

West Devon Borough Council Greenhouse Gas Report 2021-2023

West Devon Borough Council

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**West Devon
Borough
Council**

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1. Executive Summary

This report details the emissions for West Devon Borough between 1st April 2021 and 31st March 2023. The reporting years are 2021/22 and 2022/2023. The report also contains information for preceding years 2018/19 and 2020/21.

Overall emissions for the authority have increased from 2316 tCO₂e in 21/22 to 2439 tCO₂e in 22/23. This has been due to increased spending (Scope 3 emissions) and increased activity following COVID-19. Whilst these might be considered as a one off, it is still necessary to include these areas of the spend within an organisations carbon footprint. In addition, 21/22 featured partial COVID-19 lockdowns which suppressed activity across the organisation resulting in lower emissions for energy from our Leisure Centres (Scope 3 emissions) in that year.

Scope 1 emissions related to gas usage has fallen between 21/22 and 22/23 due to reduced usage at Kilworthy Park. Scope 2 emissions have also fallen at Kilworthy Park, partly due to small decreases in electricity use as well as reductions in overall transmission and distribution emissions across the country, as the grid decarbonises, so do our energy emissions.

Overall, scope 3 emissions have risen due to increase in spending and activity across the Council, these parts of our footprint are also areas we have least control over, short of spending less and doing less. Elsewhere in scope 3, there has been a rise of 9 tCO₂e due to new housing stock being brought into Council ownership.

Scope 1 and 2 emissions, the areas we have more direct control and influence, has broadly stayed the same with small decreases resulting from reduced energy consumption and reductions in grid emissions.

Looking further back to 2020/21 and 2021/22 emissions were broadly similar between those years, 2020 being less due to longer lockdowns. 2018/2019 emissions were higher than 2022/23 however there are some identified issues with this footprint year which are explained in section 6 of this report.

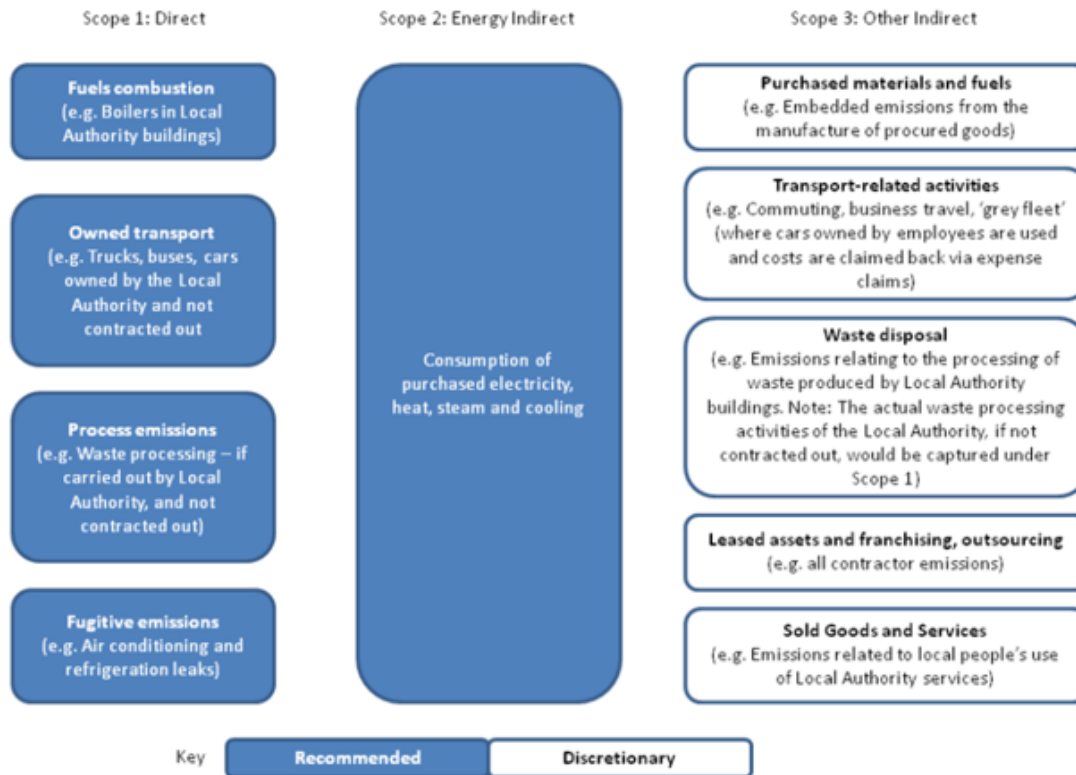
For future years, we expect increases in EV (Electric Vehicles) use across the fleet which will reduce fuel related emissions and the installation of solar PV on our leisure centres will reduce scope 3 emissions in the 25/26 reporting year. Furthermore, as the council moves to own housing, the emissions of these buildings will also need to be included in scope 3, leading to increase there unless we can decarbonise these assets.

