East Cambridgeshire District Council

Climate and Nature Action Plan and Monitoring Report, June 2025

Contents

1. Highlights Report (June 2025)

Achievements 2024-25

1.1. East Cambridgeshire District Council remains committed to tackling climate change and bringing back nature to East Cambridgeshire. It is pleased to publish this annual report of our activities in the past year. In summary, the highlights from 2024-25 for this 2025 annual report are as follows.

1.2. Helping to ***Bring Back Nature*** to East Cambridgeshire, the Council has:

- Provided over 30 'Pride of Place' grants to community groups. The scheme has resulted in animal boxes, tree planting, green space creation, flower planting and pond rehabilitation projects spread right across the district.
- Published a national first supplementary planning document on Hedgehog Recovery.
- Helped establish two 'habitat banks' in the district, where nature recovery is legally required over at least the next 30 years. The majority of districts in the country have yet to gain one, never mind two, such habitat banks.

1.3. Helping to ***tackle climate change***, the Council has:

- Installed solar panels installed on The Hive, which are forecast to save at least c£18,500 in electricity running costs and generate 91MWh of electricity per annum.
- Enabled ten community buildings to share £150,000 of 'Net Zero Villages' investment in solar panels and battery storage, to reduce emissions and keep their running costs down.
- Moved the majority of our refuse collection vehicles away from diesel to low emission HVO fuel.
- Assisted well over 100 households to have free substantial energy efficiency retrofit measures installed on or in their homes (such as solar panels).
- Over 2/3rds of council staff undertook carbon literacy training.

1.4. Helping the Council, our local residents and our communities ***adapt to a changing climate***, the Council has:

- Reduced its own water consumption by 10% in its main office The Grange.
- Supported a variety of community engagement events, such as earth cafes, repair cafes and an 'Ely Imaginarium'.

1.5. Our latest 'carbon footprint' (carbon emissions) data is for the Council, as an organisation, 1,256 tonnes CO_2e (period 2024-25). This is down 5% compared with our baseline year of 2018-19.

1.6. The main challenge we faced in 2024/25 was resourcing all of the actions we wanted to achieve, not helped by some staff turnover.

1.7. This Monitoring Report provides further details on the matters summarised above.

Top 20 Actions for 2025-26

1.8. For the coming 12 months (June 2025-May 2026), we have set ourselves a **new set of 'Top 20' actions** to help bring back nature to East Cambridgeshire, mitigate climate change and adapt to a changing climate.

1.9. For a summary of the new Top 20 Actions please see our separately published poster entitled 'Our Climate and Nature Top 20 Actions for 2025'

2. Bringing Back Nature to East Cambridgeshire

Our achievements for the period June 2024 to May 2025

Hedgehog Recovery

Action 2 for 2024-25: Further hedgehog recovery support including grants, training for landowners and new planning policy.

2.1. We ran a very successful hedgehog training day on 27 November 2024. Attendees were from across East Cambridgeshire including our own parks and open spaces staff plus others involved in the management of public spaces or private amenity land, including consultants, landscape architects', local gardeners and developers. The nationally renowned Hedgehog author and speaker, Hugh Warwick, hosted the event and participants undertook Hedgehog Street's accredited Hedgehog Ecology and Management for Practitioners (HEMP) course. Following the training course (see photograph below), it also included a two-hour practical session looking at hedgehog opportunities and challenges in and around central Ely.

Figure 1: ECDC Parks and Open Space staff at an accredited Hedgehog training course. Credit: ECDC

2.2. Separately, following a period of consultation, we adopted a new Hedgehog Recovery Supplementary Planning Document on 26 September 2024, thought to be the first of its kind in the country. This provides practical help to both planners and developers, to help ensure all new development is as hedgehog friendly as possible.

2.3. Due to our climate change officer post being vacant for the period Nov 2024-March 2025, we unfortunately were not able to set up a small grants scheme, but will consider that in the coming months if resources permit.

Pride of Place Grants

Action 3 for 2024-25: Extend the successful Pride of Place grant application scheme to the end of October 2024, giving 100% grant support to even more communities for open space and nature-led projects in our district.

2.4. Our Pride of Place Grant scheme has been hugely successful, with 31 community groups benefitting from 100% grant funds to help transform a local area for the benefit of both nature and people over the two-year period. The scheme has resulted in 5 animal boxes, 6 tree planting, 10 green space creation, 14 flower planting and 4 pond rehabilitation projects spread right across the district. The project was also an excellent way to bring communities together to deliver projects in

their local area, including the large turnout for a community hedge planting day in Mepal, as identified in the photograph below.

Figure 2 Mepal residents at a Pride of Place planning day March 2024. credit F Wynn

2.5. A fuller breakdown of the Pride of Place programme, including photographs, are available in a separate report on our website.

Deliver Biodiversity Net Gain

Action 6 for 2024-25: Deliver Biodiversity Net Gain (BNG) via the planning system, including creation of large scale 'habitat banks'

2.6. BNG is fast becoming an established part of the planning system, with all planning applications other than very minor ones now successfully complying with the minimum requirement of a 10% gain for nature.

2.7. We've also worked very hard with farmers to help set up potential 'habitat banks' in our district, which are special zones set aside for nature recovery for at least 30 years. Two are now successfully in place (Oxwillow near Pymoor, and Hope Farm near Dullingham, respectively), with legal mechanisms in place to ensure they are fully established and well managed for nature for decades to come.

2.8. It is particularly pleasing to have worked really hard with such landowners to set up two such habitat banks in our district, and this is tantamount to the considerable efforts of our senior ecologist and the applicable landowners. Most district councils in the country have yet to establish a single habitat bank, and only a tiny number have two or more.

2.9. The benefit of having habitat banks in our district includes:

- Nature recovery derived from built development in our district will stay in our district
- Nature recovery required from development outside our district might be diverted to our district (because the applicable district has no habitat bank themselves)
- Economic benefits, because our local farmers are generating additional income from diversifying their landholdings
- Wider environmental benefits all taking place in our district, such as air quality improvements, water storage, increased biodiversity and carbon capture

2.10. We continue to promote and work with landowners on the potential for further habitat banks in our district.

Figure 3 Home page for Oxwillow habitat bank credit: website https://www.oxwillow.co.uk/

Figure 4 Home page for Hope Farm habitat bank. Credit: https://www.bng-units.co.uk/

Actions outstanding from the period June 2024 to May 2025

2.11. In the last monitoring year of 2024-25, there were a number of nature related actions we set ourselves to achieve that presently have not yet been complete. These are listed below, together with commentary on their progress and our future intentions for each.

Action 1 for 2024-25: A new 'Hedges for Hedgehogs' campaign with free native hedgerow plants given away to local communities

2.12. Due to our climate change officer post being vacant for the period Nov 2024-March 2025 (this period also coinciding with the planting season for new hedges), this project did not proceed. We will consider whether to progress it in a future winter, but have no present plans to do so.

