

Report title	Runnymede Borough Council Green House Gas Emissions Report 2022/2023
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Department	Planning, Economy & Built Environment
Exempt?	No

Purpose of report:

For information

Synopsis of report:

This report presents the Council’s CO2e emissions for the financial year 2022/2023 and compares them to previous years. The report sets out that some figures from preceding years have been updated following further in-depth review by officers. These changes are described in the body of the officer report. The 2022/23 emissions presented are compared against these updated figures.

1. Context and background of report

- 1.1 This Greenhouse Gas Emissions (GHG) Report details the carbon emissions resulting from the Council’s service and operations during the financial year of 2022/2023.
- 1.2 The Council has been annually reporting it’s GHG emissions since the financial year 2008/2009. However, in October 2022, work on Runnymede Borough Council’s Climate Change Study began. The main purpose of this Climate Change Study was to support the implementation of Runnymede Borough Council’s Climate Change Strategy and Action Plan and underpin the Local Plan Review process.
- 1.3 In October 2023, Stage 1 of Runnymede Borough Council’s Climate Change Study was completed and the associated report ‘Runnymede Climate Change Study: Council Estate and Area GHG Baseline’ (hereafter referred to as the Aether baseline study/Aether report) is attached as Appendix A
- 1.4 This work established the emissions baseline for both the Council and the borough and improved and streamlined the Council’s carbon monitoring, measuring and reporting methodologies. The Council’s emissions baseline year was chosen to be 2019 to be in line with Surrey County Council reporting. Full Council noted the contents of the Aether baseline study in October 2023.
- 1.5 This work has had a key role to play in helping the Council better understand the scale of carbon emissions from different operations/sectors. It provides a variety of

useful data to help the Council prioritise decarbonisation actions, and measure the effectiveness of these actions over time.

- 1.6 In compiling the 2022/23 emissions however, and contrasting with the previous years, officers have discovered a number of minor errors in the Aether report which stem from errors in the supporting calculations. Making the necessary amendments has not had a significant impact on the overall total emissions figures for previous years which are actually now slightly reduced. Furthermore, the updated figures in the Aether baseline report actually now show a more consistent progression of emission reduction for the council buildings in each category. The tables below summarise the differences in emissions in tCO₂e, as well as the resulting percentage change in total emissions from each scope between the published Aether baseline report and the amended version attached at Appendix A (where changes have been shown tracked).

Table 1: Calculated change in emission values from published Aether report to RBC calculations (tCO₂e)

	Change in emissions total (tCO ₂ e)		
	2019/20	2020/21	2021/22
Change in tCO ₂ e to Scope 1 & 2 total	+42	-5	+77
Change in tCO ₂ e to Scope 3 total	-2119	-1195	-1076
Change in tCO ₂ e to Total Council Emissions	-2077	-1200	-999

Table 2: Calculated % change in emissions totals from published Aether report to RBC calculations

	Change in emissions total (%)		
	2019/20	2020/21	2021/22
% Change to Scope 1 & 2 total	+2.8	-0.40	+6
% Change to Scope 3 total	-11.6	-4.8	-5.2
% Change to Total Council Emissions	-10.5	-4.6	-4.6

- 1.7 The new, enhanced 2019 baseline as shown in the document at Appendix A will be used as a benchmark to compare all future reporting of Council emissions (as is the case in this report) and measure our progress towards meeting our adopted Council target to achieve operational 'Net Zero Carbon' emissions from our services and operations by 2030, agreed in January 2022.
- 1.8 This is the first annual report of emissions since the Aether baseline study was completed and it uses the emissions accounting approach and methodology developed in that study in its calculations. The key elements of this approach are

given below and considered in more detail in chapters 2 and 3 of the attached Aether report.

Approach

1.9 The emissions accounting methods used to develop our baseline and calculate the Council's emissions are derived from the guidance given in the Green House Gas (GHG) Protocol. The GHG Protocol supplies the world's most widely used GHG accounting standards and establishes comprehensive global standardised frameworks to measure GHG emissions from private and public sector operations, value chains and mitigation actions. The standards produced are designed to provide a framework for businesses, governments and other entities to measure and report their GHG emissions in ways that support their goals.