2. Introduction

West Devon Borough (WDBC) declared a climate change and biodiversity emergency in July 2019 and committed the council to reduce its organisational carbon emissions to net-zero by 2030.

The definition of “net zero” in this context includes all greenhouse gas (GHG) emissions arising from WDBC’s direct activities (termed Scope 1 and 2) and from other indirect activities including its supply chains (termed Scope 3), which together result in the Council’s gross GHG emissions. Previously, the Council were aiming to become ‘net zero’ across Scopes 1, 2 and 3, however, upon further analysis and inspection, it has been concluded that achieving net zero under scope 3 would not be achievable for the council, primarily because of the way spend

based emissions are calculated and our ability to influence and control this. The council will continue to report on its scope 3 emissions and the new Organisational Decarbonisation Plan will include actions to influence our scope 3 emissions. This approach is consistent with recommended and discretionary carbon reporting as detailed in the graphic below.



<https://www.gov.uk/guidance/sharing-information-on-greenhouse-gas-emissions-from-local-authority-own-estate-and-operations-previously-ni-185>

(University of Exeter, 2019. Recommended vs Discretionary Greenhouse Gas Reporting)

This Greenhouse Gas (GHG) Emissions Report provides an overview of the organization's carbon footprint for the reporting period of April 1, 2021, to March 31, 2023. The report includes an assessment of Scope 1, Scope 2, and where applicable, Scope 3 emissions, as per the Greenhouse Gas Protocol.

This report aims to:

Identify and quantify the organisation's GHG emissions.

Analyse the main sources of emissions.

Identify weaknesses and potential inaccuracies.

3. Methodology

The quantification of emissions has been undertaken in accordance with Chapter 3 of HM Government 2019, Environmental Reporting Guidelines: Including streamlined energy and carbon reporting guidance. The 2021 and 2022 UK Government GHG Conversion Factors for Company Reporting were used in the calculations.

Calculations involve combining activity data with emission factors to estimate emissions across a range of categories. Activity data includes specific information from each category considered, for example the amount of energy used in a building, or fuel used in a vehicle.

Assumptions and weaknesses in the calculation methodology are discussed further on in section 6.

4. Emissions Sources

The Councils carbon footprint for the 2021 to 2023 fiscal years (1st April 2021 to 31st March 2023) is prepared in accordance with Chapter 3 of HM Government 2019, Environmental Reporting Guidelines. The guidelines require the classification of GHG emissions into three groups or Scopes:

Scope 1 (direct emissions from owned sources), including combustion of fuel in boilers in council owned buildings for heating and hot water, refrigerant leaks from council equipment and fuel in council vehicles.

Scope 2 (indirect emissions from generation of purchased electricity) which covers all electricity use across the council's services.

Scope 3 (other indirect) including GHG emissions embodied in all material and services bought by the council, business travel, grey fleet use and commuting, waste disposal, etc.

The report breaks down these emissions into their individual sources, figures highlighted in green represent a reduction in GHG emissions and those figures in red represent an increase in emissions.

Scope 1 Emissions:

Scope 1 emissions are direct GHG emissions from sources that are owned or controlled by the organisation. Buildings in scope are Kilworthy Park, Tavistock Business Centre, Okehampton Business Centre, 20 Plymouth Road and 10 St James Street. Fleet fuel use in scope, this is calculated from fuel cards. Waste fleet fuel included in scope 3 as an outsourced activity.

Sources of Scope 1 Emissions:

Emissions Source	2021/22 Emissions (tCO₂e)	2022/23 Emissions (tCO₂e)
Gas	63.1	60.4
Fuel for fleet	32.8	29.0
Total Scope 1 Emissions	95.9	89.3

Note regarding Fugitive Emissions (a scope 1 emission related to f gases derived from office waste and air conditioning):

Too small to quantify and analyse, previous analysis put this at 2.3 t CO₂e in 2020/21, it is unlikely this has changed.