Action 4 for 2024-25: We will work with local residents to create an accessible one-acre (0.5 ha) woodland in Bottisham

2.13. This project remains ongoing, but was delayed due to the legal transfer of land taking longer than expected. The project is hoped to commence on the ground during 2025.

Action 5 for 2024-25: Further nature improvements in our parks and open spaces, including grass cutting and wildflowers.

2.14. Whilst our dedicated open space and parks team spend a considerable amount of time looking after our open spaces for the enjoyment of the public, we were unable to make any meaningful progress in the past 12 months to manage such spaces in a way which further improves them in a more nature friendly way. There is considerable opportunity to do so, with such potential hopefully being realised by the new habitat management plans we are putting in place over 2025 for twenty of our key open spaces. We have never previously had such management plans, therefore, once in place, our parks and open spaces team will have a clear rule book to follow to enable such sites to maintain their primary function of public open spaces, but with opportunities to benefit nature also taken.

Action 7 for 2024-25: Publish long term nature recovery plans via the creation of a Cambridgeshire-wide Local Nature Recovery Strategy.

2.15. This crucial new strategy being prepared by the County Council and the Combined Authority has unfortunately been subject to significant delays at the preparation stage. As a supporting district council, we have spent a considerable amount of time attempting to steer the document to one which benefits nature recovery in East Cambridgeshire as well as the wider county. Hopefully, public consultation will take place in 2025 but this is a matter in the hands of the Combined Authority.

Action 8 for 2024-25: We will deliver a Trees and Woodlands strategy

2.16. Due to our climate change officer post being vacant for the period Nov 2024-March 2025, this project did not proceed. With local government reorganisation now due at pace, it may not be prudent to progress a district specific strategy in the short term, due to the very short shelf life it will have. It is unlikely this strategy will therefore be prepared.

Action 9 for 2024-25: We will create a 'butterfly mound' in one of public parks, constructed and seeded to attract butterflies and pollinators, with the design chosen via a poll.

2.17. Due to our climate change officer post being vacant for the period Nov 2024-March 2025, we did not have the resource to run a poll on options for the design. In addition, we did not have sufficient resource in the open space team to deliver a butterfly mound in the appropriate season (winter or very early spring). We still intend to deliver this project over 2025/26.

Action 10 for 2024-25: Make our Phase 3, Arbour Square, Ely development as nature friendly as possible, including measures for hedgehogs, swifts, native planting and water saving

2.18. Planning permission for Phase 3 has not yet been secured therefore this action has not progressed to date.

3. Reducing our Carbon Emissions

Our achievements for the period June 2024 to May 2025

Use of Hydrotreated Vegetable Oil (HVO) fuel

Action 11: Move substantially all our Refuse Collection Vehicles to Hydrotreated Vegetable Oil (HVO) fuel, which has at least an 80% reduction in carbon emissions compared with regular diesel.

3.1. From April 2024, 16 (out of 18) refuse and recycling collection vehicles were fuelled with HVO fuel. The council also installed a tank onsite at the depot to allow for more efficient refuelling. The remaining 2 collection vehicles (which are not able to run on HVO) will be replaced during the next financial year as will the new street cleansing fleet which will also then be fuelled by HVO.

3.2. We will process the data arising from the new fuel in the coming year, to identify precisely how much of an emission savings has arisen compared with traditional diesel fuel.

Figure 5 One of our waste collection vehicles now being powered by HVO fuel. Credit: ECDC

Install Solar Panels on The Hive

Action 12: Install solar panels on the roof of the Hive swimming pool, aiming to save at least 5 tonnes of CO_2e emissions and save over £10,000 in annual running costs.

3.3. Following a national competitive process, we successfully procured the installation of solar panels across a large part of The Hive leisure centre in Ely. The work was completed and operational by May 2025. Estimated year one electricity savings are forecast to be £18,490, and is expected to offset 18% of the leisure centre's electricity consumption, saving c19 tonnes CO_2e per year. We also anticipate the investment will have a 'payback' period of around 4-5 years, with the panels still generating electricity for 25 or more years.

Figure 6: Solar panels installed on The Hive Leisure Centre. Credit: ECDC

Carbon Literacy training for staff

Action 14: Continue to deliver Carbon Literacy training for all staff at the council.

3.4. Well over 2/3rds of ECDC staff (134) have now completed the carbon literacy course, with over 90 having gone on and successfully completed their evidence forms and become officially carbon literate. We've therefore hit our original target of achieving half of our staff to be fully carbon literate certified, which is a huge achievement. The feedback has been very positive, with one participant saying "*I thought the training was brilliant. Very scary, hard hitting, and impactful. Since receiving it, I am so much more mindful of my actions and what I can do to make a difference*."

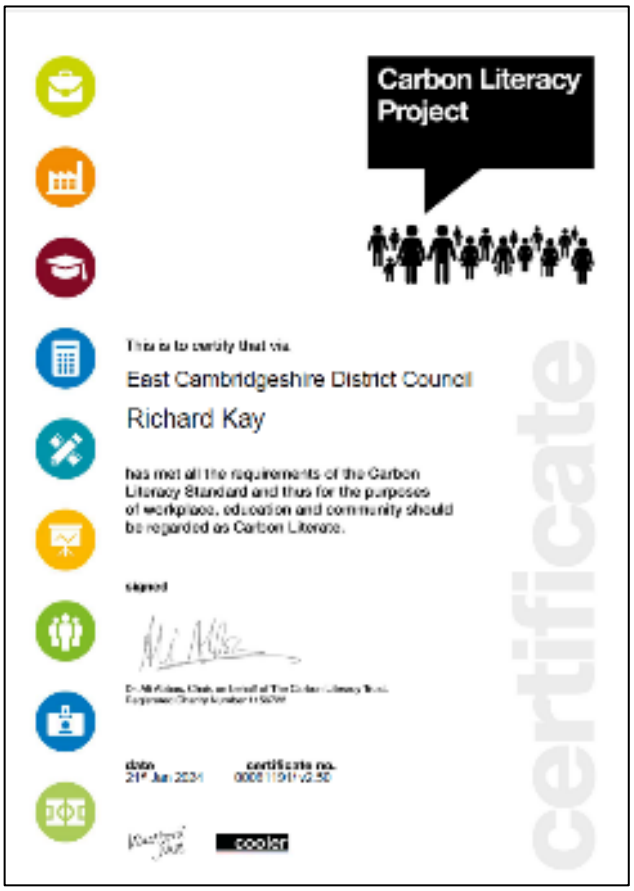


Figure 7 Example photograph of a carbon literacy certificate. Credit: ECDC

Supporting residents to live in energy efficient and warm homes

Action 15: Continue to provide support and advice to residents who want to undertake energy efficiency improvements in their homes. This includes £1.5m of Home Upgrade Grant 2 (HUG2) funding for spend across East Cambridgeshire.