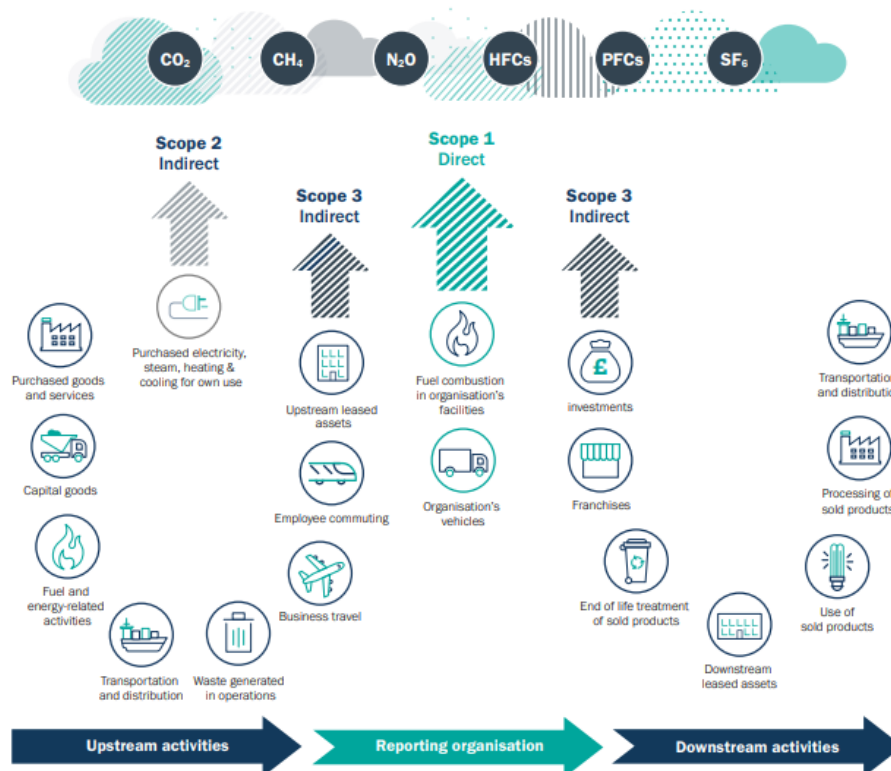
Operational Boundary

1.10 An operational boundary defines the emission sources that are included in GHG reporting. Within the GHG reporting guidelines, emission sources are divided into three scopes. Setting a clear operational boundary defines which emission sources are included in the reporting and which ones are excluded. Table 3 sets out scope definitions as described in the Green House Gas protocol. Figure 1 below gives an overview of the scopes and emissions across a typical organisation.

1.11 Table 3 Scope definitions

Scope	Definition
Scope 1	GHG emissions from sources owned or controlled by the council.
Scope 2	GHG emissions from the consumption of purchased electricity, steam or other sources of grid-generated energy. Includes electricity supply to the council's operational buildings.
Scope 3	GHG emissions that occur indirectly from council activities, outside the control of the council (e.g. the council's procured services and investments).

Figure 1: Overview of scopes and emissions across a typical organisation – GHG protocol



Organisational Boundary

1.12 An organisational boundary defines which parts of an organisation are included for the purpose of GHG reporting. At Corporate Management Committee in March 2023, it was agreed that the Council would report its emissions using an operational boundary approach. This operational boundary approach is defined in the GHG Protocol corporate reporting guidance as:

'Your organisation reports on all sources of environmental impact over which it has operational control. Your organisation is considered to have operational control over an operation if it or one of its subsidiaries has the full authority to introduce and implement its operating policies at the operation.'

1.13 Further detail on the reasoning behind choosing this approach is given in section 2.2.3 of the Aether baseline report.

