

Climate Change Board Annual Report Executive including the Guildford Borough Council Annual Emissions Report 2022/23 - 2022/23.

Annual summery report of the activities of the Climate Change Board. Including the annual carbon emissions of Guildford Borough Council.

Background:

On 23 July 2019, the Guildford Borough Council (GBC) adopted a motion to declare a Climate Emergency and committed to reducing carbon emissions from all council activities with the aim to achieve net-zero carbon across all GBC services and make the whole borough carbon neutral by 2030. GBC would work to establish borough-wide partnerships to evaluate and determine how and when Guildford Borough could become carbon neutral and promote sustainability within the borough. GBC committed to develop a clear action plan and timescale for being net-zero carbon across our Council operations.

Between 2019 and 2022, there were several difficulties in establishing the climate change programme and integrating this into service plans. The pandemic saw a pause in regular council activities and there were resource issues within the Climate Change Team. However, with the post-Covid recovery, work has moved forward to understand and reduce GBC's carbon emissions.

In November 2022, during works to develop a Climate Change Action Plan and following works to understand the carbon emissions and wider environmental issues faced by GBC and the borough, the Climate Change Board (CCB) reviewed the net-zero goals set by the Climate Emergency. The CCB agreed that the scope of the works set out under the 2019 Climate Emergency Declaration were very ambitious and likely unachievable without significant financial support and resource allocation. The CCB decided that to make significant and practical carbon emission reductions, achieving net-zero by 2030 would focus on Scope 1 (Direct emissions: Gas and Fuel use) and Scope 2 (Indirect emissions: electricity use). Because the calculations and methodology required to understand Scope 3 emissions (Shared emissions: Procurement, Contracts, and Services) had not been fully developed nationally, Scope 3 was to be reviewed and achieved when practicable but in line with National Government targets. Biodiversity and Air Quality were to be included within the Climate Emergency statement.

In February 2023 GBC adopted the GBC Climate Change Action Plan (CCAP).

Further challenges in 2023/24 have impacted the climate change programme progress; changes in organisational structure and financial issues within the council have required careful planning to progress the aims of the programme.

Progress made since 2019:

Since the initial adoption of the Climate Emergency motion in 2019, GBC has established a cross party/multi-agency Climate Change Board to oversee and steer GBC's climate response to the emergency. The CCB includes members from GBC Elected Members, the University of Surrey, Surrey County Council, and environmental organisations. A carbon emission baseline has been developed and agreed setting out carbon emission targets against those emitted in 2019 from which to measure progress. A carbon emissions trajectory has been developed to set out a pathway to

achieve net-zero by 2030. Borough-wide partnerships have been developed to decrease carbon emissions within Guildfords communities. These include links to the University of Surrey, Business partnerships through the Sustainable Business Network and local volunteer and campaign groups. The CCB has identified key areas within council operations where carbon emissions can be reduced. A holistic and ambitious action plan has been developed setting a pathway to achieve net-zero across those identified Scopes within council activities by 2030. Work across the council has successfully integrated CCAP actions into service plans and ensured that sustainability is a core principle within GBC's Corporate Strategy.

Climate Change Action Plan:

The CCAP consists of a total of 305 Actions divided into nine key areas of council operations and focus. The 305 actions are comprised of main actions and sub-actions which aim to assist in the completion of the main action. For some of the actions within the CCAP, GBC has an advisory role and rely on the organisations that are directly responsible for driving the process of achieving the goal of the Action. GBC currently administer 243 of the 305 actions within the CCAP.

Of those actions adopted in February 2023 and administered by GBC; 19 have been completed, 86 are currently in development and are progressing as expected.

Climate Change Board:

The Climate Change Board is an Executive board formed in 2019 with the overall responsibility to:

- a) monitor outcomes and strategies relating to the Climate Emergency and our Climate Change Action Plan;
- b) make recommendations to the Executive for approval, where applicable;
- c) scrutinise and support the delivery of the Climate Change Action Plan;
- d) develop partnerships with the community, businesses and other local authorities in order to co-ordinate implementation of climate change policies and projects.