3.5. Over the two year period 2023-25, we have administered and supported residents with over £1.7m in HUG2 energy efficiency investment. That investment has benefitted close to 100 households in our district, with measures such as solar panels and insulation, dramatically reducing the running costs of those homes as well as making them warmer and healthier.

3.6. In addition, we supported a further 32 households gain 'eco-flex' funding, again for measures such as solar panels.

3.7. We have also provided advice to a wide range of other residents on what energy efficiency measures could be appropriate for their homes, including those households that were not eligible for grant funding but were in a fortunate position to pay for measures themselves.

Figure 8: A contractor installing solar panels on the home of an East Cambridgeshire resident under the Home Upgrade Grant scheme

Actions outstanding from the period June 2024 to May 2025

3.8. In the last monitoring year of 2024-25, there were a number of climate related actions we set ourselves to achieve that presently have not yet been complete. These are listed below, together with commentary on their progress and our future intentions for each.

Action 13: We will consider options for including environmental considerations when revising the council's Contract Procedure Rules.

3.9. We have yet to update our Contract Procedure Rules to take environmental considerations into account for all goods and services we procure.

3.10. As a temporary measure, the council has added the following to the internal staff procurement help guide:

> *4.9 Climate Change and Sustainability*
>
> *4.9.1 In 2019 the Council declared a Climate Emergency and there is a target to reduce our direct carbon emissions by 80% by 2030/31. You should therefore consider how you can build climate change into your procurement.*

3.11. We have no present plans to more fundamentally update our contract procedural rules to embed environmental considerations within them.

4. Adapting to a Changing Climate

Our achievements for the period June 2024 to May 2025

Reduce water use in our own office buildings

Action 17: Reduce water use in our own office buildings, aiming for a 10% reduction by June 2025

4.1. Via simple messaging and checking and addressing minor leakages quicker, we managed to reduce our water use in The Grange over the past 12 months, from 1,151m^3 (203/24) to 976m^3 (2024/25), a reduction of 15%. Or, to visualise it easier, that's enough water saved last year to fill approximately six 20ft long shipping containers.

4.2. The reduced amount of water used also saved the council approximately £600 in water bills last year.

4.3. We think there are significant opportunities to further reduce water use in The Grange in the coming year, so are proposing to target a further 10% reduction this coming year.

Figure 9: A typical bathroom facility at The Grange, with potential for water efficiency measures. Credit: ECDC

Let's Adapt Together

Action 19: Let's Adapt Together. We will arrange community events and boost our engagement work as we foster a coming together to tackle the issues of climate change, nature recovery and adapting to a changing climate. £5,000 set aside for local community engagement activities.

4.4. Rather than directly ourselves, we have assisted East Cambs Climate Action Network, including financially, to enable them to run or support events, including an 'Imaginarium' at the Ely Apple Festival; regular Earth Café sessions; establishment of Repair Cafes; and community-based energy advice days.

4.5. Whilst it is hard to measure the impact of such events, we think engagement work as a whole, and through as many means as possible, will have a collective positive impact.

Figure 10: Poster used to advertise the Ely Imaginarium event, part sponsored by ECDC. Credit: EastCambsCAN press release

Actions outstanding from the period June 2024 to May 2025

4.6. In the last monitoring year of 2024-25, there were a number of adapting to climate change related actions we set ourselves to achieve that presently have not yet been complete. These are listed below, together with commentary on their progress and our future intentions for each.

Action 16: 'Water, water everywhere (then) not a drop to drink'; we will commence a water resilience campaign to help all of us be prepared to the dual threat of 'water, water everywhere in winter, but then not a drop to drink in summer'

4.7. Due to our climate change officer post being vacant for the period Nov 2024-March 2025, this project did not proceed. However, it is recognised the fundamental importance of this action, and water reduction is proposed to be a fundamental element of the 2025/26 proposed actions.

Action 18: Deadly Top Twenty! A public campaign to spot the top 20 most unwanted, damaging and deadly invasive species in the district, and informing residents what they could do to help.

4.8. Due to our climate change officer post being vacant for the period Nov 2024-March 2025, and the significant demands on implementing Biodiversity Net Gain in the planning system, this project has not proceeded as planned. It is still considered a valid project but is subject to resources being available.

Action 20: We will engage with businesses and investors to help them thrive on our journey to a greener, cleaner East Cambridgeshire.

4.9. With both the Climate Change officer and Economic Development officer post vacant for large parts of the past year, this action was limited to a workshop run by an outside consultant focussed on Landcaster Way enterprise zone. The daylong workshop brought together a collection of the business from that area, and looked at ways each business could set off on a journey of transition to a greener future.

5. Carbon Footprint Reporting Data

Carbon Footprint Calculations

5.1. A 'carbon footprint' is a measure of the greenhouse gases, such as carbon dioxide, emitted into the atmosphere from a specified area (such as Cambridgeshire) or by an organisation (such as East Cambridgeshire District Council) or by an individual. A carbon footprint calculation can provide pointers to where action could be best taken to reduce your impact on the environment.

5.2. Whilst not an exact science, you can have a go at calculating your own (or your family's) carbon footprint using an online tool such as: https://footprint.wwf.org.uk/.

5.3. In the next three sections we report on the carbon footprints of:

- **Cambridgeshire, as a geographical area**
- **East Cambridgeshire, as a geographical area**
- **East Cambridgeshire District Council, as an organisation**

5.4. For the first two sections, the data is compiled by central government, and usually published with at least a two-year lag. Thus, the latest data available at the time of writing was released in June 2024, for the period to 2022. The full dataset for all local authority areas is available at the following (including any new data published after May 2024)