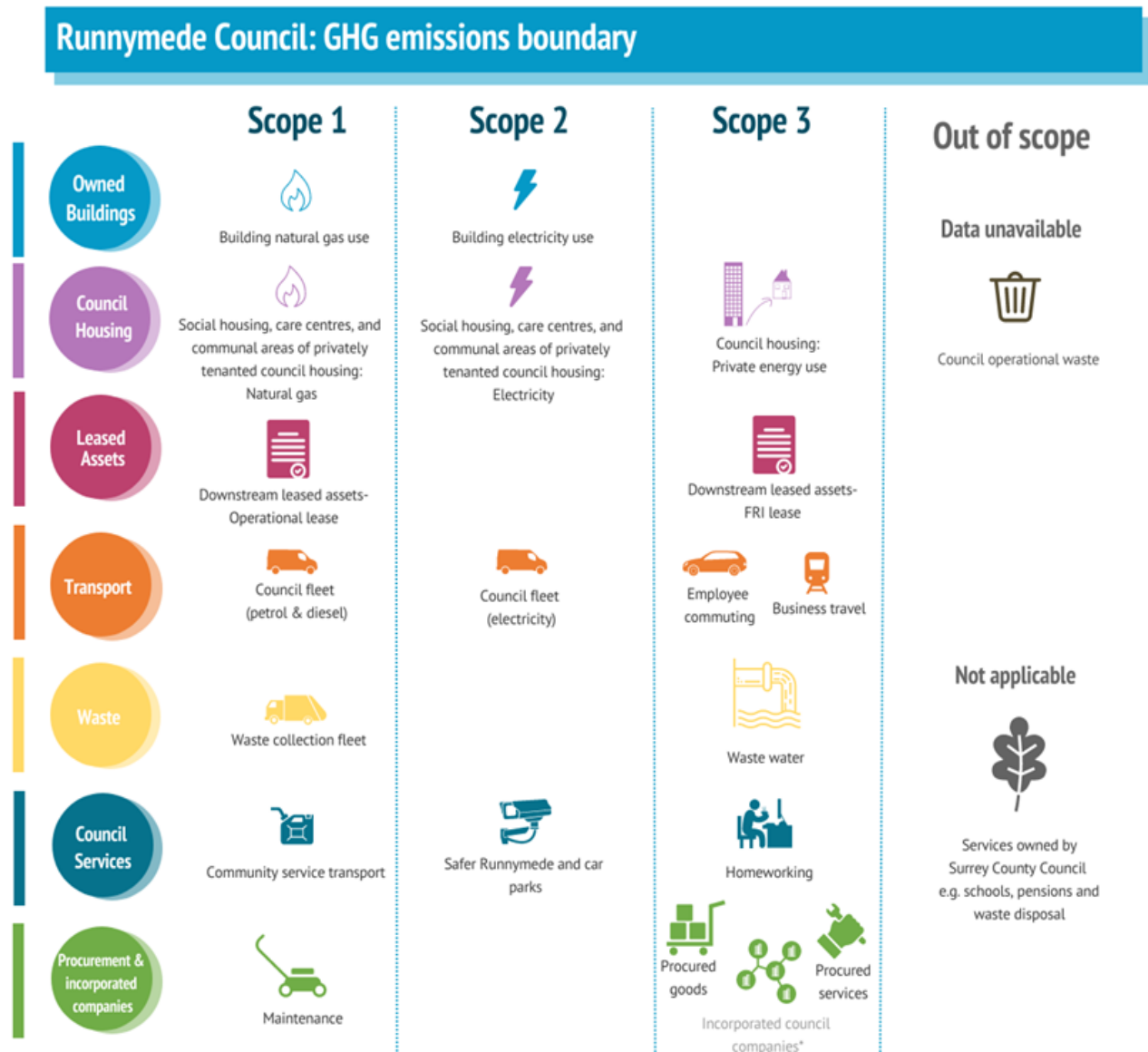
1.14 It is important to note that the organisational boundary agreed will be for reporting purposes only and does not preclude the Council from working to reduce emissions in areas of its influence not included or reported on within the chosen boundary. This also applies to areas where data to show progress is hard to come by.

1.15 The Council is committed to considering the full scope of emissions occurring within the operational boundary within the limits of the organisational boundary.

1.16 Figure 2 below presents more detail on the activities within the three scopes that are included in the Council baseline and subsequent reporting. Further detail on how the

chosen organisational approach impacts emission allocations within specific emission sources is presented on pages 8 and 9 in Chapter 2 of the Aether report attached.

Figure 2: Summary of the scope of emissions baseline for the council estate



Key points regarding the organisational approach and emission allocation

Leased Assets

1.17 Leased assets may be included in a local authority’s Scope 1 or Scope 2 inventory depending on the type of lease and the consolidation approach the local authority uses to define its organisational boundaries. Under the operational approach chosen, when the Council leases a building to another user on a Fully Repairing and Insuring (FRI) lease, the emissions associated with the operation of that building are allocated to Scope 3. This is because the level of influence such a lease allows means that the Council is limited in the work that can be done until break clauses in the associated contracts occur.

Council Housing

- 1.18 **Sheltered housing and care provision:** Emissions from all council owned and operated sheltered housing, including care and retirement homes are included under Scope 1 and 2
- 1.19 **Communal areas:** The Council is responsible for communal areas of housing such as external lighting, entryways, corridors, stairways, etc. Therefore, it has control over the emissions from the lighting, heating, etc. in these areas. As the Council can influence the emissions by, for example installing more energy efficient lighting or replacing gas central heating with a heat pump, it makes sense for the Council to account for these emissions. Reporting for these areas falls under Scopes 1 and 2.
- 1.20 **Landlord services:** Although the Council owns the heating systems installed in our properties used for Council housing, these properties are privately tenanted. As such, the Council is not responsible for the payment of bills and does not have operational control of the use of energy.
- 1.21 Therefore, the energy emissions from privately tenanted housing are included under Scope 3 in line with a service and operational based accounting approach.

Incorporated council companies

- 1.22 The operational emissions of the RBC Companies (RBC Heat, RBC Investments and RBC Services) are included in Scope 3 when using the operational control boundary approach.

Exclusions from scope

- 1.23 Surrey County Council Services i.e. waste processing, streetlighting, schools and pension fund. Runnymede Borough Council is not a waste authority and therefore in accordance with the LGA reporting guidance for local authorities¹ will not report emissions arising from waste in the Council estate scope. The emissions from the waste collection fleet however are included under Scope 1. The same principle has been applied to other services that Surrey has operational control over such as schools.

