

Second Year Emissions Report

CARBON NEUTRAL PLAN

Section 1	Purpose and Background: CNP Second Year Report
Section 2	Methodology
Section 3	Summary of Achievements and Emissions Progress
Section 4	Summary of Challenges
Section 5	Climate Theme progress
Section 6	Conclusion

Section 1: Purpose and Background: Carbon Neutral Plan Second Year Emissions Report

Purpose

The Council’s Carbon Neutral Plan (CNP) outlines the Borough’s path to become carbon neutral by 2030, in line with the scientific target necessary to limit global temperature rise to 1.50C. Actions outlined in the Carbon Neutral Plan are how residents and stakeholders can hold the Council’s progress in achieving carbon neutrality to account. However, climate action requires concerted effort at all levels: individuals, communities, organisations, national government and international organisations and the CNP therefore serves as a basis to bring all types of stakeholders together.

Background – CNP Development

In November 2019 Element Energy, on behalf of the Council, produced an Evidence Base to support the development of a pathway to carbon neutrality by 2030 and which the Carbon Neutral Plan was developed. The Evidence Base set out three pathways, of which the Maximum Ambition pathway is followed by the Council.

In winter and spring 2021, the Council carried out an online consultation on the draft Carbon Neutral Plan and hosted online events with residents, selected businesses and other organisations, to gather feedback, comments and suggestions on The Council’s Climate Change agenda. In the interests of strategy alignment and the opportunities for knowledge sharing and lessons learnt, Royal Borough Greenwich has set out its own seven priorities that mirror the strategic work being undertaken at a pan London level, whilst also reflecting the views of the borough’s residents.

Background – Climate Themes

The seven key themes are listed below. Progress in reducing our operational emissions and the borough’s emissions is assessed through these key themes. Many themes overlap as they are complementary in their objectives – this makes the CNP more efficient in its delivery but also ensures a holistic approach is taken when implementing climate specific initiatives.

RBG Climate Theme	Theme Descriptor
1. Buildings	Retrofitting existing buildings to consume less energy, save carbon and money
2. New Development	Ensure newly constructed buildings are low carbon and are of quality environmental and social design
3. Transport	Reduce transport emissions
4. Energy Supply	Renewable energy generation and consumption
5. The Circular Economy	Reduce waste sent to landfill and reduce consumption of natural resources
6. The Natural Environment	Natural and regenerative solutions to climatic stresses, preserving our beautiful green spaces
7. Empowering Wider Change	Develop partnerships and empowering our communities to develop new projects, initiatives and actions that reduce carbon emissions

Table 1

Section 6 will assess the progress of each climate theme, covering both Operational and Borough emissions, will be structured as follows:

- Theme Headline: key summary information on the theme’s aims.
- Progress: Operational and Borough achievements through theme delivery

- Our Key Asks of Others: Areas for further action, requirements from public and government.

Background – Reporting Periods and Programme Delivery

We cover both the Council’s own operational emissions and the borough’s emissions under these key themes. For operational emissions we report the emissions for the financial year 2022/23 and provide an assessment of the progress made. This uses the most up to date data we have recorded. For the borough we report the 2021 calendar year emissions data. 2021 data is the most nationally recent available data as there is a reporting time lag of about 18-24 months as emissions are verified. This is further covered in the methodology section below.

This document is the second-year monitoring report for both operational and borough emissions. This current iteration does not go into the same detail as the previous first year review, which required a full assessment of emissions progress in all areas of the CNP’s delivery. This report therefore serves to update stakeholders on emissions progress and does not take a systematic review of the CNP as the previous year did. The second climate action plan is due to be published imminently and outlines overarching strategic objectives up to 2030. This sets a long-term strategic view where the Council knows that continuous action is required in these emissions sectors year-on-year. These strategic objectives are further broken down as interim actions for delivery up to 2025, enabling a focus around specific project delivery that enables these longer-term objectives. Where possible we will always report on emissions saved (actual or estimated), cost savings and projections against our 2030 target.

The next full review of the CNP is therefore expected to be published in winter 2025, once these interim actions have been completed. The Council will continue to publish its emissions reports (such as this one) in the interim years prior to this review. The CNP programme overview is summarised in Figure 1. below.

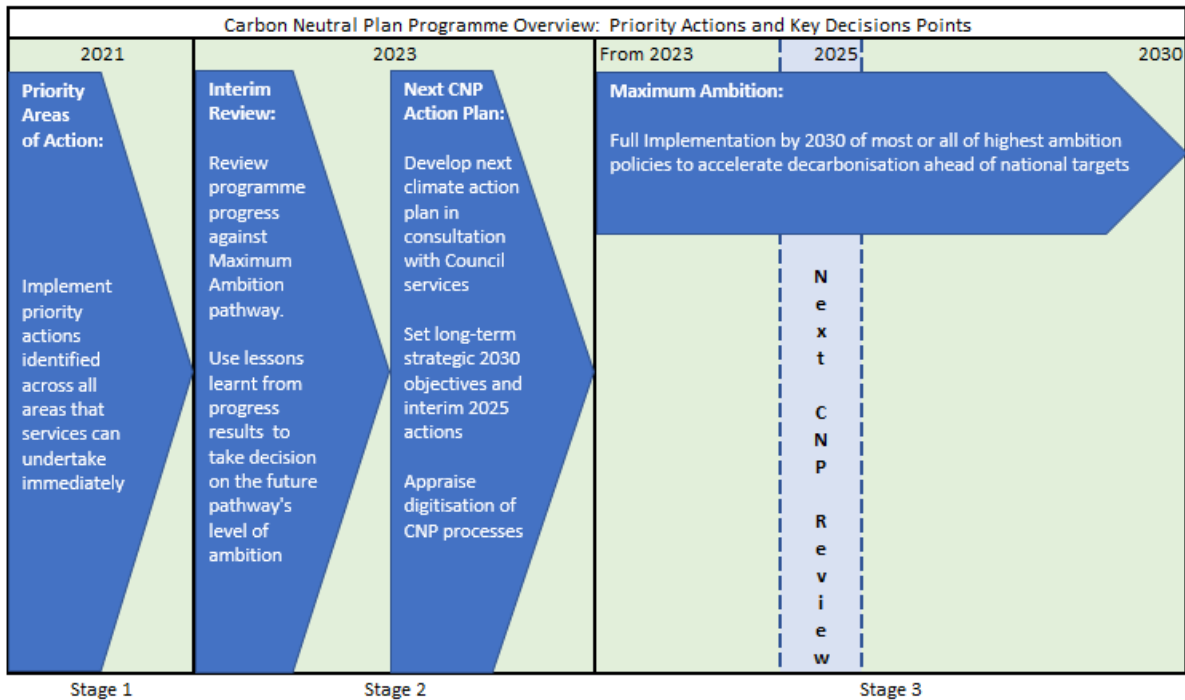


Figure 1

Section 2: Methodology

The Greenhouse Gas Protocol (GHG Protocol) provides a standard methodology for businesses and cities to report their emissions. This approach categorises emissions into “scope 1” (emissions released on-site from energy use, usually gas or transport fuel) “scope 2” (emissions released off-site from energy use, typically from generating electricity) and “scope 3” (indirect emissions from everything else an organisation uses, purchases or sells).

Although not technically considered a part of the Council’s operational emissions; we have included Council-owned homes and its maintained schools as sectors in which we can lever influence over. This goes beyond our reporting requirements but demonstrates our strategic commitment to reducing emissions in all possible areas. These are covered in further detail in table 3 below.