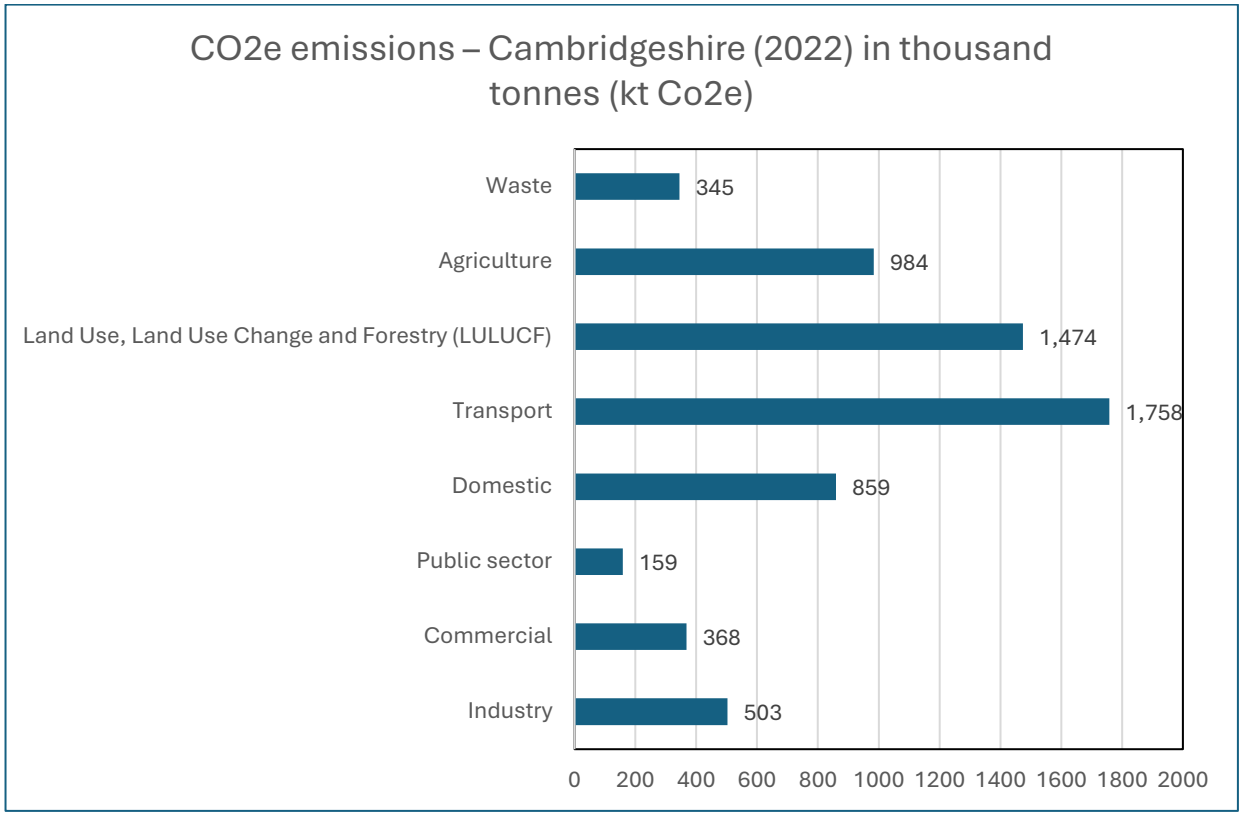
https://www.gov.uk/government/collections/uk-local-authority-and-regional-greenhouse-gas-emissions-national-statistics

Cambridgeshire Carbon Footprint (2022 data)

5.5. This section reports on the 'carbon footprint' of Cambridgeshire as a geographical area.

5.6. The latest government data shows the carbon footprint for Cambridgeshire was around 6.45million tonnes CO_2e in 2022 (out of 376MtCO_2e for the UK as a whole). Whilst still an enormous amount, the Cambridgeshire total is on a steady falling trajectory, down from 8.94 MtCO_2e in 2005. The 2022 figure identifies a 2.9% decrease in emissions from the year before (2021).

5.7. The following table splits Cambridgeshire's emissions of 6.45million tonnes CO_2e (2022) into various main sectors:



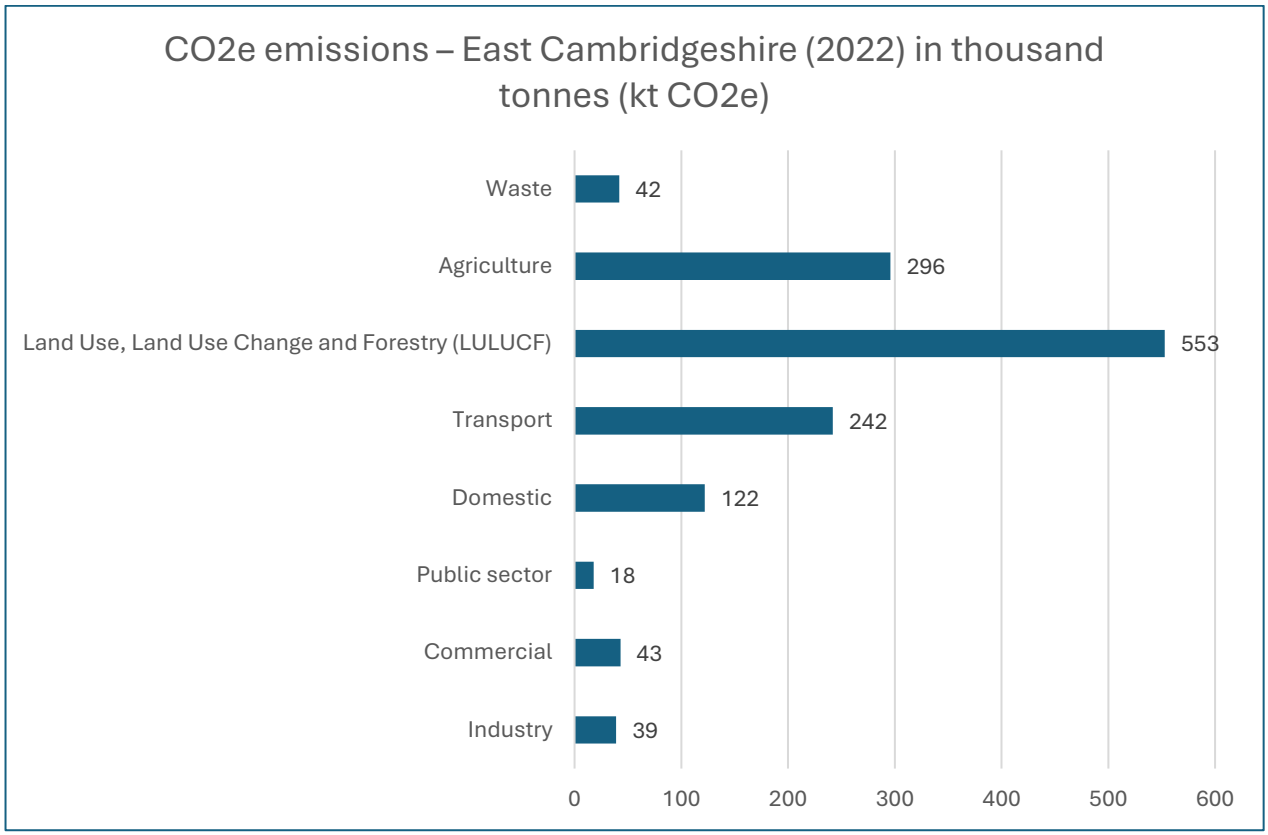
5.8. Cambridgeshire's largest source of emissions therefore came from transport (27%), followed closely by land use, land use change & forestry (LULUCF) (23%). In fact, Cambridgeshire is the worst performing county in the UK by far under the LULUCF category, emitting twice as much as the next worst county (Norfolk). Indeed, many counties have a minus LULUCF score, meaning their land absorbs more carbon (such as through trees growing) than it emits, which helps them offset some of their emissions from other sectors.

