finance	Explore how to reflect and embed zero carbon impact in financial decision making, including business cases, budget setting and the capital process, and make	The new capital strategy group is providing the opportunity to consider the zero carbon impact of proposed investments. The transition to Unit 4 has impacted the ability to access up to date spend data

		preparations to explore Scope 3 emissions (indirect, supply chain related) in 2024/25.	to help inform supplier priorities around Scope 3 emissions but will be carried forward into next year.
16	Procurement	Contribute to the Procurement Strategy delivery and zero carbon related elements	Initial work was under taken but with change of leadership, this work will continue into next year.
17	Reporting	Establish approach to explore Scope 3 emissions (indirect, supply chain related) reporting, to shape the council's procurement policies and influence spend	Business mileage has been added into the emissions analysis this year and back dated to 2019. Data on staff commuting is harder and would have to be based on estimates of distance from the relevant office and assumptions about vehicles and frequency of coming into the office. This may be explored in a refresh of a staff travel survey in Q3.
18	Air Quality	Continue delivering air quality action plan	The Air Quality Action Plan has been delivered. An update on Air Quality will be provided to members in June 2024 at Community Scrutiny and then Cabinet in September.
19	Business	Continue to promote zero carbon related activity to local businesses	The approach taken is to signpost businesses to those who are best qualified to provide advice. This year saw a move to a more self-serve web-based arrangement which is consistent with other council services.
#	Biodiversity	Continue free tree scheme, planting trees and support communities with grants	As part of the 2023 Free Tree Scheme, 32,800 trees/hedges were given away, 22,500 to residents who live within the National Forest boundary. In addition, on top of the trees planted at the Hermitage Ecopark, in excess of 40 trees have also been planted within the Coalville area at locations such as Coalville Park and cemeteries. The Green Shoots Scheme helps communities brighten up community areas in the Spring through the planting of bulbs. In 2023/24, over 60,000 bulbs were issued to community groups.
		In partnership with LCC, plant trees on highway verges in Coalville area in Winter 2023/24	LCC has indicated that it is still the intention to plant trees on highway verges at Meadow Lane, Abbots Oak Drive, and Blackwood. However, capacity issues and increased tree works caused by recent storms has put additional pressure on the team meaning there is a risk the works may not be delivered this winter.
		Deliver elements of Hermitage Recreation Ground Eco Park and improve biodiversity working with the National Forest and Woodland Trust funded Tiny Forest	Work on the Ecopark continues. The Tiny Forest has been completed and it's anticipated that over 3,000 additional trees will be planted prior to the end of March 2024.
		Develop Tree Strategy for the planting and management of the Council's Tree stock.	Work on developing the Tree Management Strategy continues. The first draft has been developed and gives detail around how the Council will manage its tree and hedgerow stock as well as the partners the Council will work with to develop tree planting projects, identifying areas where additional trees could be planted, and highlighting tree planting projects and targets to help support the Council's Zero Carbon targets.
21	Engagement	Work in conjunction with Green Living Leicestershire to develop district engagement plan.	Working together with LCC community team, a community net zero guide was launched in July 2023 and promoted to parish councils and other community groups. Links are available on the NWLDC website for easy access. Other opportunities have been to promote key themes and advice at Leicestershire events, for example Health & Wellness event at Whitwick & Coalville Leisure Centre.
22	Governance	Consider the actions necessary for the Council to become ISO14001 accredited and the timescales involved	After consideration, the proposal is to undertake a benchmarking activity to understand how the Council currently performs again the principles of ISO14001. Options are being explored and this activity will continue into next year.

APPENDIX TWO

Members have previously requested that officers consider how they could report the impact of action taken on carbon emissions. This Appendix provides an update on the work undertaken to date.

1. EMISSIONS MEASUREMENT

Measuring emissions is highly complex. At a simple level, usage data can be converted to emissions by applying UK Government Department for Energy Security and Net Zero (DESNZ) carbon emission factors.