This methodological approach to borough emissions is summarised in Figure 2.

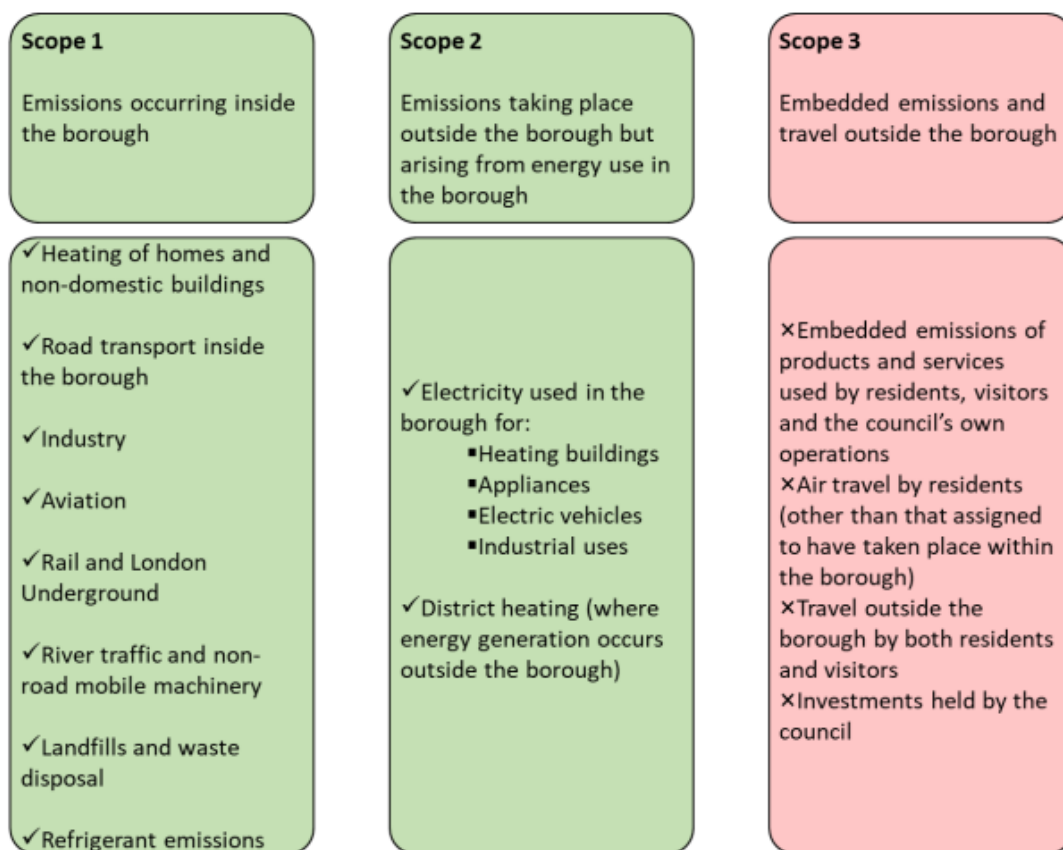


Figure 2

We review the actions agreed and undertaken for the **period of 2022/23 for operational emissions** and provide an assessment of the progress made. This uses the most up to date data we have recorded. However, at the time of writing, the datasets for **borough emissions have only been released for the calendar year 2021**. This is an industry standard as the Department for Energy Security & Net Zero (DESNZ), formerly known as the Department of Business, Energy & Industrial Strategy (BEIS), typically release national data 18 – 24 months *after* the reporting year-end (as it takes time to verify the changes in emissions levels). Furthermore, the basis on which the data is compiled has changed as information capture techniques have improved. This means previous years’

data must be recast and, therefore, **previous years’ reports cannot be directly compared with this report, figures are instead updated to reflect the most recent datasets which supersede all previous versions.**

Consequently, there is a discrepancy in the reporting periods between operational emissions and the borough emissions of this report: our operational emissions activities are recorded for the financial year 2022-2023; and the borough emissions for 2021 calendar year. We contextualise the progress of these emissions by providing data from previous reporting periods. This reporting approach is summarised in the table 1 below.

	OPERATIONAL EMISSIONS	BOROUGH EMISSIONS	Comments
Historic Reporting periods	Baseline: FY 16/17 FY 2019/20 FY 2020/21 FY 2021/22	Baseline: Calendar Yr. 2015 Calendar Yr. 2019 Calendar Year 2020	These previous reporting periods are included to provide context to the annual changes in emissions levels.
Reporting period for Second CNP Emissions Report	FY 2022/23	Calendar Yr. 2021	The 18-24 month lag in borough data cannot be avoided. Where relevant, we have made it explicit that reporting activity in the borough is not comparable to similar activities reported within the operational emissions section. Borough initiatives conducted in FY 22-23 are estimated and do not have bearing on 2021 data; but will be reviewed in subsequent annual reports.

Table 2

Section 3: Summary of Achievements and Emissions Progress

Summary of achievements

- Investment in Council corporate estate, retrofitting 28 buildings, saving 750 tco2e per annum
- Investment into Council owned homes: Over £20m retrofitting programme over 600 properties
- Successful PSDS 3b funding: approximately £1.9m secured in to retrofit our maintained schools - achieving 300 tco2e savings per annum
- Over 600 additional trees planted this year
- Phase 2 (2022-2026) of the Greenwich Builds programme is underway, with potential delivery of up to 1000 new zero carbon homes.
- £3.1m funding secured to deliver key priorities in our Transport Strategy
- Grant funding secured for a borough-wide heat network Detailed Project Design

- Successfully implemented our fortnightly domestic refuse collection services
- The Repairs and Investment team delivered energy efficiency measures to over 1000 households.
- Support to circular economy initiatives has mitigated 37.4 tco2e and saved residents approx. £138,000 in new item purchases.

Summary of Operational Emissions

The first year review provided a solid foundation of RBG's operational emissions and improved on the original emissions baseline through the inclusion of better data. Recorded data has been collected from the services and subsequently calculated into carbon emissions. Where scope 3 data was available, it was included to reflect our ability to influence these emissions – such as paper consumption and T&D losses. Given this continuing data refinement, it is not possible to reliably compare total in-house emissions reported in the baseline because the increase in emissions from the low baseline evidence improvements to data collection, rather than an increase in emissions.

Better data scrutiny and the onboarding of additional scope 3 emissions demonstrates we are committed to improving our monitoring, reporting and mitigation of the emissions categories within our ability to lever influence.

Operational emissions are summarised in table 3 and figures 3 and 4 below. As stated above, we provide the emissions from the previous reporting periods to contextualise the progress made in our second year.

Our operational emissions decreased 15% (3.0 ktco2e) compared to the previous 2021-2022. **Our current 22.9 ktco2e operational emissions are 8.1 ktco2e (26%) lower than 2019/20**, which is the first reporting year with full data and, for practical purposes, can be considered the proper CNP baseline.

Figures 3 and 4 show our operational emissions trajectories: it provides a forecast based on our previous reduction rate (Current Trajectory) and forecasts the emissions reduction required to reach to zero emissions (Required Trajectory). These trajectories are provided for both operational emissions that include and exclude our Council owned housing stock. In all cases, the trajectories are for illustrative purposes to contextualise the scale of mitigation by 2030. In reality, emissions may go up before they go down. For example, construction emissions associated with the installation of renewable systems may result in an overall increase short term only to drop in subsequent years as emissions are offset due to onsite generation.