5.9. The reason for Cambridgeshire's very high LULUCF emissions is simple: high intensive farming, the subsequent drying of our peat lands, combined with very low levels of tree cover. To reduce our LULUCF emissions will require significant changes in the way we manage and farm our land, and it is unlikely we could ever eliminate emissions arising from this source in Cambridgeshire.

East Cambridgeshire (as a district) Carbon Footprint (2022 data)

5.10. This section reports on the 'carbon footprint' of **East Cambridgeshire** as a geographical area.

5.11. The latest government data shows the carbon footprint for East Cambridgeshire was around 1.36million tonnes CO_2e in 2022 (out of 376MtCO_2e for the UK as a whole). The following table splits East Cambridgeshire's emissions of 1.36 million tonnes CO_2e (2022) into various main sectors:



5.12. The East Cambridgeshire total is on a very steady falling trajectory, down from 1.64 MtCO_2e in 2005 to 1.36 MtCO_2e in 2022.

5.13. The 2022 figure identifies a 1% decrease in emissions from the year before (2021).

5.14. Like Cambridgeshire, LULUCF once again dominates our district's emissions. Excluding LULUCF, our total emissions (i.e. from all other sectors combined) are calculated as being 0.80 MtCO_2e.

5.15. To help visualise what 1.36 MtCO2e looks like, that amount of CO_2e emissions would fill somewhere in the region of ***1,000 hot air balloons every day***, and for ***just East Cambridgeshire***.

East Cambridgeshire District Council Carbon Footprint (2022-23 data)

5.16. The previous sections, looking at Cambridgeshire as a whole and East Cambridgeshire as a whole, used data collected and published by other parties. In this section, we look just at East Cambridgeshire District Council, as an organisation.

5.17. To work out the carbon footprint of an individual company or organisation, like East Cambridgeshire District Council, a lot more data collection and analysis is required to be done by that organisation to determine a robust carbon footprint. For an explanation of the method we have adopted for calculating our carbon footprint, please refer to Appendix 1.

The Council's Carbon Footprint 2023-24 – a summary

5.18. The baseline carbon footprint (using data for the financial year 1 April 2018 to 31 March 2019), as set out in detail in our Environment Plan 2020, resulted in a **baseline (2018-19) carbon footprint for the Council being established as 1,317 tonnes of CO_2e**.

5.19. Each year since, the Council has reported an update on its annual emissions. Below is the sixth set of such data, for the financial year 2023-24.

5.20. It is estimated that the measurable carbon footprint for the Council in 2023-24 (i.e. to April 2024) as being **1,256 tonnes of CO_2e**. Thus, in headline terms, the Council's calculated carbon footprint has seen **an overall 5% decrease** in its gross emissions in the six-year period starting in 2018-19 and ending in 2023-24.

5.21. The change in emissions from baseline to present year is summarised in the table below:

	18/19	19/20	20/21	21/22	22/23	23/24
Scope 1: Direct emissions	839	871	892	843	886	896
Scope 2: Indirect emissions	164	120	95	95	87	81
Scope 3: Other Indirect emissions	314	325	254	266	308	279
Gross emissions total	**1,317**	**1,315**	**1,241**	**1,204**	**1,282**	**1,256**

5.22. The following figure illustrates the gross emissions, since baseline year reporting, and illustrates the limited reduction in our carbon footprint over the past 6 years:

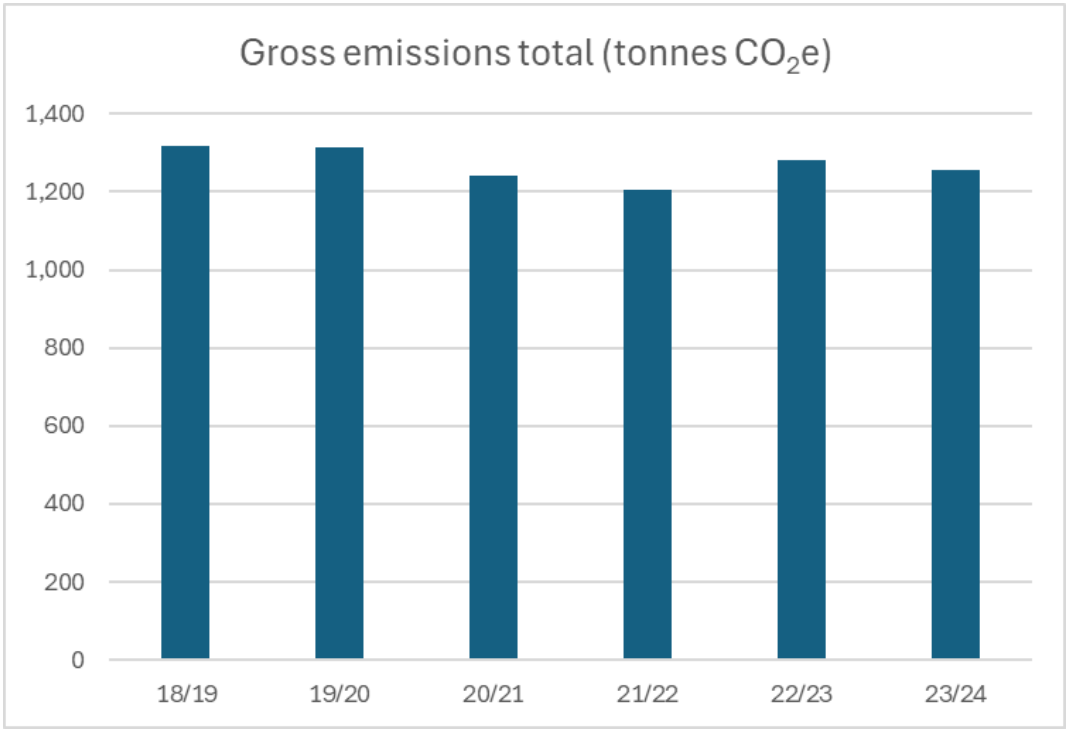


Figure 11 ECDC's reported emissions year on year from our 2018/19 baseline year

The Council's Carbon Footprint 2023-24 – further detail

5.23. A detailed breakdown of the source of the Council's calculated emissions in 2023-24 is set out below (note: 'well-to-tank' is listed as a separate row but is a direct consequence of fuel used by the Council, and therefore primarily arises from the fuel consumed by its fleet vehicles).