Accounting approach and methodology

- 1.24 As detailed previously in paragraph 1.8 of this report, this is the first annual report of emissions since the Aether baseline study was completed. The emissions accounting approach and methodology developed in the Aether baseline study have been used to compile the 2022/2023 GHG emissions estimates for the Council. This methodology is detailed in Chapter 3 of the Aether report which also introduces the key concepts of emissions accounting and presents the sources of input data used in the calculations.

¹ <https://www.local.gov.uk/climate-change-reporting-guidance-local-authorities#scope-3-emissions-reporting-categories->

1.25 Emissions are reported as a mass of CO₂ equivalent, otherwise expressed as CO₂e. Whilst less abundant than CO₂, other GHGs such as methane (CH₄) and nitrous oxides (N₂O) have a greater warming effect than CO₂. A Global Warming Potential (GWP) factor is applied to these GHGs to convert to CO₂e. Further detail is given in section 3.1.1 of the Aether baseline report on this point.

1.26 As described above, the Council emissions are shown in this report from the redefined baseline year of 2019/20 onwards for comparison purposes.

2. Report and, where applicable, options considered and recommended

2.1 The Council emissions estimates from 2019 to March 2023 for all three scopes are presented in table 4 below.

Table 4: Emissions (in tCO₂e) and percentage change in emissions from each sector, 2019/20-2022/23

Sector	Scope	Emissions (tCO ₂ e)				Change between 2019 baseline and 2022 (%)
		2019/20	2020/21	2021/22	2022/23	
<i>Council Buildings – Operational</i>	1+2	256	249	220	214	-16.4
<i>Council Buildings – Sheltered housing and communal use</i>	1+2	316	315	304	279	-11.7
<i>Council Buildings – Community</i>	1+2	260	212	227	210	-19.2
Council buildings – Total	1+2	832	776	751	703	-15.5
Green spaces and machinery	1+2	47	44	19	41	-12.7
Council fleet	1	147	81	102	132	-10.2
Streetlighting + CCTV	2	24	18	18	20	-16.7
Waste collection & transport	1	513	470	470	528	+2.9
Scope 1 and 2 emissions total		1,563	1,390	1,360	1,424	-9.0
Council buildings – community leased assets	3	16	10	8	6	-62.5
Water	3	38	45	36	20	-47.4
Commuting	3	752	433	434	418	-44.4
Business travel	3	36	15	25	26	-27.8
Homeworking	3	0	180	213	189	N/A
Housing – tenant consumption	3	9733	9734	9697	9529	-2.1
RBC Heat Company Ltd (DHN)	3	9	5	242	260	+2788.9
Procurement of goods and services	3	5612	13291	8908	6275	+11.9
Scope 3 emissions total		16197	23714	19563	16723	+3.3
Council total		17760	25104	20923	18147	+2.2