RBG Carbon Neutral Plan – Second Year Emissions Report

CNP Operational Emissions Progress									
	Previous Reporting Periods				Current Reporting Period				
	16/17 Baseline Year Emissions (ktCO ₂ e/yr)	2019/20 Emissions (ktCO ₂ e/yr)	2020/21 Emissions (ktCO ₂ e/yr)	2021/22 Emissions (ktCO ₂ e/yr)	2022/23 Emissions (ktCO ₂ e/yr)	Annual ktco2e Change	Annual Percentage change	% of total emissions	
Corporate	6	8.4	6.2	6.5	5.8	-0.7	-11%	25.2%	
Temporary Accomodation		8.5	8	8	7.3	-0.6	-8%	32.0%	
Schools	0.14	6.7	5.2	6.13	5.7	-0.5	-8%	24.7%	
Unmetered Supply (Street lighting etc.)	4.8	4	2.7	2.6	1.1	-1.5	-57%	4.9%	
Fleet		3.5	2.4	2.7	2.4	-0.3	-10%	10.5%	
Plant Machinery			0.074	0.06	0.01	-0.049	-84%	0.0%	
Office Paper Use				0.01	0.01	-0.003	-22%	0.0%	
Transmission and Distribution Losses				0.86	0.57	-0.3		2.5%	
Total (tCO₂e/yr) excl. Council Owned Homes	11	31	25	26.9	22.9	-3.9	-15%	100%	
Council Owned Homes	Not Recorded	65	63	61	61	-0.003	-3.6%		
Total (tCO₂e/yr) incl. Council Owned Homes	11	96	88	88	84	-3.95	0.0%		