Scope 1 (tCO_2e)	**18/19**	**19/20**	**20/21**	**21/22**	**22/23**	**23/24**
Gas Consumption	63.7	71.0	81.6	74.6	68.5	73.4
Heating Oil	-	-	17.8	18.4	17.7	3.8
Refrigerant gases	9.7	-	-	-	6.7	2.9
Fleet Vehicles	765.4	800.1	792.5	750.2	793.0	815.8
Scope 1 Total	**838.8**	**871.1**	**891.9**	**843.2**	**885.8**	**895.9**

Scope 2 (tCO_2e)	**18/19**	**19/20**	**20/21**	**21/22**	**22/23**	**23/24**
Electricity	152.5	118.3	86.5	72.5	81.6	74.6
Street Lighting	12.0	1.4	8.7	8.7	5.7	6.4
Scope 2 Total	**164.5**	**119.7**	**95.2**	**81.2**	**87.2**	**80.9**

Scope 3 (tCO_2e)	**18/19**	**19/20**	**20/21**	**21/22**	**22/23**	**23/24**
Water and sewerage	7.1	7.5	8.1	5.9	6.5	3.5
Waste generated in operations	0.5	0.6	0.6	0.6	0.4	0.4
Business travel	81.9	84.7	24.0	41.8	17.0	20.4
Purchased goods and services					65.8	29.8
Transmission & Distribution	14.0	10.2	10.2	7.0	8.0	7.0
Well-To-Tank	210.0	221.7	210.7	209.6	210.7	217.9
Scope 3 Total	**313.5**	**324.7**	**253.5**	**265.0**	**308.4**	**278.9**

Tonnes CO_2e	18/19	19/20	20/21	21/22	22/23	23/24
Gross emissions	**1,316.9**	**1,315.5**	**1,240.7**	**1,189.3**	**1,281.5**	**1,255.8**

5.24. Emission calculations are challenging, and the results presented above should be read with some caution. Please see Appendix 1 for details on our method and limitations. Despite these acknowledged limitations, we can still draw some useful conclusions from the data we have collected.

5.25. For 2023-24, by far the largest single contributing area continues to be the Council's **'fleet vehicles',** such as the vehicles it uses for waste collection, maintaining our parks and open spaces, general maintenance of our properties and land, and any lease vehicles. This is especially so once 'well-to-tank' is factored in. In total, such vehicles account for over **three-quarters of the council's reported emissions**. Such a figure also excludes any scope 3 emissions arising from the manufacturing and distribution of such vehicles (known as 'embedded carbon'), so the true full-life emissions arising from our fleet vehicles is likely to be an even greater share of the Council's emissions.

5.26. Compared with our fleet vehicles, all other sources of emissions are relatively low.

5.27. It should be remembered that, for 2023/24 we had not transferred to HVO fuel so we are anticipating a considerable fall in emissions from our fleet vehicles once the data for 2024/25 is available.

5.28. Very few of our emissions appear to have a significant trend down or up, other than electricity use, which is significantly down from the 2018-19 baseline. With the national grid becoming increasingly decarbonised, emissions arising from electricity should persistently decrease, even if an organisation does nothing directly to reduce its own electricity use.

5.29. Allowing for the possible over and under reporting of some items, it is probably fair to say that the ‘carbon footprint’ of the Council since the baseline year of 2018-19 has remained stable or perhaps a very slight downward trend.

6. Renewable Energy in East Cambridgeshire

How much renewable energy do we produce in East Cambridgeshire?

6.1. Whilst East Cambridgeshire as a district has one of the highest rates of per capita emissions in the UK, on the flip side (and not reflected in the emissions statistics) we are, as a district, a relatively high producer of renewable energy. According to the latest BEIS data published in September 2023 (Source of data: https://www.gov.uk/government/statistics/regional-renewable-statistics), East Cambridgeshire **generated** 437,577 MWh of renewable energy in 2022 (-14% compared with 2022) as follows:

Type of Renewable Energy	**MWh generated in 2023**
Photovoltaics (PV) solar	129,979
Wind	216
Anaerobic Digestion	98,184
Landfill Gas	0
Plant Biomass (eg straw burning plant)	209,199
All other possible sources (eg hydro)	0
Total	**437,577**

Please note that the table above identifies a zero contribution from Landfill Gas. Landfill Gas is excluded from the BEIS data because according to BEIS "there was some generation [of Landfill Gas in East Cambridgeshire] but it has been suppressed to prevent the output of individual plants being revealed" i.e. if the data was released, it would be commercially sensitive. Nevertheless, using historical data we have, the figure is likely to be less than 5,000MWh and would consequently be less than a 1% addition to the total district renewable energy production.

6.2. All four sources identified in the above table were down on their respective totals for 2022, which is disappointing. It is not known why this was the case, for any of the sectors.

6.3. On a per household basis, it means an average of around 11MWh of renewable energy was produced per household in East Cambridgeshire in 2022. On the basis that a typical medium household (2-3 bedroom house; 2 to 3 people) uses around 4MWh per year of electricity per year (though this of course varies considerably from home to home, and assumes electricity is not used for heating), the amount of renewable energy generated in the district would power nearly three times the number of homes we have. Of course, this statistic excludes other major electricity users in the district, such as businesses and public buildings. Nevertheless, the district is a significant generator of renewable energy.

6.4. Indeed, **more renewable energy is produced in East Cambridgeshire than any other district in Cambridgeshire.**

6.5. That said, the use of electricity in the district of East Cambridgeshire only contributes a small fraction (approx. 6% in 2021) towards our total CO_2 emissions. Thus, whilst having a high level of renewable energy produced in the district is, in principle, a good thing, even if we generated enough electricity to power the electricity currently used in every home, business and other building in the district, it would only reduce our district wide carbon footprint by around 6%.

6.6. What we need to do is reduce our other c94% of emissions (from petrol, diesel, oil and the way we manage our land) and switch more and more of our power use towards renewable-generated electricity.

Appendix 1 – Carbon Footprint Calculations Method

Introduction

In section 5, we set out the headline emissions or 'carbon footprint' of East Cambridgeshire District Council, as an organisation. In this appendix, we set out further details on the method employed and the assumptions used, together with acknowledgment of the limitations in the method.

Calculating an organisation's carbon footprint is very challenging, and reported data each year should be read with some caution. What is reported in this document is given in good faith and to the best of the author's ability, but it has to be acknowledged that there are considerable limitations and uncertainties with calculating and reporting such data.

For example, some data is more easily collected and converted to emissions than others. Electricity and gas use is relatively straight forward, because the data is available on the statements (bills) received from suppliers; whereas emissions arising from refrigeration gases or purchased goods are much more difficult to determine.

Emission calculations rely on the data being collected and available in a useable form. It is therefore prone to under- or over-reporting if the data collected is not fully robust. This is particularly the case at the Council for the following items:

- 'Heating Oil' was missed form the data collection in the first two years, as reporting officers were unaware we used any heating oil (it was used away from our main office buildings). Once known, the data was requested, and is now reported. Hence, we 'under reported' our heating oil emissions in the first two years.
- 'Business Travel' appears to have been over-reported in some early years, though we are still uncertain on this and need to investigate further. The issue appears to be that the data provided by the finance team on 'business travel' may, for some years and for some journeys, been provided as two rows of data for one journey, with one row being the journey and the second row being the 'VAT' refund being claimed by the Council. However, as this was not immediately clear in the spreadsheets provided, both rows appear to have been used in some years/journeys as if they were two separate journeys, and the emissions arising therefore 'double counted'. Consequently, it is highly likely that 'business travel' has been over-reported in some years. Nevertheless, using alternative data as a proxy (namely, the amount, in £, claimed in expenses by staff for business miles), this has persistently shown a steep declining trajectory in total business miles claimed, even allowing for covid restrictions, therefore we are confident the emissions arising from business travel is significantly less than the baseline year of 2018-19.
- 'Purchased goods and services' we know is significantly under-reported. For the first four years we did not account for any such emissions arising. For this year, for the first time, we are reporting on a small element of those purchases, namely paper. However, the true emissions arising from all the other goods and services we buy is unknown, yet likely to be a very significant amount.