Scope 2 Emissions:

Scope 2 emissions are indirect GHG emissions from the generation of purchased electricity, heat (not gas), or steam consumed by the organisation. The buildings in scope are Kilworthy Park, Tavistock Business Centre, Okehampton Business Centre, 20 Plymouth Road and 10 St James Street, Hayedown WTS and leased and other assets (such as toilets, payment meters and lighting) where we procure the energy.

Sources of Scope 2 Emissions:

Emissions Source	2021/22 Emissions (tCO2e)	2022/23 Emissions (tCO2e)
Electricity Consumption	54.3	52.8

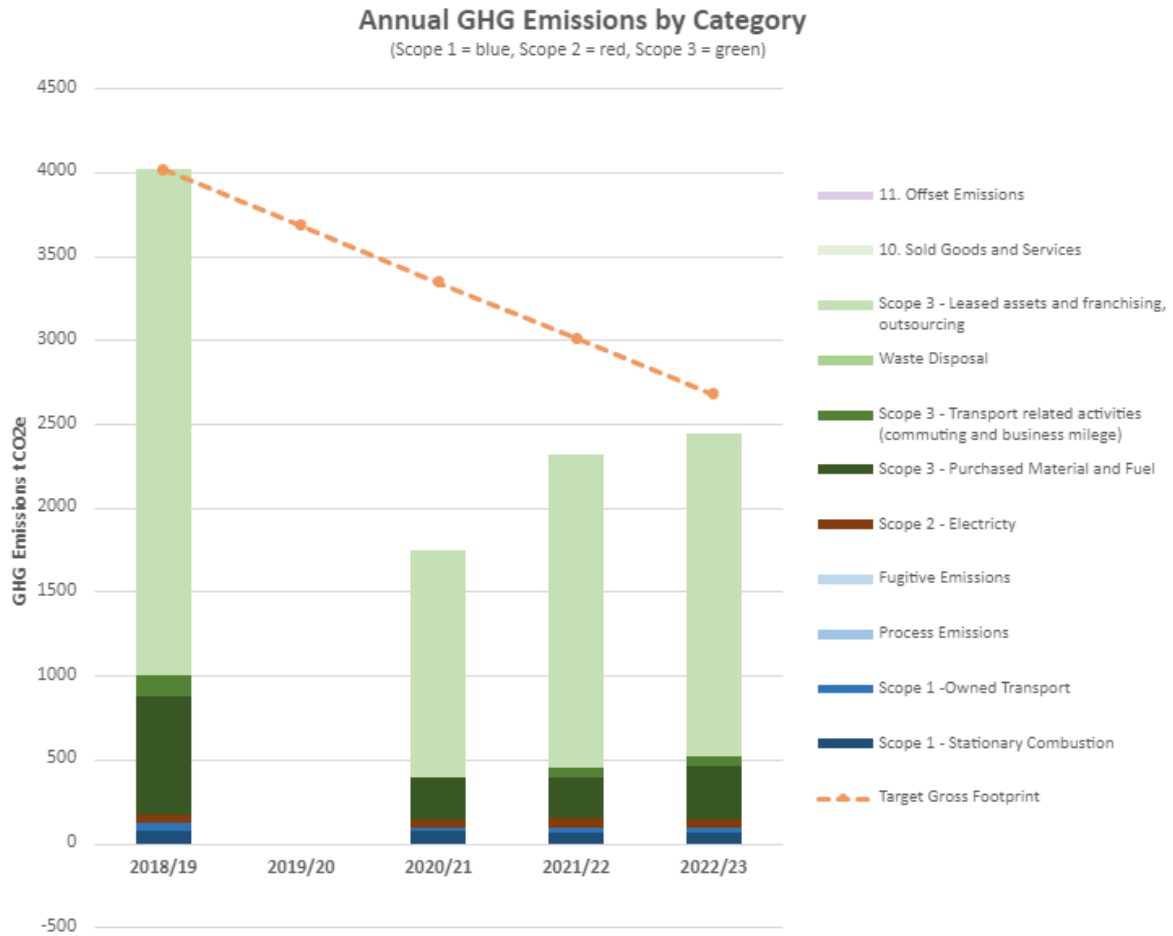
Scope 3 Emissions:

Scope 3 emissions are indirect emissions that occur in the organisation's value chain but are not owned or controlled by the organisation.