Table 3

RBG Carbon Neutral Plan – Second Year Emissions Report

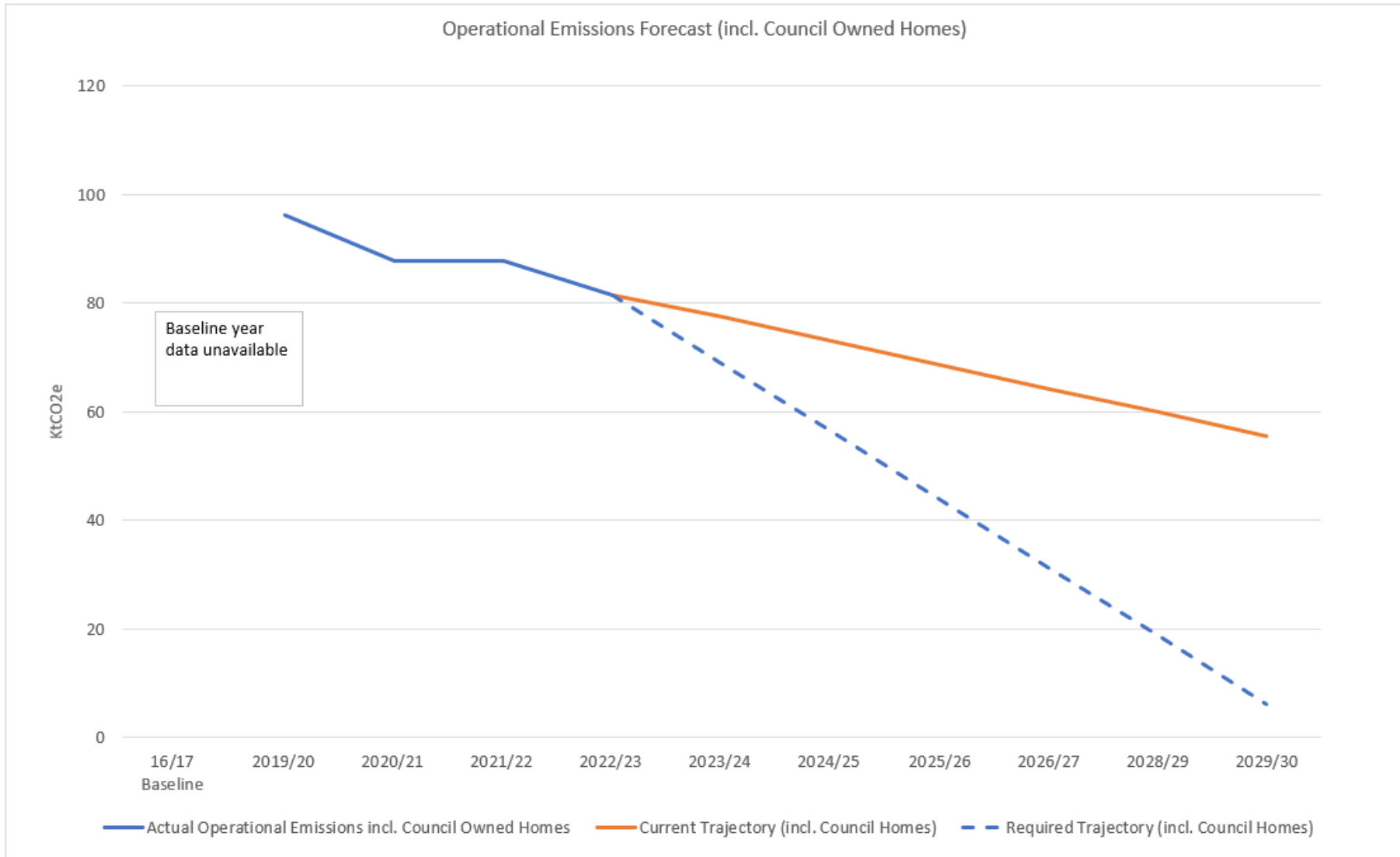


Figure 3

RBG Carbon Neutral Plan – Second Year Emissions Report

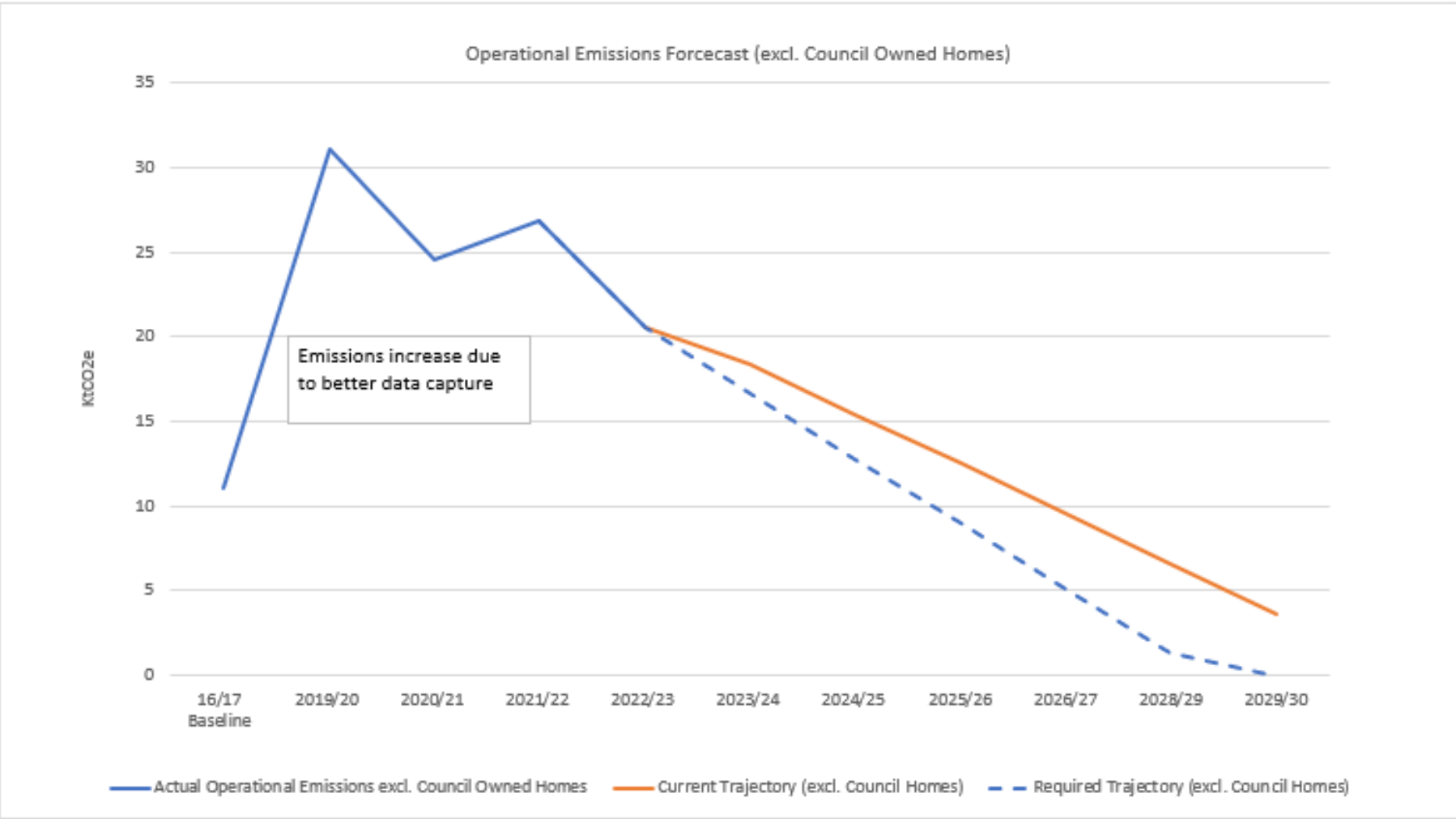


Figure 4

Summary of Borough Emissions

Table 4 and Figure 5 show the borough emissions by sector. Homes continue to make up the largest emissions sector across the borough. As expected, there was an increase in overall borough emissions in 2021 as the economy opened up after the several national lockdowns due to Covid-19 in 2020 – of which Workplace emissions rose most significantly. This experience aligns with the majority of local authorities as emissions increased in 358 out of the 374 councils in the UK (96%). The only region to reduce its emissions since 2020 was the North East, down 1.4%, mainly due to a fall in industrial emissions. This is also consistent with the increase in overall UK emissions in 2021, which increased by 5% - again largely due to COVID-19 restrictions easing and colder temperatures increasing the use of heating in buildings.

Regionally, the largest overall increase in emissions since 2020 was seen in London (up 9.0%), this was largely due to an increase in transport emissions following the rise in road traffic. The rate of increase also differs between outer-London and inner-London Boroughs, with outer-London boroughs seeing larger emissions increases in areas such as transport than their inner-London counterparts. Greenwich has seen a lower increase in emissions (6%) than the regional average (9%).

	Baseline - 2015	2019	1 st Year - 2020	2 nd Year - 2021		
	kt CO2eq	kt CO2eq	kt CO2eq	kt CO2eq	% of total	% change from previous year
Homes	349	291	288	297	41%	3%
Workplaces	266	213	194	216	29%	11%
Transport	244	257	210	220	30%	5%
Total	859	761	691	734	100%	6%

Table 4

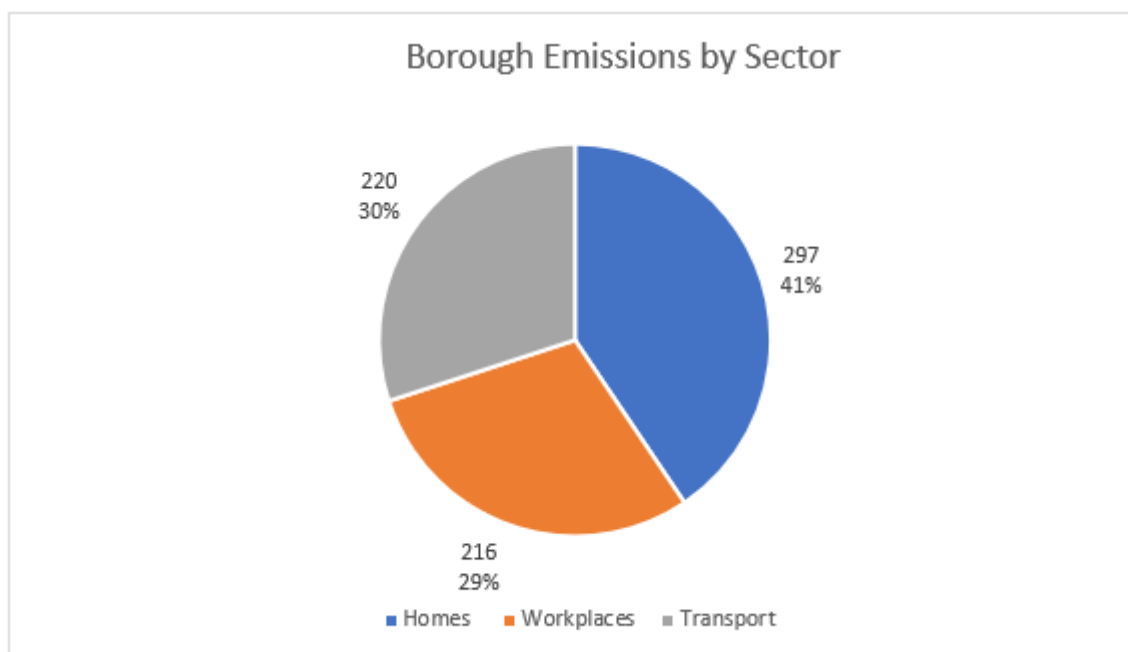


Figure 5

Appendix 3 – Carbon Neutral Plan – Second Year Emissions Report

Figure 6 shows the estimated borough emissions trajectories based on our current and historic progress. This trajectory is compared to the emissions pathways outlined in the Evidence Base (2030 Baseline and the Maximum Ambition Scenarios). The borough is therefore on track to outperform the baseline scenario but currently falls short of the maximum ambition scenario. We are therefore mindful that whilst we continue to make progress, we are dependent upon the national policy such as the acceleration of grid decarbonisation and further government funding for retrofit schemes if we are to meet our targets. Readers should also note that the emissions decrease from 2019-2020 and the increase from 2019-2020 are not considered “business as usual” years and it will require further annual reporting to fully assess the performance due to such disruptions over the past few years.