Over time, the Council is committed to making its carbon footprint calculations as comprehensive and robust as possible.

Method

The starting point for carbon management is to accurately establish the emissions baseline. The scope of the baseline includes the required types and sources of emissions over a defined timescale. The baseline is a fixed point against which a reduction target can be set and future performance monitored. Our baseline was set as emissions arising in 2018/19.

To calculate CO_2e emissions arising, it is necessary to convert the 'raw' data (such as kWh of electricity used) into CO_2e emissions. This process is relatively straightforward, using what are known as 'conversion factors'. The carbon conversion factors used for this Environment Plan are the UK Government published carbon conversion factors for 2022 available at https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022 .

The Council is reporting on emissions within its operational control boundary, following the Greenhouse Gas (GHG) Protocol reporting standards available at https://ghgprotocol.org/corporate-standard.

'In Scope'

Defining the organisational boundary involves establishing which activities and functions are counted (or 'in scope') for the purpose of determining the Council's overall emissions, and by default what activities and functions are not counted ('out of scope'). This stage of the process involves reviewing the Council's operations to determine activities that give rise to carbon emissions.

Emissions, and their associated activities, are reported across three different scopes as follows:

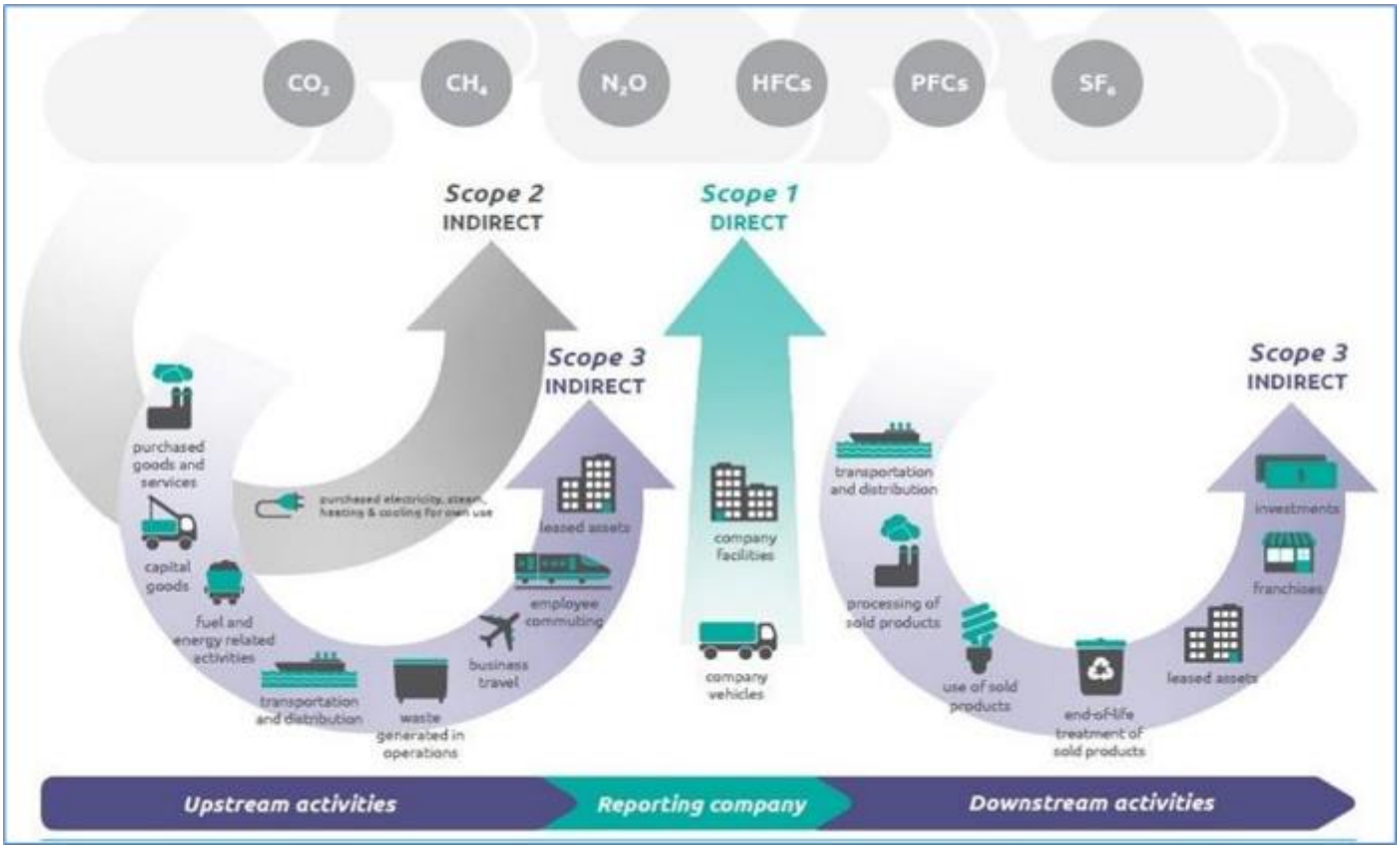
Scope 1 Direct emissions from Council controlled or owned sources

Scope 2 Indirect emissions from the generation of purchased energy used by Council

Scope 3 Indirect emissions associated with the value chain of the Council, both upstream into the Council and downstream out of the Council

Scope 1 and 2 emissions are generally considered to be areas that an organisation has a high degree of control over and can therefore reduce the resultant emissions significantly, if not completely. Scope 3 are considered to be indirect emissions that an organisation cannot directly control and therefore the ability to reduce emissions is far more challenging.