Greenhouse gas emissions are divided into difference scopes:

- Scope 1 – the emissions that the Council makes directly
  - e.g. running gas boilers and vehicle fuel

- Scope 2 – the emissions that the Council makes indirectly
  - e.g. electricity to heat or power buildings

- Scope 3 – the most complex, the emissions that the Council is indirectly responsible for up and down its value chain
  - e.g. leased assets, buying products from its suppliers

Greenhouse gas emissions are usually reported in the unit of "CO_{2e}" which is an abbreviation for "carbon dioxide equivalent". It is recognised as the standard unit to measure and compare emissions from greenhouse gases based on how severely they contribute to global warming. Metrics for CO_{2e} show how much a gas would contribute to global warming if it were carbon dioxide, which is estimated to account for 80% of emissions on average in recent years.

It should be noted that in the future, emissions reporting may expand to report on more categories 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.

At the Council, an example would be that the Council's property portfolio could change through acquisition or sale impacting utility usage; but a reduction in usage could also be due to the change to a more efficient, lower carbon heating system.

The aim is to increase awareness of our greenhouse gas emissions, to use data to help influence decision making and to improve emissions reporting.
As data collection is improved, further Scope 3 emissions will be considered.

Scope 1	Scope 2	Scope 3
Fuel combustion Company vehicles Fugitive emissions	Purchased electricity, heat and steam	Purchased goods and services Business travel Employee commuting Waste disposal Use of sold products Transportation and distribution (up- and downstream) Investments Leased assets and franchises