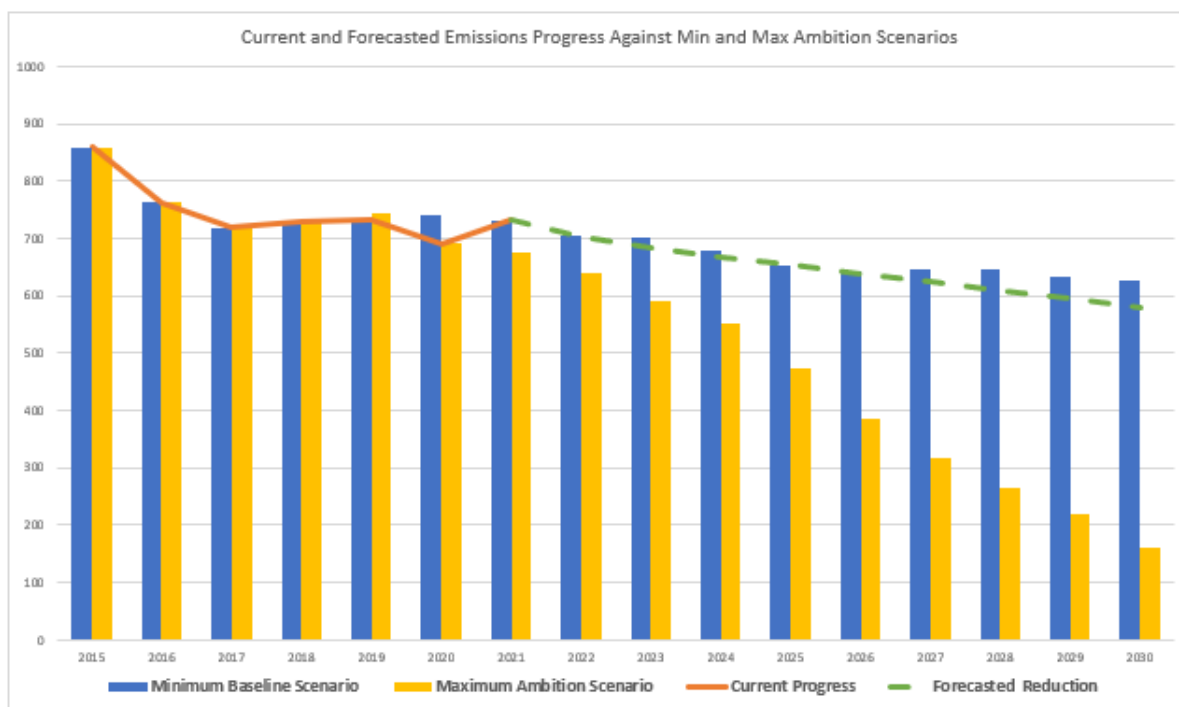


Figure 6

The borough’s population has also grown by approximately 4000 (1.3%) meaning total borough emissions figures are not fully reflective of the borough’s performance. In this regard, it is better to show progress on an emissions per capita basis, which is summarised in Figure 7. RBG has lower per capita emissions (2.7 tco2e) than the London average (3.1 tco2e) and significantly below the national average (4.8 tco2e). When taking the *per capita* emissions metric, RBG has returned to the pre-pandemic (2019) figures.

Appendix 3 – Carbon Neutral Plan – Second Year Emissions Report

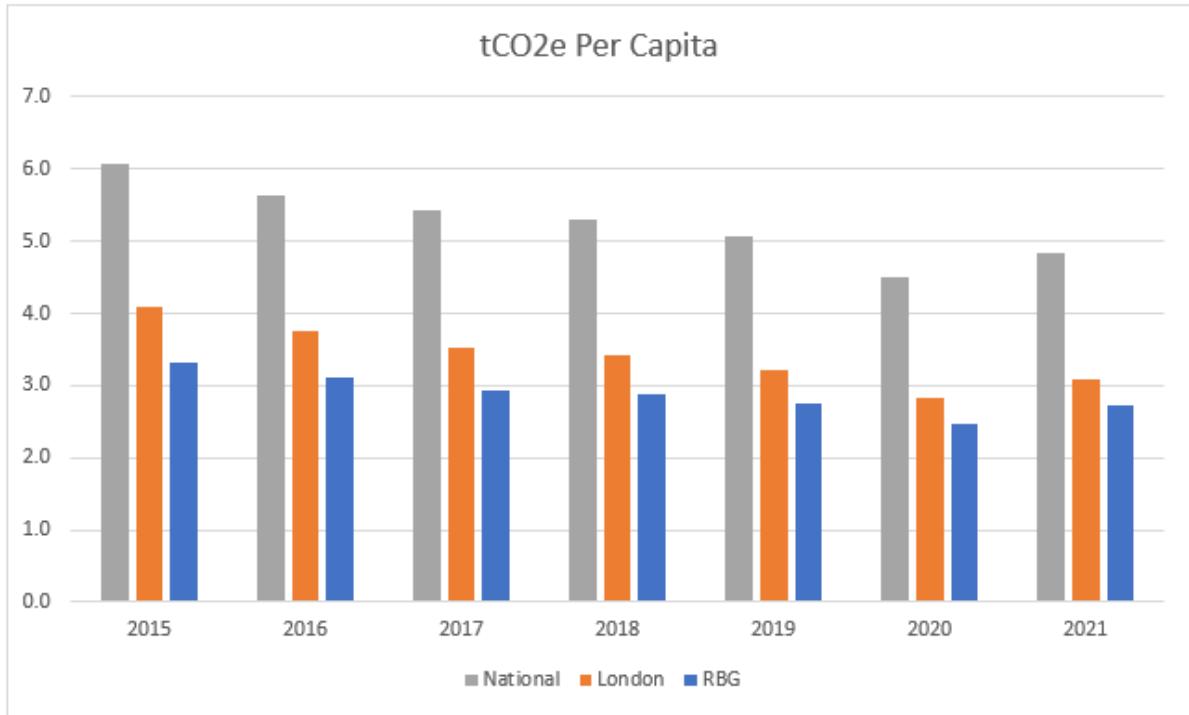


Figure 7

Section 4: Summary of Challenges

There are a number of external historic, current and anticipated challenges which have and will continue to impact the delivery of the CNP's objectives.

1. National and Regional Policy

In 2018, the Mayor of London published the [London Environment Strategy and Zero Carbon London: A 1.5°C Compatible Plan](#), which presented a range of energy system scenarios for London consistent with a 2050 Net Zero target. At the time of publication of the 1.5°C Plan, the UK's ambition was to achieve an 80% reduction in emissions by 2050. Since then, both national and local climate ambition has increased. At a national level, the UK has committed to reach a 68% reduction in emissions by 2030 (relative to 1990 levels) and to reach a legally binding target of net zero emissions by 2050. The Mayor has committed to bring forward London's net zero target from 2050 to 2030. Like most London's local authorities, we have followed suit. We were explicit in our carbon neutral plan that a 2030 target represents a substantial increase in ambition relative to a 2050 target and will require action at a London-level in a timeframe that goes beyond that which is supported or funded at the national-level.

The Government unveiled its [plans to decarbonise the UK power system by 2035](#), with a focus on building a secure, home-grown energy sector that reduces reliance on fossil fuels and exposure to volatile global wholesale energy prices. This brings forward, by 15 years, the government's commitment to a fully decarbonised power system. Although bringing this ambition forward is clearly good news, it does not align with our own 2030 carbon neutral target, and this has been exacerbated by 2 years' worth of covid disruption.

The latest changes to the government's green commitments, that may prompt us to question whether we are a nation committed to achieving net zero emissions, included a delay on a ban of new diesel and petrol vehicles to 2035, an exemption to phase out fossil fuel boilers by 2035 pushed back from 2026, and the delay of changes to Energy Performance Certificates for domestic properties. Despite this, the government has pledged the party's commitment to the 2050 target and has promised to set out the next stage in their "ambitious environmental agenda" at the upcoming COP28 conference. However, since discussions and pledges that take place at COP28 may take time to become a reality, the rollback on green measures stands to amplify uncertainty for businesses and potentially knock industry, local government and business's confidence and momentum in delivering climate action.