The CCB meets every two months and has held six board meetings since September 2023. Two workshops and a training webinar have been held in addition to the meetings. Following the local elections in held in 2023, works have been undertaken to familiarise new board members to the Climate Change Action Plan and the current carbon emission status within GBC. The CCB has received presentations, updates and held discussions with various services including Comms, Finance, Planning Policy, and Assets to review the progress and challenges faced in reducing carbon emissions.

The CCB has developed the administration of the Board by introducing an impartial joint Chair to allow greater scrutiny of the Climate Change programme. Terms of Reference have been developed and finalised to set out the administration of the Board, roles of members, reporting structure, and key target areas from which priorities of focus can be set. These key areas are, Energy, Infrastructure, Biodiversity, and Business and Community. The board records and monitors action items via an action tracker which is reviewed each meeting with updates being provided from officers and key partners and recorded in the agenda pack.

A rolling programme of works, developed by the CCB, helps to set the agenda items and ensures that the progress of priority actions within the CCAP are reviewed, and updates and information from key services are presented to the CCB.

The CCB have hosted two workshops in addition to the regular meetings. The first, held in October 2023, looked at developing a list of priority actions from the CCAP. This list was presented and agreed by the Enterprise Portfolio Board EPB in November 2023. The second workshop held in March 2024, looked at the content and the layout for the Climate Change webpage refresh. The new GBC climate change webpages were released in June 2024. A training webinar on Climate Change Fundamentals was held in January 2024 which was available to all Councillors. The two-hour course looked at the causes and consequences of climate change on both an international and local level. The course counted towards CPD and was well received by the 14 Councillors who attended.

Prioritisation of Actions:

Due to the complexity and size of the scope of works required to achieve net-zero, a list of **30 priority actions** were developed and was agreed by EPB in November 2023.

The Portfolio Holder, Director, and the Climate Change Board reviewed the actions within the CCAP to produce a comprehensive and effective list of those actions that were achievable within the constraints that GBC were facing.

The list comprised of both **programmes** and **projects from the CCAP** and included actions that would enable several other actions to be progressed. These included looking at relevant staffing resources and integration of actions into service plans to further these programmes.

Prioritisation criteria included:

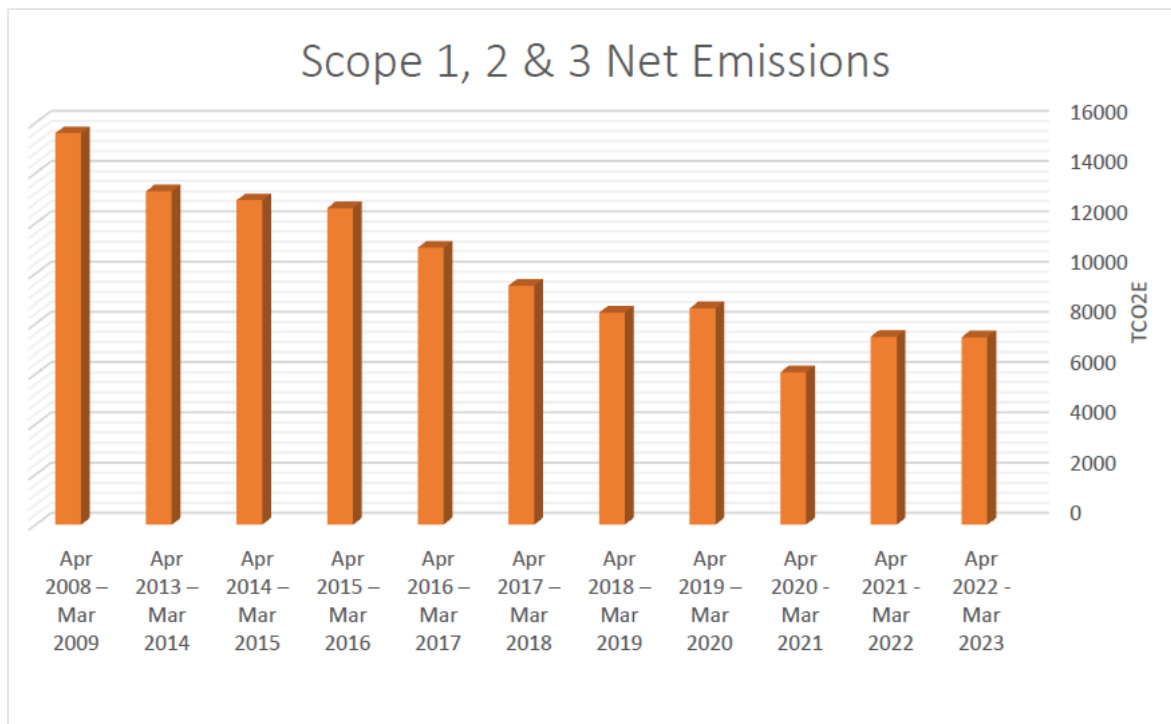
- lower or no cost?
- quickest impact?
- higher impact?
- AND/OR Strategic enabler for further action?