Sources of Scope 3 Emissions:

Emissions Source	2021/22 Emissions (tCO2e)	2022/23 Emissions (tCO2e)
Well to tank emissions (emissions that occur from resource extraction to refinery to delivery)	53.4	50.9
Procured goods	187.3	269.0
Employee Commuting, business mileage, councillor mileage	55.7	58.2
Purchasing and procurement	794.7	851.1
Leisure Centers	438.7	393.6
FCC fuel	636.1	665.5
WDBC Owned housing	0	9.0
Total Scope 3 Emissions	2165.9	2297.4

The graph below shows the emissions trends since our first footprint which was done in 2018/19 by University of Exeter. The 2018/19 footprint was found to have some small inaccuracies related to fuel consumption data, nor was marine fuel included at the time. However, as this is the only footprint the Council had pre covid it has been adjusted slightly to attempt to correct the fuel use for that year using available data from subsequent years.



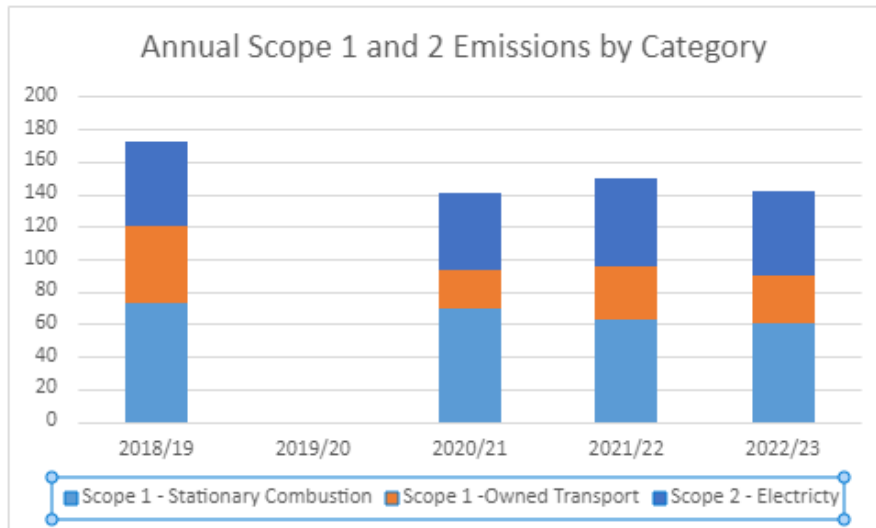
5. Emissions Analysis

Many of the emissions sources have seen increases between the 2021/22 year and the 2022/23 year. Since we began calculating our emissions, we have not had a consistent year for reporting purposes, whether this was a result of reduced activity due to the covid pandemic, or improvements to our data collection and processing (such as procurement, fuel, and leased assets). Due to this, our emissions have varied year on year. The 2018/19 footprint contained inaccuracies around fuel use. Changes to this footprint period have been made for the purposes of this report and are discussed in section 6.

Overall, changes to our emissions are a result of reduced activities throughout the Covid pandemic which suppressed emissions in 2020/21 and resulted in an increase in the 2022/23 year.

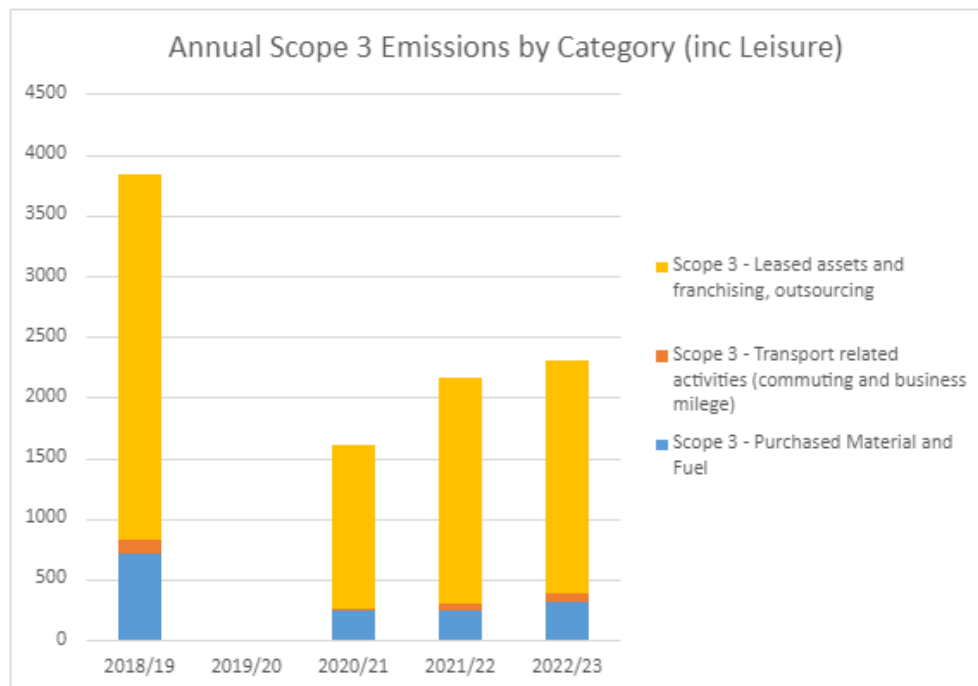
Comparing the corrected baseline year 2018/19 to 2022/23, overall emissions increases have fallen because of reduced expenditure (2018/19 featured £1m of spend on leisure centre improvements).