2. Covid

Councils are doing remarkable work to address the challenges brought by COVID-19. We have seen the local government sector pool its resources, respond to new problems with innovative solutions, as well as recovery and renewal. The same approach can be taken in tackling the climate crisis. The national economy has suffered unprecedented shocks and has impacted the Government's ability to continue to fund certain services, these impacts are significant: the lack of funding received from Transport for London (TfL) over the past two financial years has directly affected the delivery of the CNP. This is because TfL itself had lost significant revenue from reduced ticket sales due to social distancing restrictions. Household retrofitting programmes such as the Local Authority Delivery (LAD) schemes are due to be discontinued at the end of 2023. Economies also experienced further issues as they emerged from lockdown. As countries began to recover from the pandemic, demand for gas started to increase again and could not be met due to a shortage in supply, causing gas prices to increase in 2021.

3. Energy Crisis

An energy crisis happens when there isn't enough supply to meet demand and it becomes more expensive to buy wholesale gas and coal. This can happen for a variety of reasons including wars, overconsumption, market manipulation, tax hikes, regulation of the energy sector, strikes, problems at the oil refineries and ageing infrastructure. The UK is currently experiencing an energy crisis because of 'a perfect storm of market forces' that has hit the sector

- Working from home during the pandemic increased demand
- Natural gas and coal prices reached record highs due to global competition
- Extreme weather conditions have caused problems with supply
- Energy regulator Ofgem increased its price cap that limits what suppliers can charge
- Infrastructure of energy supply has required maintenance – further reducing delivery of supply
- Russia invaded Ukraine (they supply around 12% of the world's gas)

Whilst expensive energy rates will make cases for investment more attractive (due to a shorter payback period), the increase in our energy bills will severely impact our available capital to invest in the CNPs actions.

Recent analysis also indicates that the crisis is set to continue - bills expected to rise by 5% from January after analysts predicted that the government's price cap could increase to about £1,930 a year for a typical gas and electricity bill. Unstable wholesale energy market, coupled with the UK's reliance on energy imports, makes it inevitable that energy bills will rise from current levels. This leaves households facing yet another winter with bills hundreds of pounds higher than pre-pandemic levels.¹

Government assistance in deal with price shocks can only go so far as it cannot overcome the effects of a volatile international energy market on bills. It is only by continuing our transition away from fossil fuels, towards secure and sustainable domestic energy sources that we can reduce our exposure to such international drivers and, in turn, stabilise our energy prices.

4. Resource Implications and Access to funding

Covid and the subsequent energy crisis has inevitably affected our ability to invest in carbon saving initiatives and the delivery of the CNP. There is currently not as much money available as was assumed when the CNP was drafted – either from our own internal funding streams, GLA regional funding, or the from the impending closure of national grant funding. Furthermore, given the recent political and economic disruption at the national level, we are expecting austerity to make a return to the public sector. There is currently no indication what services are likely to be cut but we expect any cuts will either have a direct or indirect impact to the deliverability of the actions outlined in the action plan.

5. Supply Chains

Businesses around the globe are facing supply chain bottlenecks as economies continue to emerge from recent lockdowns. However, the situation in the UK has worsened on account of Brexit, which has caused major supply chain disruptions. Over the recent months, there have been delayed deliveries, stock shortages, and increased prices. A quarter (26%) of medium and large firms have been affected by supply chain disruption due to Brexit and coronavirus, according to ONS figures. Almost one-third (30%) of businesses in manufacturing and wholesale and retail trade reported being impacted by global supply chain disruption. The solar panel market has been impacted from

¹ [Cornwall Insight release price cap forecasts for 2024 - Cornwall Insight \(cornwall-insight.com\)](https://www.cornwall-insight.com/news/cornwall-insight-price-cap-forecasts-2024)

supply chain disruptions due to reduced manufacturing output, increased production costs, stock shortages and a post-covid shipping industry.

Section 5: Progress by Climate Theme

Buildings

There are over 120,000 homes and over two million metres squared of non-domestic floor space in the borough. Heat and electricity used in buildings in the borough accounted for 64% of emissions in 2021. Emissions from homes alone were 41% of the borough's total. Reducing these emissions will involve a combination of:

- making buildings more energy efficient
- replacing fossil fuel heating systems with low carbon alternatives
- deployment of renewable energy and district heat networks
- behavioural change – operating our buildings more efficiently

Operational

Council owned homes constitutes 8% of the borough's emissions but are included as part of RBG's operational emissions given the Council's energy performance responsibilities. The Council is investing over £20m to improve over 600 homes. In 2022/23 the Repairs and Investment team delivered a Housing Capital Programme totalling £32.8m, against a £27.6m ASR (Annual Spend Requirement), carrying out much needed and overdue works benefitting homes. These projects were delivered despite a challenging year, with Contractors still suffering from an industry wide supply problem and general economic difficulties. 481 homes benefitted from more efficient boiler replacements, 196 had their windows replaced and 405 benefitted from improved communal heating services.

Temporary accommodation now accounts for 32% (7.3 ktco2e) of RBG's operational emissions, a decrease of 600 tco2e on the previous year. This is the largest source of our operational emissions. The domestic sector is therefore a clear area of priority given the co-benefits (health, financial) of reduced energy bills for residents.

Corporate property stock accounts for 25% (5.8 ktco2e) of RBG's operational emissions (excluding Council homes), down by 700 tco2e on the previous year, an 11% decrease.

RBG successfully applied to the Public Sector Decarbonisation Scheme (PSDS) to provide the capital to improve its maintained schools. Schools account for 24.7% (5.7 ktco2e) of RBG's emissions when excluding Council owned homes, a 500 tco2e decrease. The PSDS grant, totalling £1.9m, covers a range of decarbonisation measures, such as air source heat pumps (ASHPs), photovoltaic panels (PV), LED lighting upgrades and valve/pipe insulation. Annual savings are estimated at £36,000 and 300 tco2e.

Borough

The largest share of emissions in the borough by sector is homes (41%) and estimate that some 14,285 (12%) households in the borough are in fuel poverty. It is broadly accepted that retrofitting existing housing stock is set to be the costliest of the climate measures and is also high risk in

Appendix 3 – Carbon Neutral Plan – Second Year Emissions Report

deliverability. RBG facilitated the Local Authority Delivery Scheme – which supported over 150 properties with substantial energy efficiency upgrades such as cavity & external wall insulation, solar PV, air source heat pumps, averaging about £10,000 of investment per low-income household.

Our fuel poverty outreach service supported 272 low-income households with a total estimated saving of was 715 tco2e.

Industry and commercial CO2 emissions are responsible for approximately 29% of the borough’s carbon footprint and had increased in 2021 due to the re-opening of the economy after lockdown. We estimate 2,299 jobs that could be created per annum from a household net-zero retrofitting programme up to 2030.

Our Key Asks of Others

Recent backsliding on national policy has resulted in lost progress – this includes the delay in ban to gas boilers in the domestic sector and the energy performance requirements in the private rented domestic sector. Although some progress has been made in the non-domestic private rented sector as minimum energy efficiency standards will require premises to be rated EPC B by 2030, this is currently insufficient to meet national decarbonisation targets. RBG therefore call upon the Government to do more in funding schemes such as the PSDS and LAD, whilst also providing stable, long-term policy that is aligned with climate science.