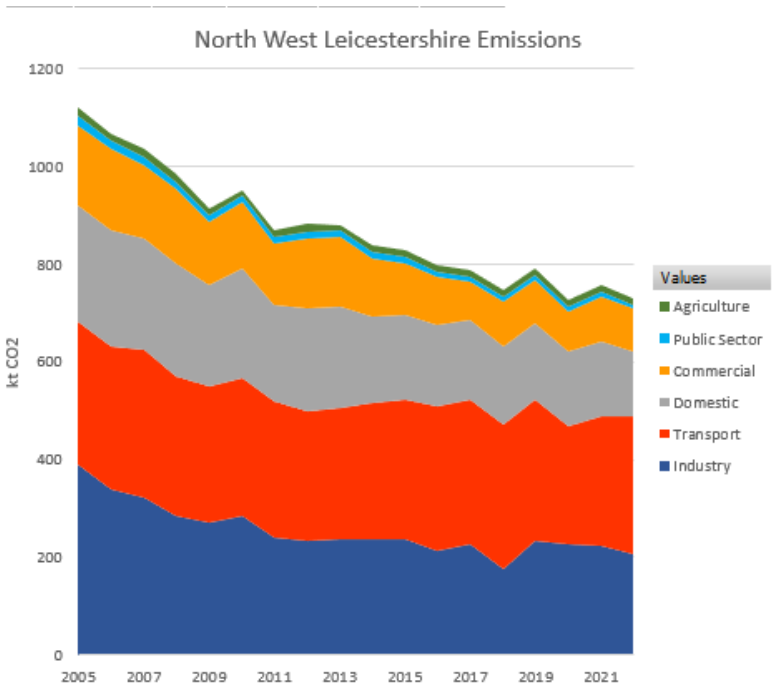
2. DISTRICT EMISSIONS

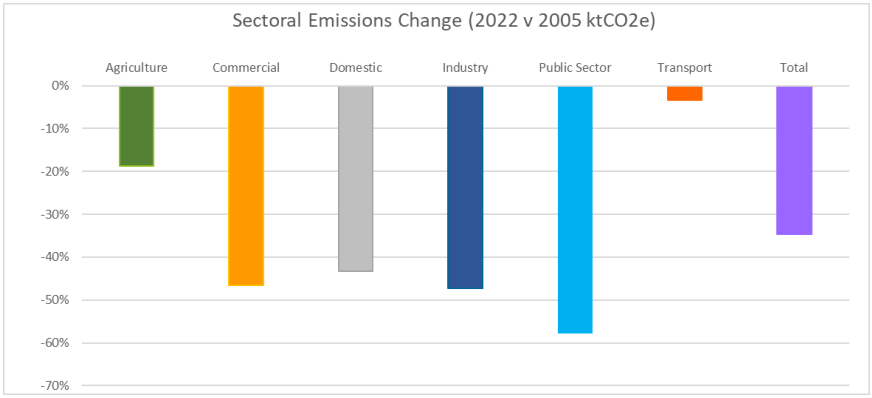
The Department for Energy Security and Net Zero (DESNZ, formerly BEIS) produces local authority territorial carbon emission estimates data released annually each summer. This data is produced two years in arrears, and is based on territorial CO_2 emissions, those that occur within the district's borders.

These statistics provide the most reliable and consistent breakdown of CO_{2e} emissions across the country using nationally available datasets going back to 2005. (Source: UK local authority and regional greenhouse gas emissions statistics - GOV.UK (www.gov.uk)

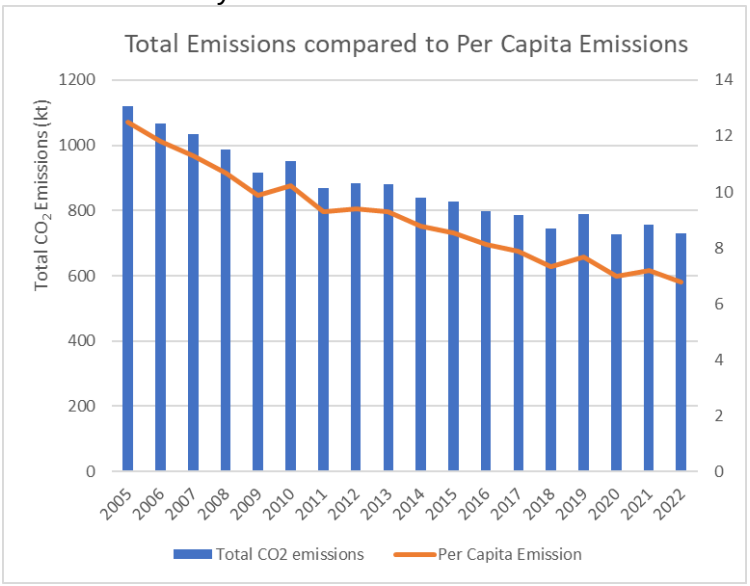
Each year, North West Leicestershire district emissions will be reported to assess whether carbon reduction is 'on track' using the dataset that DESNZ publishes of emissions within the scope of Local Authorities. The data used excludes emissions that Local Authorities do not have direct influence over – for example, transport motorway emissions are removed.

The data is split by sector and the charts below illustrates the changes between 2005-2022.





Adding in population data indicates that the reduction per capita is improving at a similar rate over recent years.



3. COUNCIL EMISSIONS

3.1. Overview

Local Partnerships has developed a greenhouse gas accounting tool to help councils report emissions, based on the DESNZ conversion factors. It is the tool that the Council has selected to report. The Council's reporting has been completed for the main scope 1 (gas, fleet fuel) and scope 2 (electricity) elements over the last five financial years.