An overview of what falls in different scopes is set out in the diagram below (source page 5 of https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf)



An ongoing review process has determined that, for East Cambridgeshire District Council, it is appropriate to include the following sources ('in-scope') at the present time:

Scope	Activities typical to an office-based organisation	Identified Council emission sources
1	**Stationary** Production of electricity, heat or steam	• Gas used in Council Offices e.g. The Grange • Gas used in buildings operated by the Council e.g. E-Space North

1	**Mobile** Transportation of raw materials / waste	• Travel in cars, vans and heavy goods vehicles operated by the Council
1	**Fugitive** Hydrofluorocarbons (HFC) emissions during use of refrigeration and air-conditioning equipment	• Air conditioning used in Council Offices e.g. The Grange
2	**Stationary** Consumption of purchased electricity, heat or steam	• Electricity used in Council Offices e.g. The Grange, Portley Hill Depot • Electricity used in Council owned street and car park lighting which also includes road signs and illuminated bollards • Electricity used in business facilities operated by the Council e.g. E-space North, E-space South • Electricity used in public facilities operated by the Council e.g. Ely Market Square, Jubilee Gardens
3	**Stationary & Process** Production emissions from purchased materials	• Purchase materials (paper) • All other purchased materials – ***Excluded (see below)***
3	**Mobile** Transportation of raw materials / products / waste, employee business travel, employee commuting	• Staff business travel and accommodation • Employee commuting – ***Excluded (see below)*** • Supply and treatment of water used in Council Offices e.g. The Grange • Supply and treatment of water used in public facilities e.g. Public toilets • 'Well to tank' (this being emissions arising from the production, transportation, transformation and distribution of fuel before it reaches the vehicle that actually uses the fuel)

'Out of Scope'

In addition to the sources detailed above, there are other emission causing activities that the Council holds insufficient detail to accurately measure. Such emissions are therefore **excluded (or 'out of scope')** from the carbon footprint we report.

Such activities are listed below (taken from and defined in the GHG Protocol as 'scope 3' emissions) and are as follows:

Category 1	Purchased goods and services
Category 2	Capital goods
Category 7	Employee commuting
Category 8	Upstream leased assets
Category 9	Downstream transportation and distribution
Category 13	Downstream leased assets
Category 15	Investments

It is not unusual for an organisation to declare certain activities to be categorised as 'out of scope'. That's not because the organisation wants to exclude or otherwise 'hide' such emissions, but it is a pragmatic acceptance that it is too difficult, with resources available to that organisation, to calculate such emissions.

However, over time, the Council intends to make as many of these areas as possible 'in scope', therefore taking even greater responsibility for emissions arising, even where direct control is not present.

Of purchased materials, for example, we have, from reporting year 2022/23, introduced purchased paper into our calculations as being 'in scope', due to reliable data for the carbon impact of paper production and consumption becoming available. This has been calculated predominantly through a spend-based approach, which is a calculation method that estimates emissions by collecting data on the economic value of goods and services purchased and multiplying it by relevant secondary (e.g., industry average) emission factors (e.g., average emissions per monetary value of goods).

Employee commuting may be another early activity we could attempt to quantify scope 3 emissions arising.

Data Collection

The energy data used to calculate the carbon footprint is gathered from different sources, for example invoices received by the Council, annual energy statements from utility providers and property services. Work continues to ensure that this data is robust and systems are in place to ensure ongoing timely and accurate collection of such data. The table below provides more details:

Emissions Source Type	Data Source	Data Quality / Estimation techniques
Gas consumption	Energy invoices from different suppliers, meter readings	Where estimations have been used records are held with source data. Methods include: Annualising consumption or average data calculated using bookended data
Heating oil	Energy invoices from different suppliers	Annualising consumption where required
Refrigerants	Service invoices for air conditioning units	Annualising consumption where required
Fleet vehicles	Fuel purchased and vehicle log books	Annualising consumption where required
Electricity	Energy invoices from different suppliers, meter readings	Where estimations have been used records are held with source data. Methods include: Annualising consumption or average data calculated using bookended periods
Water supply & disposal	Energy invoices from different suppliers	Annualising consumption where required
Waste	Waste collection reports	Annualising consumption where required
Staff business travel	Staff mileage claims, fuel purchased and vehicle log books.	Annualising consumption where required
Hotel Stays	Staff claim forms	N/A

The carbon footprint of East Cambridgeshire District Council (as an organisation) has been calculated in line with the UK Government's Environmental Reporting Guidelines for Voluntary Greenhouse Gas Reporting, which are internationally-recognised standards from the World Resources Institute and World Business Council for Sustainable Development: the GHG Protocol Corporate Accounting and Reporting Standard, and the GHG Protocol Scope 3 standard.

Market-based and location-based reporting

As set out in the tables in section 5, around 7% of the Council's CO2e emission come from 'scope 2' activities. In simple terms, in our case, these are emissions arising from the electricity the Council uses, mostly in its offices. When calculating the Council's headline carbon footprint, we are reporting these scope 2 emissions on a *location-based method* basis, which means those emissions are calculated using the average emissions intensity of the national grid. We think this is the fairest and most honest way of reporting our true emissions.

Indeed, the UK Government (in its 2019 'Environmental Reporting Guidelines', including Streamlined Energy and Carbon Reporting requirements) make it clear that, whilst not compulsory, "*organisations are*

encouraged to use location-based grid average emission factors to report the emissions from electricity, including those consumed from the grid."

However, an alternative way of reporting our electricity activities is on a *market-based method* basis. Such a method takes account of the contractual basis of where we buy electricity from. The Council's electricity tariffs are almost entirely on a 100% renewable energy contract basis (a few of our isolated street lighting contracts are not, for example), and therefore under the *market-based* method, our scope 2 emissions would be almost eliminated entirely. This would reduce our total emissions (and our carbon footprint) by around 6%.

Some Councils and other organisations that are on 100% renewable energy tariffs are choosing to use this *market-based method* to report their emissions, and consequently are claiming a lower carbon footprint than they would do so if they reported under the *location-based method*. East Cambridgeshire District Council has chosen not to do so, for one simple reason. By reporting on a *market-based method*, that organisation does not actually reduce the net emissions of itself or the country as a whole; it simply means another organisation uses a greater share of 'dirtier' electricity than otherwise would be the case, because the organisation using the *market-based method* is in effect making the rest of the national grid, which is shared with everyone else, more carbon intensive. In fact, if an organisation which is on a 100% renewable energy tariff reports only on a *market-based method* basis, there is no incentive for that organisation to reduce its electricity use at all, because it would already be set at 0 tonnes CO_2e emissions.

Again, government gives advice in the aforementioned guidelines, as follows:

"*Where organisations have entered into contractual arrangements for renewable electricity and wish to reflect a reduced emission figure based on its purchase, this can be presented in the relevant report using a "market-based" reporting approach. It is recommended that this is presented alongside the "location-based" grid-average figures*."

Put another way, *market-based* reporting alone is arguably a misleading way of trying to claim a lower carbon footprint than would otherwise be the case under the *location-based* method. If *market-based* reporting is to be reported at all, it should, according to government, be alongside *location-based* reporting. We have reported it only as *location-based* reporting.

Overall, whilst it is important that East Cambridgeshire District Council does operate a renewable energy tariff for its electricity supply, because that will generate investment in renewables across the country, the Council is not headlining its carbon footprint calculations on that basis. Instead, it prefers, in line with government guidance, to headline its reporting of emissions using the *location-based reporting method*. However, the above commentary helps explain how we present our data in the most transparent and accurate way possible.