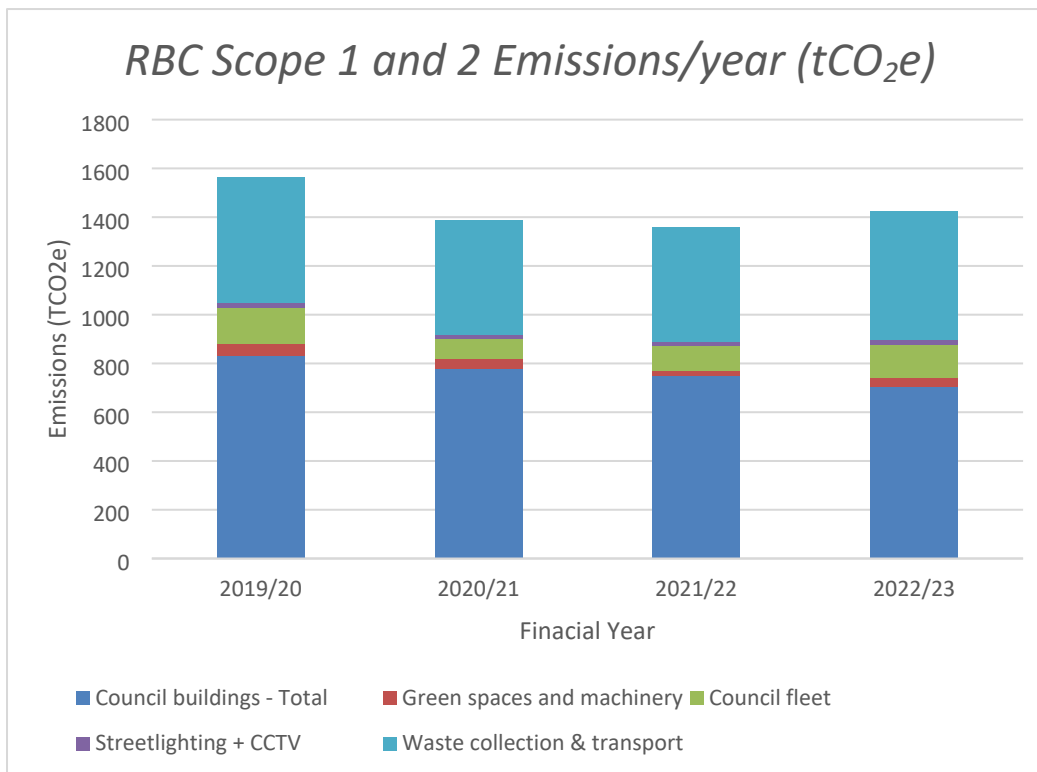
2.2 Total emissions Scope 1, 2 and 3

- 2.3 The Council's total GHG emissions (Scope 1-3) in 2022/23 were estimated to be 18147tCO₂e. A 2% increase in total emissions was estimated between the baseline year of 2019/20 and 2022/23. This increase is due to an increase in emissions from our Scope 3 sources (GHG emissions that occur indirectly from Council activities, outside of the direct control of the Council), specifically from emissions from procured goods, works and services and emissions produced by RBC Heat Ltd. This is discussed further in paragraph 2.10 below.
- 2.4 Overall, emissions from Scope 3 sources account for 92% of the Council's total GHG emissions. Emissions from Scope 1 and 2 (emissions arising from sources owned or controlled by the Council directly or resulting from the consumption of purchased electricity, steam or other sources of grid-generated energy) account for the remaining 8% of the total GHG emissions.
- 2.5 The adopted Council target to achieve operational 'Net Zero Carbon' emissions from our services and operations by 2030, agreed in January 2022, includes all Scope 1 and 2 emissions. Scope 3 emissions sit outside this target as they occur indirectly from Council activities. However, the Council is committed to reducing Scope 3 emissions and other emissions that may fall outside the scope of reporting as far as practicably possible within its sphere of influence.

Scope 1 and 2 – within council target

- 2.6 Emissions arising from Scope 1 and 2 only, are estimated to be 1424tCO₂e for the year 2022/23. Showing a decrease in 9% since the baseline year of 2019/20.
- 2.7 Considering emissions from Scope 1 and 2 only, the most significant amount of emissions arise from energy consumption within Council buildings (49% of the total Scope 1 and 2). Waste collection and transport is the next most significant source comprising of approximately 37% of total Scope 1 and 2 emissions. Emissions from fuel consumed within the Council owned fleet is responsible for approximately 9% of the total, with emissions from green spaces and machinery comprising approximately 3% and street lighting and CCTV attributable to approximately 2%.
- 2.8 A consistent progression of emissions reduction is shown for all Scope 1 and 2 Council buildings which can mostly be attributed to the decarbonisation of the electricity grid driving reductions in emissions associated with electricity consumption.
- 2.9 Whilst the Committee may be disappointed with the slight increase in the Council's scope 1 and 2 emissions between 2021/22 and 2022/23, table 2 above and figure 3 below shows that the increase in emissions is largely attributable to emissions from Council's fleet slightly increasing. The production of the Council's Sustainable Fleet Management Strategy during the 2023/24 financial year (due to be considered for adoption at Full Council on 25th April), and the agreement at 7th March 2024 Environment and Sustainability Committee to make Hydrotreated Vegetable Oil the preferred fuel choice for the Council fleet from the 2024/25 financial year are expected to see more significant reductions in the Council's scope 1 and 2 emissions from the 2024/25 financial year onwards.

Figure 3: RBC Scope 1 and 2 emissions per year (tCO₂e)



Scope 3 – outside of council target

- 2.10 As discussed in paragraph 2.4 above, emissions arising from Scope 3 are significant, comprising 92% of the total emissions from the Council estate in 2022/23. Emissions in this scope are dominated by two sectors with large associated emissions, namely Council housing tenant consumption and procurement of goods, works and services making up 57 % and 38% of total Scope 3 emissions respectively. The next largest estimated sources are those attributed to staff commuting, RBC Heat Company Ltd and homeworking contributing 2.5%,1.6 % and 1% respectively. The large relative increase in emissions from RBC Heat Ltd seen since 2019 is due to the commencement of the District Heat Networks used for the Adlestone One and Magna Square developments.
- 2.11 Trends in emissions related to the third-party provision of goods, works and services and are explored in more detail in section 4.1.4 the Aether report.
- 2.12 Table 2 above shows that whilst the Council’s scope 3 emissions in 2022/23 slightly increased above the 2019 baseline, the emissions from this scope have dropped year on year since 2020/21. In terms of future initiatives expected to reduce the Council’s scope 3 emissions, the Council adopted a new Procurement Strategy and Sustainable Procurement policy in March 2023. The Procurement Strategy addresses all elements of procurement activity carried out at the Council at both a strategic and operational level to support the delivery of the Corporate Business Plan and Service Area Plans. At a strategic level, this will include consideration of ethical and environmental impacts as part of contractual requirements and seek the achievement of sustainable outcomes that support the climate change agenda. The Sustainable Procurement Policy sets out how environmental considerations will be built into the procurement and delivery of goods, works and services through its

specifications, tender questions, evaluation criteria, key performance indicators and clauses of contracts. The implementation of both strategies is therefore anticipated to help reduce emissions in future years.