New Development

Low-carbon development is a holistic approach to design and construction that comprises evolving, energy-efficient, and environmentally friendly practices used to build a better future. An additional 30,000 homes are expected in the borough by 2030, with the potential to add significant new carbon emissions if the strictest emissions standards are not applied. Reducing emissions from new buildings is generally a cost-effective opportunity since any new builds not built to a zero-carbon standard will ultimately require more costly retrofitted measures.

Operational

Since 2018 the Council was again able to build Council Homes – known as “Greenwich Builds”. The initial programme (2018-2022) is on course to deliver around 790 new homes – most of which are zero carbon and all with achievements of upwards of 90% above the Part L baseline. Phase 2 (2022-2026) is also underway with the first 16 sites having been designed and submitted for planning approval with a further 12 sites in feasibility stage. This second phase will deliver around 1000 new homes. It should be noted that due to build cost inflation and the complexity of some of these sites there are serious viability challenges.

Borough

We have improved the emissions data capture through our planning processes. The total recorded operational carbon prevented due to local planning policy criteria is approximately 9.7 ktco2e per annum, or 293 ktco2e over the developments’ 30-year lifespan. These emissions are likely to be higher and we are working to record and monitor the planning data all in one place. These emissions are based on completed works in the calendar year 2021.

Our Key Asks of Others

The Council engaged with residents on its “Big Themes” planning consultation over the 2023 summer. The results of this are being analysed and we are now gathering evidence to support the drafting of the new Local Plan, which will set the policy landscape for the borough’s low carbon development up to 2030 and beyond. Residents are invited to attend a “call for sites” next year to identify potential development sites. We expect to consult again with residents on the draft Local Plan in Autumn next year.

Transport

We’re committed to delivering a world-class transport network, one which enables our residents, businesses and visitors to make the most of all the opportunities offered throughout Royal Greenwich, London and the wider region. Our transport system will be one that our residents and communities can be proud of, providing the safe, reliable and future-ready connections needed for living, learning, working and playing. It will be easy for everyone to walk, cycle or to use public transport, helping us all to be healthier, tackle our carbon emissions and manage congestion on our roads.

Operational

As detailed in table 5, Council fleet emissions are down by 10% (0.3ktco2e) on the previous year to 2.4 ktCO2e which includes the emissions arising from the 30 EVs in the Council’s fleet and our contractors’ fleet. This reduction is in part attributed to a less carbon intensive diesel fuel blend. With the electric charging infrastructure at Birchmere Depot already operating at capacity, the transition to an entire EV fleet will require a significant upgrade to the electrical infrastructure presenting an opportunity to also electrify the heating systems at the Birchmere premises. The council is committed to achieving 100% zero tailpipe emission fleet by 2030 and is still on target to achieving this goal, with colleagues from across the Council involved in a project to drive this key work forward.

Borough

Transport emissions are the second largest category of emissions (30%) behind Homes. We adopted a new borough-wide Transport Strategy in October 2022, covering issues such as street safety and accessibility; encouraging low/zero carbon and healthier travel alternatives; improved borough connectivity and cleaner air. The Transport Strategy provides a medium to long-term approach to meeting the Borough’s transport vision. We will require further emissions data to measure the success of these strategies.

We will be investing £3.1 million to improve our transport network. The funding, including £1 million of the Council's own budget and £2.1 million from Transport for London (TfL), will support the delivery of a number of key transport priorities over the next year, identified in the Council’s new Transport Strategy, including:

- improvements to pedestrian and cycle infrastructure to encourage people to walk, cycle and wheel more;
- tackling traffic and improving air quality by introducing traffic management schemes in neighbourhoods where residents have reported serious congestion and safety problems;
- introducing 20mph speed limits, Controlled Parking Zones (CPZs) and School Streets in priority areas;

Appendix 3 – Carbon Neutral Plan – Second Year Emissions Report

- implementing emissions-based parking charges to reduce emissions and encourage more sustainable travel; and
- delivering free cycle training and a ‘try before you bike’ scheme, run with Peddle My Wheels.

Our Key Asks of Others

Support from the District Network Operator (DNO) will remain essential in upgrading the Birchmere Depot for further fleet electrification. Much of our work around delivering safe and sustainable transport is TfL funded. Several projects were placed on hold throughout the Covid-19 pandemic due to the loss of revenue experienced by TfL but additional funding to RBG has returned. This includes £2.1 million which will support the delivery of a number of key transport priorities over the next year, identified in the Council’s new Transport Strategy, including:

- improvements to pedestrian and cycle infrastructure to encourage people to walk, cycle and wheel more;
- tackling traffic and improving air quality by introducing traffic management schemes in neighbourhoods where residents have reported serious congestion and safety problems;
- introducing 20mph speed limits, Controlled Parking Zones (CPZs) and School Streets in priority areas;
- implementing emissions-based parking charges to reduce emissions and encourage more sustainable travel; and
- delivering free cycle training and a ‘try before you bike’ scheme, run with Peddle My Wheels.

Energy Supply

The national electricity grid is not predicted to be entirely fossil fuel free by 2030. This means that even under a highly ambitious scenario for Royal Greenwich, in which there is widespread electrification of heating and transport, there would still be significant emissions associated with that electricity use. While changes to the national electricity grid ultimately rely on national policy, action can be taken locally to roll out decentralised, sustainable energy, and to develop smart approaches.

Operational

All progress in the energy supply theme is assessed through the Borough analysis as we are driving work through the focus of local energy generation and supply to the borough – of which our corporate estate will benefit from.

Borough

Energy demand reductions are generally the most cost-effective way to reduce carbon emissions with less systemic or behavioural change required. However, supply is essential to ensure that what is consumed is sourced from low/zero carbon sources. The Council is committed to exploring the development of decentralised heat network(s) related to areas of high potential. This includes appraising the opportunity for an overall transmission main from west of the Borough to the existing areas of high demand. The Council has secured funding to further develop the technical, financial, commercial, and legal aspects of the district heat network opportunity and intends to develop an outline business case to generate interest in the market.

Our Key Asks of Others

The Council is already undertaking stakeholder engagement with potential heat off-takers, partners and those expected to have an input into the studies and/or final design. It is an incredibly exciting opportunity and RBG will require enthusiasm and committed engagement from all stakeholders. We will continue to monitor for additional funding opportunities from the government to both enhance the feasibility studies and inform the procurement routes, but also to identify capital funding in the long term.

Circular Economy

The circular economy is a “cradle-to-cradle” system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources.

Operational

Our Parks team circular green waste practises have saved approximately 44.5 tco2e of emissions. The Council has set up a Circular Economy Matchmaker board, which has representation from the Waste, Sustainability and Business teams. The aim of the board is to promote the CE to businesses and residents across the borough, with the ultimate aim to embed the culture of circularity as standard practise.

Borough

As part of the Towards Zero Waste service changes, we introduced a range of measures to reduce our carbon footprint in managing the borough’s household waste. This includes the introduction of fortnightly collection of general waste and the no side waste policy. There has been a drastic decrease in recorded contamination since the new three stage contamination policy was introduced in November 2022. Our total contamination rate fell from 24% in November 2022 to 13.07% in May 2023. Total waste emissions dropped by approximately 2%. The total number of households receiving waste collection services have also increased by almost 1000. Despite this increase, the municipal waste collected has decreased by 12kg per household which is not an insignificant sum when considering we offer collection services to over 120,000 households.

Between November 2022 – November 2023, our Circular Economy workshops and Library of Things kiosk have resulted in approximately 37.4 tco2e in avoided consumption emissions. This has also saved residents a total of £138,000 in new item purchases.