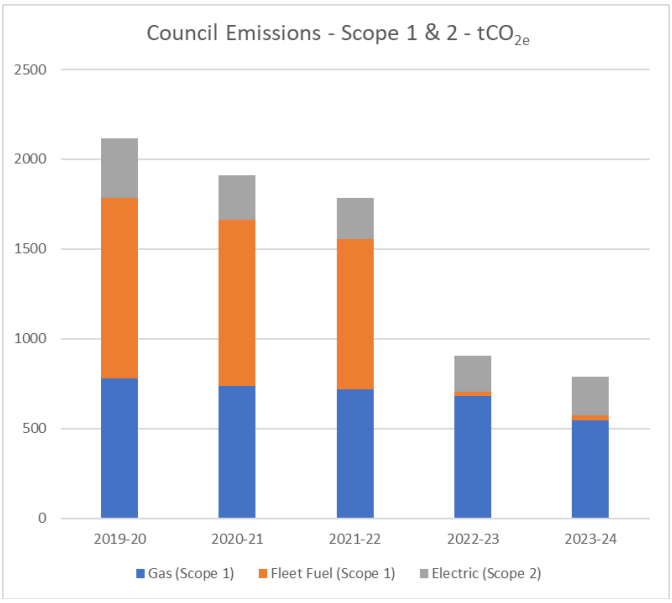
Usage data for utilities has been sourced from the Council's invoices and fleet data has been sourced from fuel systems. Leisure Centre (LC) usage has been excluded from this data as Hermitage LC and Ashby LC and Lido moved to Everyone Active during 2019. Hermitage LC closed in 2022 and Whitwick and Coalville Leisure Centre opened. This reporting will be a future development under Scope 3.

Summary of emissions status:

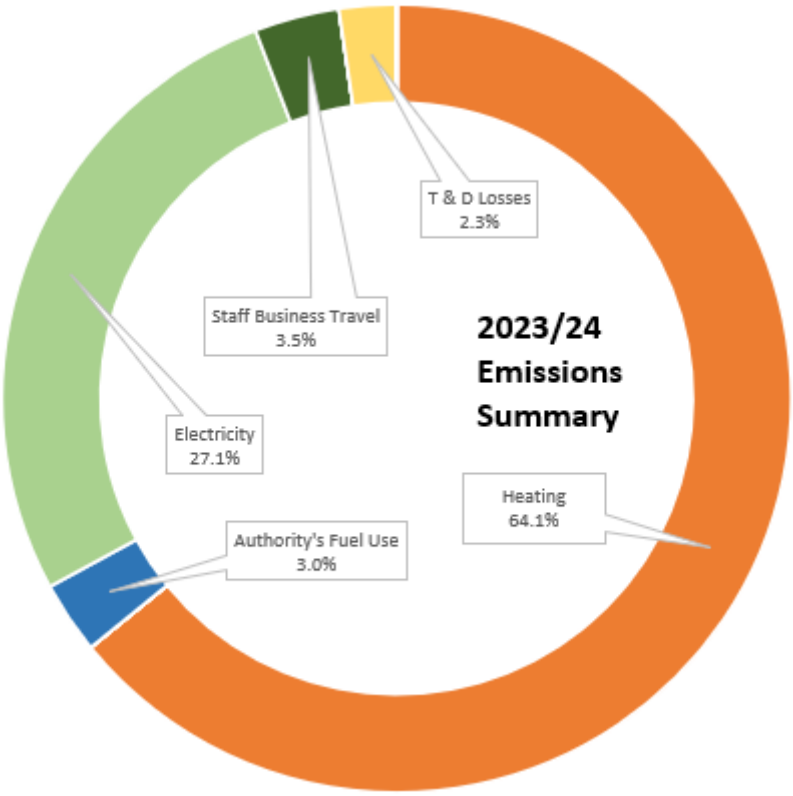
GHG emissions tCO2e	Sector	2023-24	2022-23	% Change 23/24 v 22/23	2021-22	% Change 22/23 v 21/22	2020-21	% Change 21/22 v 20/21	2019-20	% Change 20/21 v 19/20	% Change 23/24 v 19/20	Difference 23/24 v 19/20
Scope 1 - Direct Emissions	**Total**	**592.1**	**704.2**	**-16%**	**1554.9**	**-55%**	**1670.3**	**-7%**	**1783.6**	**-6%**	**-67%**	**-1191.5**
Gas	Buildings	566.9	679.12	-17%	716.4	-5%	738.0	-3%	779.8	-5%	-27%	-212.9
Diesel, HVO	Fleet	25.3	25.1	1%	838.5	-97%	932.3	-10%	1003.8	-7%	-97%	-978.5
Scope 2 - Energy indirect	**Total**	**219.6**	**201.3**	**9%**	**228.7**	**-12%**	**251.4**	**-9%**	**335.2**	**-25%**	**-34%**	**-115.5**
Purchased electricity	Buildings	219.0	201.3	9%	228.7	-12%	251.4	-9%	335.2	-25%	-35%	-116.2
Purchased electricity	Fleet	0.6	0.0	-	0.0	-	0.0	-	0.0	-	-	0.6
Total Scope 1 & 2 Emission	**Total**	**811.8**	**905.5**	**-10%**	**1783.6**	**-49%**	**1921.7**	**-7%**	**2118.8**	**-9%**	**-62%**	**-1307.0**
Scope 3 - Indirect Emission	**Total**	**49.6**	**49.0**	**1%**	**50.2**	**-2%**	**46.7**	**7%**	**78.3**	**-40%**	**-37%**	**-28.7**
T&D Loss - electricity		20.0	19.8	1%	21.3	-7%	21.7	-2%	28.7	-24%	-30%	-8.8
Business mileage		29.7	29.2	2%	28.8	1%	25.0	15%	49.6	-50%	-40%	-19.9