These actions were categorised into five key areas:

- Reporting & Service Integration
- Additional Posts
- Staffing & Asset Rationalisation
- Renewable Energy & Off-Setting
- Land Use & Biodiversity

Emissions Report 2022/23:

GBC commission APSE consultants to produce an annual emission report that records and compares the Scope 1, 2 and 3 carbon emissions of GBC operations to previous years. A baseline year of 2019 has been set to measure progress. GBC's focus on Scope 1 & 2 emissions will aim to eliminate 90% of all GBC's carbon emissions by 2030. The 2022/23 net carbon footprint emissions were 7,472 tCO₂e. Compared to the baseline year (2019/20 – 8613 tCO₂e), carbon emissions have reduced by 1141 tCO₂e, a reduction of 13%. There has been a 0.48% decrease in emissions between 2022/23 and 2021/22.



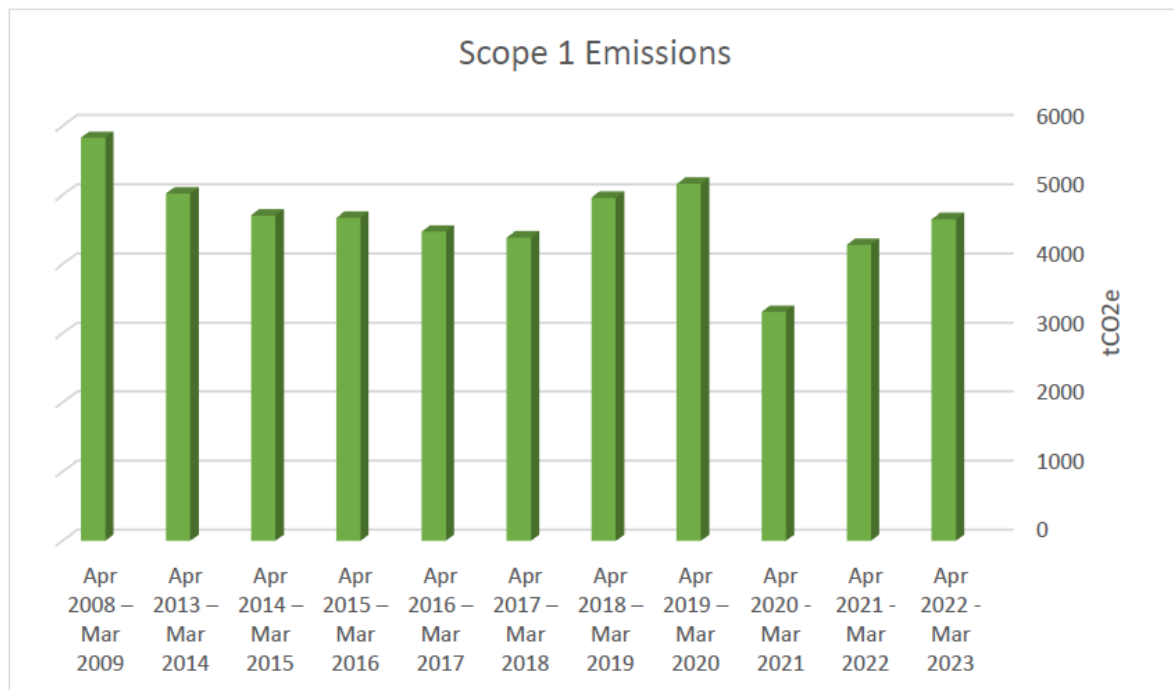
2020/21 is considered a non-standard year due to the pandemic. The reduction in emissions in 2020/21 is due to a decreased usage of the Combined Heat and Power (CHP) plant at the Spectrum Leisure Centre and a reduced use of other council owned buildings during Covid restrictions. The emissions have risen post-Covid but remain below pre-Covid levels.