2.13 In the 2024/25 financial year, a Green Travel Plan for staff is also to be produced to help address emissions in this area. In relation to tenant energy use, the Council's Housing Team continues to work towards achieving its target for all tenanted council homes to achieve EPC C by 2030. Funding opportunities continue to be explored to decarbonise the Council's housing stock.

Figure 4: RBC Scope 3 emissions per year – largest sources in tCO₂e

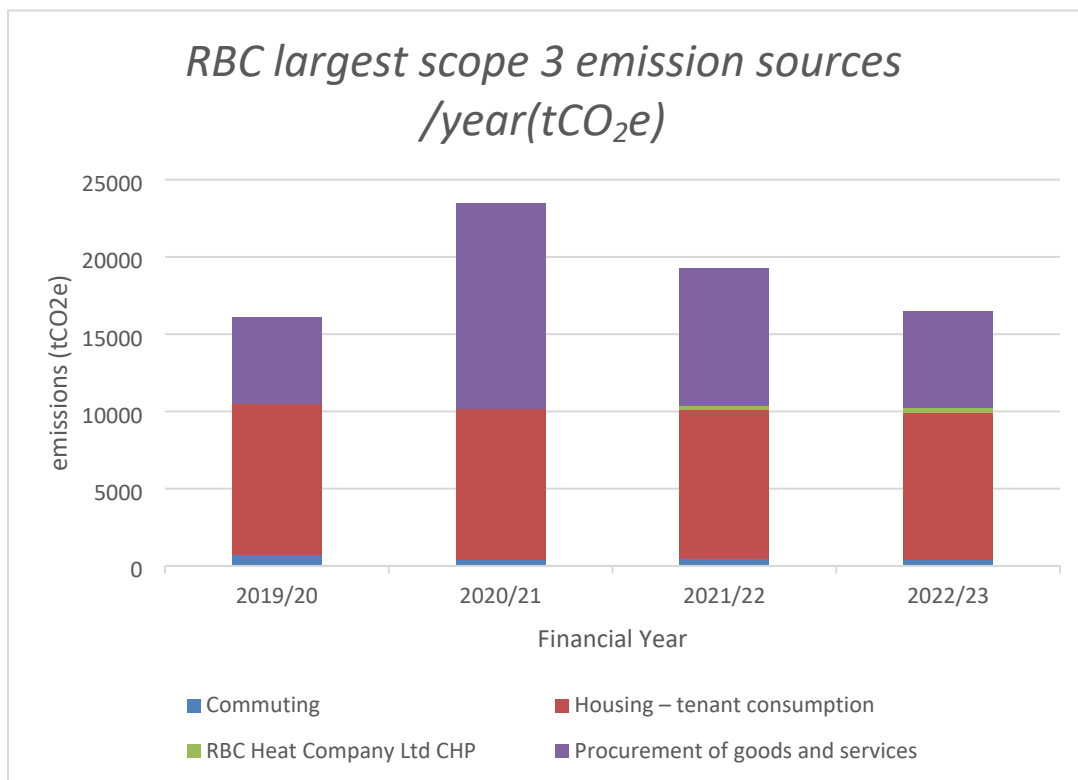


Figure 5: RBC Scope 3 emissions per year - smaller sources in tCO₂e

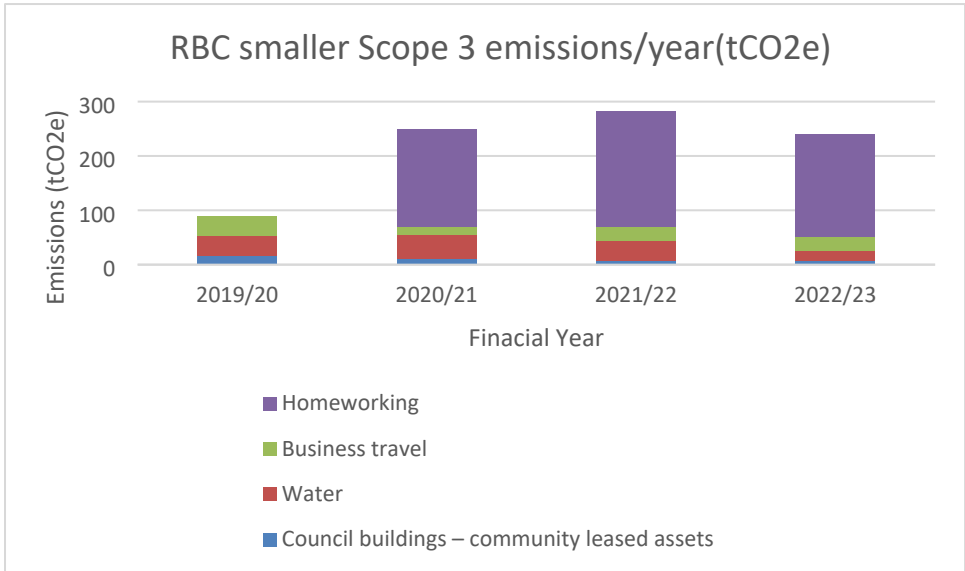
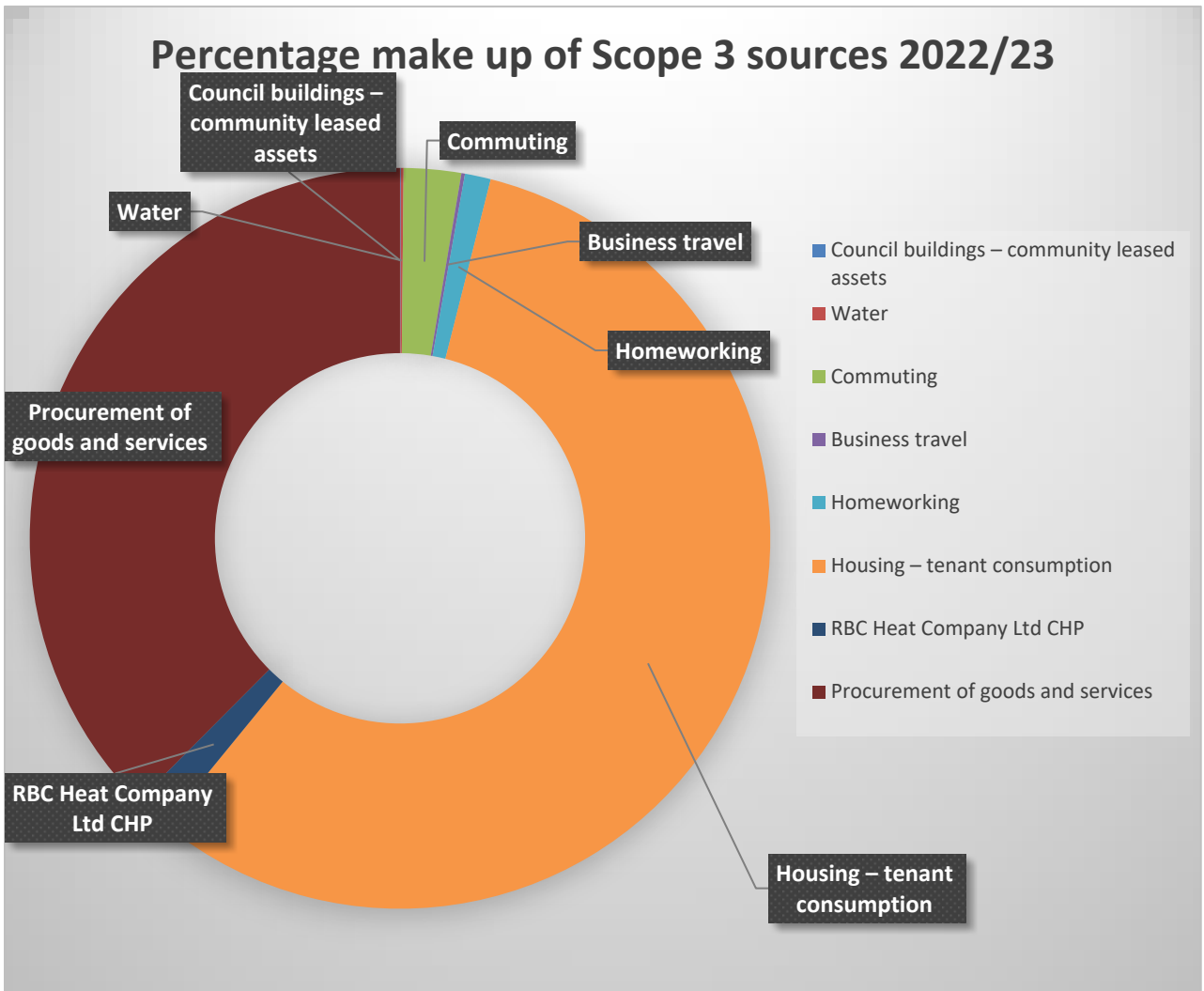


Figure 6: percentage make up of Scope 3 sources for the financial year 2022/23



3. Policy framework implications

- 3.1 In January 2022, the Council committed to tackling climate change and adopted a target to achieve operational 'Net Zero Carbon' emissions from its services and operations by 2030. The overarching target for the Borough and the UK is to reach net zero carbon emissions by 2050.
- 3.2 In October 2022, the Council adopted its Climate Change Strategy which reconfirms the Council's commitment to acting on climate change. A Climate Change Action Plan to set out a roadmap of activities which the Council could undertake to help achieve the 2030 and 2050 targets was adopted by the Council in February 2024.
- 3.3 In December 2023, the Council resolved to declare a climate emergency, recognising that the consequences of global temperatures rising above 1.5 degree Celsius are so severe that preventing this from happening must be humanity's priority. As such, the Council committed to using its reasonable endeavours to continue its work to meet the Council's target of net zero operational emissions by 2030, and to use its sphere of influence to support the Borough and its communities to achieve the 2050 national net zero target for the UK.
- 3.4 This annual emissions accounting work is essential in enabling the Council to achieve these targets and successfully measure and monitor our progress towards doing so.