Our Key Asks of Others

We are keen to encourage all our residents and businesses to consume more sustainably. The best way to do this is to prevent unnecessary purchases occurring in the first place, but we also encourage people and businesses to buy/manufacture locally (which grows the local economy); increase the reuse and recycling of the products that are bought; and to consider leasing instead of purchasing items through services such as the Library of Things.

Natural Environment

The Council owns and manages approximately 554 hectares of parks and green spaces that makes up most of green spaces within the borough. We plan to make changes which will increase the climate change resilience within our local green infrastructure and reduce emissions of our maintenance operations. The storage of carbon by trees and carbon-rich ecosystems can play an important role in tackling climate change. It can also help us to adapt to the changing climate, providing co-benefits of flood protection and temperature regulation within cities.

Operational

We have surpassed our tree planting target for the financial year. For the planting year we have planted 676 trees, the vast majority of which are in parks. More trees will follow on streets and other amenity areas for completion by the end of March 2024 when the planting season ends. The estimated total carbon saved by the end of the decade is 75 tco2e.

Borough

The natural environment delivers benefits beyond carbon sequestration including healthier living, increased biodiversity, air quality improvements, climate adaptation measures such as flood prevention and overheating. It also adds hedonic value to property prices as living closely to green spaces is highly desirable in London.

Our Key Asks of Others

We are anticipating the eventual implementation of the Biodiversity Net Gain (BNG) national legislation. The BNG criteria is a way for developers in the borough to contribute to the recovery of nature while developing land. Importantly, it is making sure the habitat for wildlife is in a better state than it was before development and we are therefore looking forward to working with ecologists and developers in ensuring the Royal Borough Greenwich is a full beneficiary of the scheme.

Empowering Wider Change

The Empowering Wider Change theme underpins the preceding themes and can be regarded as a set of capacity building measures and activities that *enable* the future reduction of carbon. The activities in this section empower business, council staff and young people to take on an active emissions reduction role. They are united by their “second order” influence – council actions here are facilitating others to make emissions reductions. This also includes educational and behavioural change initiatives and feasibility studies. Although less tangible carbon reductions can be measured through this theme, it is an incredibly powerful tool to help communities and individuals feel empowered through climate action. Where possible, we make estimations on carbon reduction figures and take a conservative approach so as not to over-estimate our success.

Operational

Most of our Empowering Wider Change actions are related to reducing borough emissions through community capacity building. However, we continue to acknowledge the areas where our decisions can reduce carbon emissions, including our procurement processes and pension investments. As a London Borough we have relatively strong buying power which can lever influence over our procurement and investment decisions. We have also established governance processes which require Officers to submit a climate impact assessment when submitting decision reports. We are

Appendix 3 – Carbon Neutral Plan – Second Year Emissions Report

also developing internal staff training materials with the aim to educate the entire RBG workforce around climate change and the CNP's objectives.

We have established a Greenwich Climate Networking Group – giving all types of stakeholders across the borough to discuss the delivery of the CNP, decarbonisation ideas and share best practise. We will structure our sessions around the 7 climate themes to generate a wide ranging, encouraging discussion around climate action.

Borough

The Council is developing partnerships and empowering our communities to develop new projects, initiatives and actions that reduce carbon emissions. Our communities include businesses, council staff and education providers, and voluntary organisations as well as residents.

We have supported our energy efficiency outreach partners in meeting the rising demand for retrofit measures and to deliver general outreach and advice on energy efficiency measures to our residents. The “Love Your Loft” scheme is a campaign to promote insulation and deliver support to residents from initial assessment through to installation. This includes employing a retrofit assessor who will be a qualified to Level 4 Retrofit Assessment and Risk Management and a Domestic Energy Assessor – ensuring expert, quality advice is provided to our stakeholders. An additional Outreach Officer experienced in delivering programmes of outreach and also hold a Level 3 qualification in Energy Awareness or Retrofit Advice has also been appointed. We are very pleased to see employment opportunities being created through our net zero aspirations.

We will also be partnering with the University of Greenwich to deliver our next Greener Greenwich Summit, planned to take in place in March 2024.

Our Key Asks of Others

We cannot achieve our climate ambitions alone and require every stakeholder in the borough to do their bit. This means people need to be the change they want to see – including being more conscientious of their consumption habits, actively attempt to reduce their energy consumption and explore healthier active travel options if able to do so.

The most important requirement we call for is for regional and national authorities to rapidly build the green economy. London needs to double the size of its green economy and over the next two years stakeholders will need to focus on building a robust evidence base for boroughs to act to support the growth of the green economy in their area and ensure a just transition including developing data and metrics to enable London to collectively track its progress and identify the right interventions. Alongside this, the theme will grow our understanding of the skills and business support needed to ensure the growth of key sectors and engage partners in developing plans to address these gaps. New models for financing and delivering climate infrastructure are needed to support to boroughs to navigate the right funding sources for their projects.

Section 6: Conclusion of Second Year Emissions Report

The Carbon Neutral Plan (CNP) outlines both The Council's and the Borough's aspirational objectives to becoming carbon neutral by 2030, in line with the scientific target necessary to limit global temperature rise to 1.50C. It requires concerted action at all levels: individuals, communities, organisations, national government and international organisations.

It is important to note that this report is not a review of the CNP policy or the climate action plan, it is a performance report to update the borough and operational emissions progress against our 2030 aspirational target. The report therefore takes a lighter touch when providing analysis compared to the first-year review.

We covered both our own operational emissions and the borough's emissions under our seven climate themes; providing a summary of the emissions by specific sources and the carbon reduction initiatives we committed to implementing in these areas. We provide actual or estimated carbon figures where possible and use qualitative evidence when we are unable to do so.

For operational emissions we review the actions agreed and undertaken for the financial year 2022/23 and provide an assessment of the progress made. This uses the most up to date data we have recorded internally. For the borough we provide 2021 calendar year emissions data, and the remedial actions taken in 2022-23. 2021 data is the most recent available data nationally as there is a reporting time lag of about 18-24 months as emissions are verified.

We follow the scopes approach to our carbon accounting, and we are continuously improving our data collection processes to better reflect the influence we have over some additional carbon emissions. Better data scrutiny and the onboarding of additional scope 3 emissions demonstrates we are committed to improving our monitoring, reporting and mitigation of the emissions categories within our ability to lever influence.

Our operational emissions have decreased by about 15% (3.9 ktco2e) compared to the previous financial year, excluding Council owned homes. The largest total drop in emissions in the built environment was the corporate property stock (700 tco2e). Temporary accommodation is now the largest source of operational emissions (when excluding council owned homes).

As expected, there was an increase in overall borough emissions in 2021 as the economy opened up after the several national lockdowns due to Covid-19 in 2020 – of which Transport and Workplaces sectors were impacted most significantly. This experience aligns with most local authorities as emissions increased in 358 out of the 374 councils in the UK (96%). The domestic sector remains the largest source of borough emissions with 41% of the total and approximately 90% of homes supplied with gas heating, forming an area of priority. The borough has a lower per capita emissions (2.7 tco2e) than the London average (3.1 tco2e) and significantly below the national average (4.8 tco2e). When taking the *per capita* emissions metric, RBG has returned to the pre-pandemic (2019) figures.

Our current trajectory is not sufficient to meet our 2030 carbon neutral target. We are therefore mindful that whilst we continue to make good progress, we are dependent upon the national policy such as the acceleration of grid decarbonisation and further funding for retrofit schemes if we are to meet our targets.