***** T&D Loss is the difference between the electricity supplied and the electricity converted into useful power

It is recognised that Covid will have impacted usage both positively and negatively during 2020/21 and 2021/22.

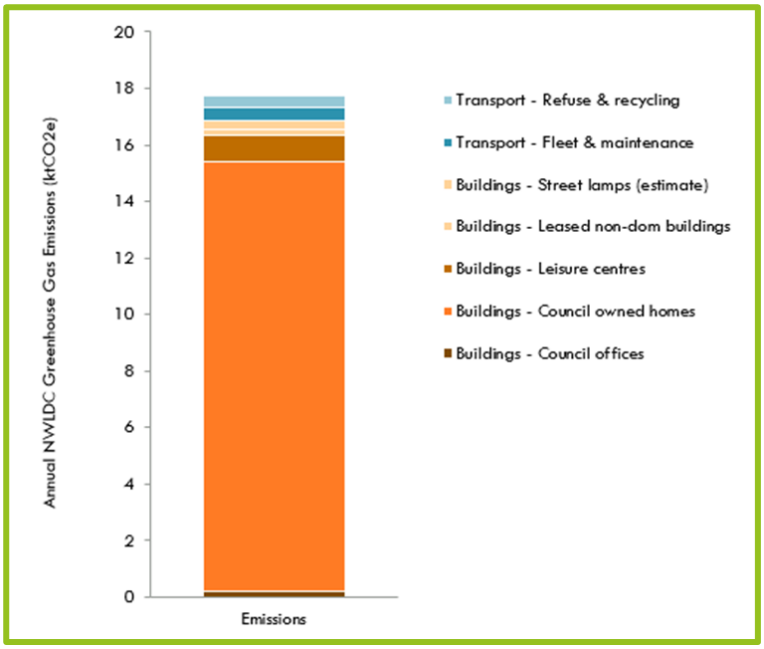


This diagram illustrates the scale of the different emissions in financial year 2023/24.



3.2. Buildings

The Council's zero carbon roadmap clearly identifies the importance of buildings. The chart below reflects the impact of emissions and shows the scale of the impact of housing (Scope 3 emissions: the Council owns the buildings but does not operate them).



Source: Zero Carbon Roadmap, Etude, Baseline year 2016

Buildings are rated on their energy performance and are issued an “energy performance certificate”, or “EPC”. Behind an EPC grading is a “SAP” rating, a “standard assessment procedure”.

EPC calculations consider the amount of energy used by tracing potential sources of energy loss – for example, to get a good rating, the floors, walls and roof should have good insulation so the heat remains within the building.

The SAP methodology is used by government to assess and compare the energy and environmental performance of buildings. The SAP framework was updated in summer 2022 to reflect the updated Building Regulations Part L and incorporated various changes to the methodology including updated CO_{2e} emissions. This will impact the estimated emissions when some buildings are re-assessed. As EPC are valid for ten years, there will be some lag in the data.