4 Resource implications/Value for Money (where applicable)

- 4.1 Although there are no immediate resource implications arising from this report, in order to meet the Council's operational Net Zero target and decarbonise our estate, considerable additional funding will be needed. The Council has allocated some budget to help work towards its climate change commitments over the coming years, however this funding is likely to be insufficient to meet its operational net zero target. Therefore, officers will continue to pursue opportunities to secure grant funding where appropriate to help bring the anticipated funding gap.

5. Legal implications

- 5.1 The Paris Agreement which is a legally binding international treaty on climate change was adopted by 196 Parties, including the UK at COP 21 in Paris on 12 December 2015 and came into force on 4 November 2016. Its goal is to limit global warming to well below 2 degrees Celsius, preferably 1.5 degrees Celsius, compared to preindustrial levels.
- 5.2 In June 2019, Parliament passed The Climate Change Act 2008 (2050 Target Amendment) Order 2019, which requires the Government to reduce the UK's net emissions of greenhouse gases by 100 per cent relative to 1990 levels by 2050.

5.3 The then Department of Energy and Climate Change signed a Memorandum of Understanding (MOU) with the Local Government Association on 9 March 2011 to recognise the pivotal role local authorities have in reducing emissions at the local level.

5.4 Local Authorities in England are required by the Department for Energy Security and Net Zero to measure and report on their Greenhouse Gas Emissions from their own estate and operations.

6. Equality implications

6.1 Not applicable

7. Environmental/Sustainability/Biodiversity implications

7.1 The objectives set out in the Climate Change Strategy aim to enhance the environment and to promote sustainability and biodiversity. Annual emissions reporting is essential in enabling the Council to successfully measure and monitor its progress towards achieving its targets and goals to combat climate change.

8. Risk Implications

8.1 There is a risk of the Council not meeting its agreed 2030 target its services and operations, largely due to financial and resource constraints. This risk is captured in the Corporate Risk Register

9. Other implications (where applicable)

9.1 Not applicable

10. Timetable for Implementation

10.1 The Council will report annually on its GHG emissions. The production of this report was delayed due to it being the first reporting period after the production of the new refined and more in depth baseline. A further emissions report for the financial year 2023/4 will follow in the Summer of 2024.

11. Conclusions

11.1 The Council's total GHG emissions (Scope 1-3), in 2022/23 were estimated to be 18147 tCO₂e. Overall, our total GHG emissions have risen slightly since 2019/2020 (by 2.2%). This is mainly due to an increase in emissions from our Scope 3 sources (GHG emissions that occur indirectly from council activities, outside the control of the council) which account for 92% of the council's total GHG emissions.

11.2 Increases are seen predominantly from two sources in this Scope 3 category, namely emissions generated by the procurement of goods, works and services showing an 11.9% increase and also from emissions generated by RBC Heat Ltd showing an increase of 2788.9%. As described above, the large relative increase in

emissions from RBC Heat Ltd seen since 2019 is due to the commencement of the District Heat Networks used for the Addlestone One and Magna Square developments.

- 11.3 There is an overall decrease of 9% in our estimated Scope 1 and 2 emissions totals between our baseline year of 2019/20 and 2022/23. All categories of emission source in our Scope 1 and 2 sources of emissions (emissions arising from sources owned or controlled by the Council directly or resulting from the consumption of purchased electricity, steam or other sources of grid-generated energy) have decreased year on year since 2019/20, except those associated with our diesel/petrol fuel use (waste collection and transport, council fleet and green spaces and machinery).
- 11.4 The Council's agreed move to using HVO and procurement of electrically powered greenspaces management tools and Meals at Home vans will all contribute to reducing our emissions from these sources in the future. Implementation of approved strategies, including the Council's Electric Vehicle Strategy, Procurement Strategy and Sustainable Procurement Policy are also anticipated to help reduce emissions. Other planned activities such as the production of a Green Travel Plan for employees also present further opportunities to make a positive difference. However, there is still considerable work to be done to meet our agreed target of Net Zero emissions from our operations and services (Scope 1 and 2) by 2030.

12. Background Reports

[Climate Change Study Stage 1 – Organisational Boundary and Scope Allocation CMC Report March 2023](#)

13. Appendices

Appendix A-Updated Aether Baseline Report