Looking at scope 1 and 2 only, emissions have remained fairly consistent, the graph below shows the emissions trends for the same period.



When compared with the graph in section 2, it demonstrates how scope 3 emissions affect the overall emissions for the Council, in short, the areas where we have less control represent the largest areas of emissions.

Conversely, the graph below shows the scope 3 emissions for the Council.



Whilst scope 1 and 2 emissions have remained consistent since 2018, scope 3 has changed depending on the spending of the Council, other changes in non-fleet transport have occurred due to changes in working practices and council activity. Between 2021/22 and 2022/23, increased costs associated with 'contractor payments', 'property maintenance and repair', 'office equipment', 'temporary housing' associated with homelessness prevention and B&B payments, all resulted in higher spend based emissions. In 2018/2019, our spending emissions were calculated in a more generalised manner with less granular detail, this year also featured

higher spending, partly associated with works to our leisure centres. Furthermore, WDBC brought 6 properties in Okehampton in 2023, these properties however are mostly B rated by their Energy Performance Certificates, with one D rated.

6. Data accuracy and completeness

Identifying and addressing these weaknesses in our GHG calculations is crucial for ensuring accurate, transparent, and credible reporting. Regular reviews, updates, and independent verification can help improve the accuracy and reliability of GHG calculations and enhance our reporting with each year.

Assumptions and Uncertainty:

Correcting the 2018/19 footprint

In 2020, a Principal Climate Change Officer was appointed and conducted a review of the Councils GHG footprint in 2021. It was discovered that the fuel data was likely to be incorrect, around 512,337 Liters of fuel was reported, and the marine fleet data was missing. To attempt to derive a more representative footprint for 2018/19 for this report the issue was highlighted to the fleet manager who was able to provide a truer figure, 2019 data was extracted, where 12008.94 Liters of diesel were used. This figure has been included in the 2018/19 footprint year and whilst this figure is not wholly accurate for the reporting period, it represents a more representative use of fuel compared to the previously used data.

Furthermore, a miscalculation in spending was identified, £895,095 was originally attributed to 'recreational services'. Upon investigation, this spending was related to construction costs at Parklands and Meadowlands. This correction resulted in an overall increase in 2018/19 emissions.

Commuting emissions (Scope 3)

Commuting emissions for the reporting period are estimated on a 2018 analysis of employee's place of residence and the nearest council office, assuming 50% agile working (on average each employee makes 2.5 commuting round trips per week) this analysis was conducted by the University of Exeter. For 2021 – 2023 this assumption has been revised assume 80% working from home post covid and 20% commuting (i.e., on average one commuting round trip per week). Further adjustments have been made to account for an increase in staff numbers, an uplift factor was derived and applied to roughly estimate the Councils commuting emissions. Given the reliance on assumptions here, and not real-world travel data for each member of staff across each day of the year, the commuting element of the footprint is a weakness.

Procurement and Spending (Scope 3)

Emissions from procurement are a significant part of WDBC's footprint but are difficult to quantify with any degree of confidence. The most accurate means of quantifying emissions from procurement would be for suppliers of goods and services to provide specifically calculated emissions for each contract. However, as this is not currently common, instead emissions from "procurement" (which span a broad range of activities and include capital and revenue spend) are estimated by multiplying the spend within a category (based on Standard Industrial Classification [SIC] code) by an associated emission factor (kgCO₂e/£ spent).