As the energy efficiency ratings of the Council’s own property portfolio improves, there will be emissions saving, however, this will vary on the type of works undertaken and the specific building, This will be impacted by how the occupant of the building operates, and the Council only has access to the data for the buildings it occupies.

The Council can, however, report an estimated before/after status on any improvement works, based on the EPC rating of each building,

Further work is required, together with Property Services and Housing to report on the energy efficiency of the Council’s entire building portfolio across both social housing and commercial operation. Both teams are focused on system improvements and quality data to help prioritise activity.

3.3. EV Charging Summary

There are now seven EV charging points installations across the Council’s car parks with Ibstock the most recent installation. Usage has been growing, although since the charging price increase in January 2023, it has flattened. This will continue to be monitored.

- Ashby - North Street car park (four)
- Castle Donington - Clapgun Street car park (four)
- Thringstone - The Green car park (four)
- Whitwick - Vicarage Street car park (four)
- Coalville - Margaret Street car park (four)
- Measham - Peggs Close (four)
- Ibstock - High Street (four)

The data below is a summary from the usage data. The CO_{2e} savings quoted are based on the assumption of standard electricity, not from a renewal source.

Financial Year	No. of Charges	% Change v PY	Sum of kWh Used	% Change v PY	Sum of tCO_{2e} saved
2019-2020	297		5285		2.96
2020-2021	141	-53%	2029	-62%	1.14
2021-2022	1158	721%	16608	718%	9.30
2022-2023	2581	123%	45045	171%	25.23
2023-2024	2558	-1%	37215	-17%	20.84
Grand Total	**6735**		**106182**		**59.47**

3.4. Recycle more

3.4.1. Recycling Rate

The Department for Environment, Food and Rural Affairs (Defra) confirmed the Council's household recycling rate for 2022-23 was 43.0%.

The recycling rate for 2023-2024 and the amount of residual waste collected per household will not be confirmed by Defra until early in 2025. However, referring to internal data held by Waste Services, the recycling rate compared to 2022-23 is predicted to increase to approximately 45.2%. This is largely as a result of higher tonnages of garden waste collected compared to the prior year.

3.4.2. Waste and Recycling Tonnages

In 2023/24, a very similar tonnage of residual, (black bin) household waste was collected to the prior year; dry recycling was down 3.4% but garden waste bounced back with a 19.6% increase, very similar to 2021-22.

Year / Tonnages	Residual Waste	% change	Recycled Waste	% change	Garden Waste	% change	Total	% change
2019-20	22,002		7,307		11,194		40,503	
2020-21	24,985	13.6%	8,129	11.3%	10,099	-9.8%	43,213	6.7%
2021-22	24,256	-2.9%	8,587	5.6%	11,081	9.7%	43,924	1.6%
2022-23	22,335	-7.9%	7,538	-12.2%	9,252	-16.5%	39,126	-10.9%
2023-24	22,254	-0.4%	7,284	-3.4%	11,068	19.6%	40,607	3.8%

3.4.3. Residual Waste Disposal Method

The method of waste disposal has changed moving away from landfill to incineration.

Year	Waste type	Incineration	Landfill	Refuse Derived Fuel/ Treatment *
2020-21	Household residual waste	63.47%	36.43%	0.10%
2021-22	Household residual waste	65.77%	30.12%	4.11%
2022-23	Household residual waste	82.01%	17.99%	0.00%
2023-24	Household residual waste	99.81%	0.19%	0.00%

* Fuel produced from waste including household residual waste, commercial waste or industrial waste used as a fuel in cement kilns, replacing fossil fuels

The carbon impact of disposing of household residual waste at landfill is higher than incineration. Per tonne of household residual waste, landfill disposal has a carbon factor of 451.82 kg CO_{2e}, versus 382.30 kg CO_{2e} when it is incinerated. However, to reduce the emissions associated with the collection and disposal of household residual waste, ultimately less waste needs to go in the black bin, through prevention of the waste, and maximising the opportunities through the recycling of materials, composting of green waste and anaerobic digestion of food waste.

Further information about carbon emissions is available in section 3.4.5.

3.4.4. Food Waste

The weekly food waste trial started in November 2019 to 2000 households and was extended in Q3 2020 to a further 2000 households, providing the service to 4,000 households. The food waste is sent to an anaerobic digestion facility in Atherstone, where it is turned into biogas, which is used to generate electricity and heat. It also produces a bio-fertiliser for use in farming.

The tonnages collected are converted to emissions savings based on a conversion rate provided by the recognised body WRAP (Waste and Resources Action Programme).

Year	Food waste collected (tonnes)	Food waste carbon saving (tCO_{2e})	% change
2019-20*	41.18	30.89	
2020-21**	96.61	72.46	134.6%
2021-22	209.00	156.75	116.3%
2022-23	208.00	156.00	-0.5%
2023-24	205.00	153.75	-1.4%

* Food waste collected between November 2019 and March 2020 only due to Covid-19.
** Food waste resumed in November 2020 due to Covid-19.

Food waste collections are in place throughout all Council depots, Whitwick Business Centre and the Customer Centre, ensuring the Council is leading by example, maximising recycling opportunities throughout the organisation.

The Environment Act 2021 requires local authorities in England to collect food waste from all households by March 2026. Planning for the district wide roll out is underway.

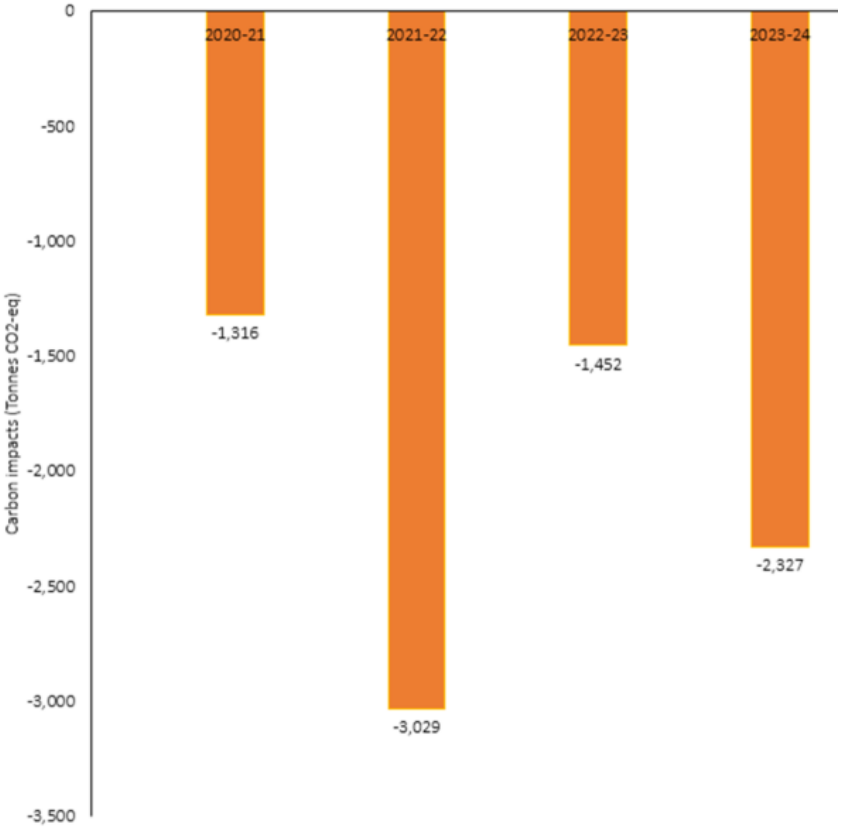
3.4.5. Carbon Calculator and Waste Related Emissions

A carbon calculator has been developed between the Climate Change Programme Manager, Waste Services Development Officer and Frith Resource Management, an environment consultant.

It measures the greenhouse gas and carbon impacts of all waste and recycling materials collected, transported and disposed of by the Council. The data includes all material streams collected from households and commercial premises.