Before 2021, our spend data was not accurate enough to match spending with a SIC code and were more generalised, which results in lower emissions reporting. However, after working with finance, we have been able to match SIC codes with ledger code descriptions. Whilst this provides a greater degree of confidence, the calculations are still not made on each line of spend (roughly 40,000 individual transactions) and instead made based on categories, around 350. An example of the calculation is below.

Spend Description Code	Description	Nearest SIC match	Emission Factor	Amount (£)	Emissions(tCO2e)
0303	Transport Insurance Recharge	Insurance and Pension funds	0.53	6,576.34	1.84
0315	Contract hire and operating leases	banking and finance	0.70	66,255.43	9.94
0407	Postage	Post and telecommunications	0.53	47,985.61	19.67
0411	ICT Product Support - General	Computer services	0.53	27,363.87	5.473
0412	ICT Product Support - Service Specific	Computer services	0.53	27,344.10	5.469

As we are matching SIC descriptions with ledger code descriptions, we are assuming all the spending under that ledger code is related to the same activity we are matching with, for example, in line 1 above, ledger code 0409 is for all spending relating to office machinery and computers. It may be that spending unrelated to this are included here, we currently do not have the ability to classify each individual spend to align with a SIC code, to do this currently would involve a manual process going through over 40,000 lines of spend to match with a SIC. To improve the accuracy of spend based emissions reporting we have also filtered data to remove items of spend that not within the scope of emissions from purchasing, such as.

Suppliers that have been included in the footprint elsewhere were manually removed, for example waste contractor FCC (included separately under transport in Section 6) and all energy suppliers (where they could be identified using standard searches).

Suppliers for services which were out of scope were excluded by searching for terms within the supplier codes. This included categories such as paying for temporary staff through agencies, salaries and distributing money e.g., to parish councils for them to spend, or other transactions where the authority was just acting as a point of distribution for example any grants connected to Covid, and housing benefit costs for example.

Overall, for the reasons explained, there is still a degree of uncertainty in scope 3 reporting and any changes to calculation methodologies in future years will likely change scope 3 emissions. Furthermore, as the current method of calculating emissions is based on a per £ spent, the more a council spends, the higher emissions can go, and conversely as spending decreases so do emissions.

Water use (Scope 3)

Water usage is currently absent from our reporting as a separate entity, accounting for this across the estate is challenging and therefore this is wrapped up in our spend emissions. The

council should look for ways to quantify the use in future years, this will require improvements to data capture.

WDBC Owned Housing

West Devon Borough Council now own a number of properties which are either rented out or used for temporary housing for people in need. To derive a carbon footprint for these properties we have opted to extract predicted emissions from each properties energy performance certificate (EPC). This method is less accurate than using actual energy use data which will involve seeking this information from each of our tenants. However, as these buildings sit within scope 3, this approach is deemed suitable, is unlikely to be vastly different from EPC emissions data given that most of our properties are rated A. This approach also is more accurate than using average benchmarking energy use data for different property types.

Boundary Setting

Currently, there is a risk that some elements of our activity are incorrectly aligned to the correct organisational boundary which can result in underestimation or overestimation of emissions. For example, our degree of control over individual assets varies depending on the lease, an equity share approach will result in emissions moving to scope 1 and 2, approaches where the lessor does not have operational control, emissions are to be reported in scope 3. Given that we do not have operational control of most of our leased assets, an approach has been taken to classify these emissions wholly within scope 3, unless we are responsible for procuring the energy, in which case this is included in scope 2.

Working from home emissions are also currently not quantified, this is largely because we do not have reliable data to understand exactly how often each member of staff has worked from home. Whilst we used a level assumption to work out our commuting emissions, this approach is inaccurate, to apply the same level of assumption to working from home would increase the level of uncertainty in the Councils overall footprint. High level calculations indicate that if all FTE staff worked from home every day of the working year it would amount to emissions of 48 tCO₂e which is lower than if all FT staff worked at the office every day of the year which would be around 200 tCO₂e, making assumptions about mileage per person using national benchmark data. Due to the rural nature of our authority and spread of our staff across Devon and beyond, working from home amounts to reduced emissions compared to commuting. In the future we hope to be able to explore ways to capture more accurate data using office key card scan data, for example, to more accurately account for office use by staff.