The chart below summarises the carbon impact of collection of waste and recycling materials over the past four years. The data includes all household residual (black bin) waste, garden waste, recycling, food waste, bulky waste (large household items), commercial waste, fly-tipping, street litter and sweepings.

Chart 1 - yearly summary of total carbon emissions savings per year



Comparing the last four years , the recycling, composting and anaerobic digestion of material streams off-sets the impact of residual waste disposal

This trend of direction can be explained due to the following reasons:

- Since January 2021, the Council's waste collection vehicle fleet switched from diesel fuel to Hydrotreated Vegetable Oil (HVO) which produces 90% less carbon emissions than diesel. This largely contributed to the increase in carbon saving from 1,316 tCO_{2e} in 2020-21 to 3,029 tonnes in 2021-22.

- Over the past four years, an increased proportion of household residual waste has been sent for incineration instead of it being landfilled or sent for refuse derived fuel or other treatment; this can be seen in the tables below. In 2023-24, 99% of household residual waste was sent for incineration.

The carbon impact of disposing of household residual waste at landfill is higher than incineration. Per tonne of household residual waste, landfill disposal has a carbon factor of 451.82kg CO_{2e}, versus 382.30kg CO_{2e} when it is incinerated.

To further reduce the carbon emissions associated with the collection and disposal of household residual waste, the focus needs to be on reducing the volume going into the black bin, through the prevention of the waste, maximising the opportunities through the recycling of materials, composting of green waste and anaerobic digestion of food waste.

2021-2022 saw the largest carbon saving which can be explained by:

- 1,829 more tonnes of garden waste were collected in 2021-22 than in 2022-23 due to the extreme temperatures during summer 2022. For every tonne of garden waste composted, there is a carbon saving of 649 kgCO_{2e}. This largely explains why 1,551 tCO_{2e} more was saved in 2021-22 compared to 2022-23.

- In 2021/22, 8,587 tonnes of material was recycled, which was 1,048 more tonnes than in 2022-23 and 1,303 tonnes more than in 2023-24. This is likely linked to the recent increase in the cost of living, with residents potentially buying fewer goods, resulting in less recyclable packaging being placed at the kerbside for collection. In addition, products and packaging manufactured from recycled materials tend to weigh less. For example, recycled glass is lighter than glass manufactured using virgin materials. Furthermore, companies are reducing the amount of packaging used to protect goods in an effort to reduce costs and lessen their environmental impact.

- Finally, household residual waste has decreased year on year since 2020-21, when it was 24,985 tonnes, This reduction of residual waste often occurs during a cost of living crisis as households purchase less goods and waste less, including food.

3.4.6. Future Legislation

Further carbon savings will be possible as the Environment Act 2021 requires local authorities in England to collect food waste from all households by March 2026. Since the introduction of the food waste trial in November 2019 ,initially to 2,000 households, then a further 2,000 households in November 2020, 850 tonnes of food waste has been recycled as it has been sent for anaerobic digestion. This represents a carbon saving of 646 tonnes CO_{2e}.

By 2027, the Environment Act 2021 also requires local authorities in England to collect plastic bags and wrapping and tetra paks (beverage and food waste cartons). A trial of plastic bags and wrapping known as ‘FlexCollect’ began in March 2024 for 6,500 households. To date, 8.3 tonnes has been collected. There are plans to increase the trial to a further 6,000 households in September 2024. Although currently there is no data available regarding the carbon saving of recycling plastic bags and wrapping, it is anticipated it will have a carbon saving, rather than if it was sent for incineration.

The government is also introducing an Extended Producer Responsibility (EPR) scheme from April 2025. This will require packaging manufacturers and producers to pay the full cost of managing packaging once it becomes waste. Payments will be received by collection authorities, such as the Council, to support the efficient and effective management and recycling of household packaging waste. The scheme is designed to encourage producers to use less packaging and use more recyclable materials, reducing the amount of hard to recycle packaging placed on the market.