GBC has been recording carbon emissions since 2008/09, these are included as a measure of the entire journey to achieve net-zero. Carbon emissions from 2008/09 to 2022/23 have reduced by 52%, or 8,123 tCO₂e.

Emission sources are broken down in the table below. Please note that 2022/23 waste and recycling figures were unavailable. Figures from 2021/22 have been used to calculate the carbon emissions.

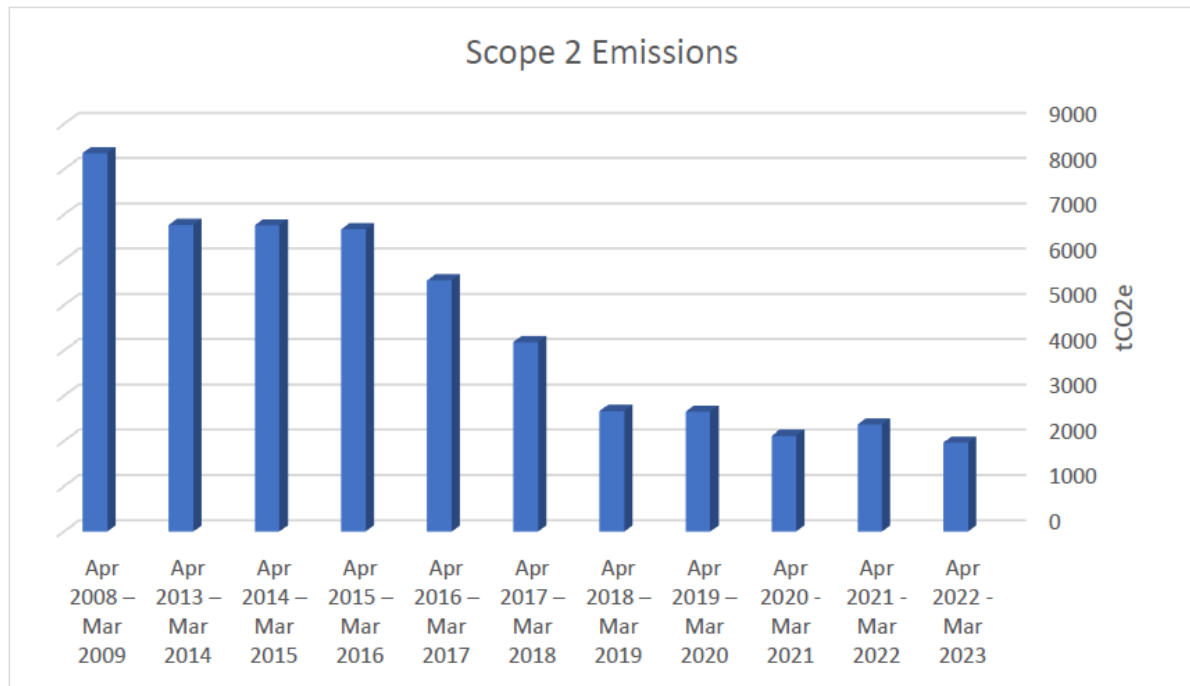
2022/23			
Emissions Source	Scope	% Split	TonnesCO2e
Natural Gas	1	44%	3,298
Council Vehicles	1	18%	1,354
Electricity	2	26%	1,964
Gas – WTT	3	7.5%	562
Electricity – Transmission & Distribution	3	2.4%	180
Business Travel	3	0.3%	20
Water Supply	3	0.1%	7
Water Treatment	3	0.2%	12
Rail	3	0.001%	0.10
General waste from council operations	3	1.0%	74
Recycling from council operations	3	0.02%	1.4
Total	-	100%	7,472

A more detailed analysis of the individual emission sources explains that Scope 1 (Gas and Fuel use) has seen a 10% emissions reduction from the baseline year with 510 tCO2e (tonnes of carbon dioxide equivalent) saved. Gas emissions have decreased from the baseline year by 309 tCO2e and emissions from fuel use in GBC fleet vehicles have decreased by 201 tCO2e.



The increase in recent years is largely due to resuming use of the CHP at the Spectrum Leisure Centre following a recovery in visitor numbers post-Covid.

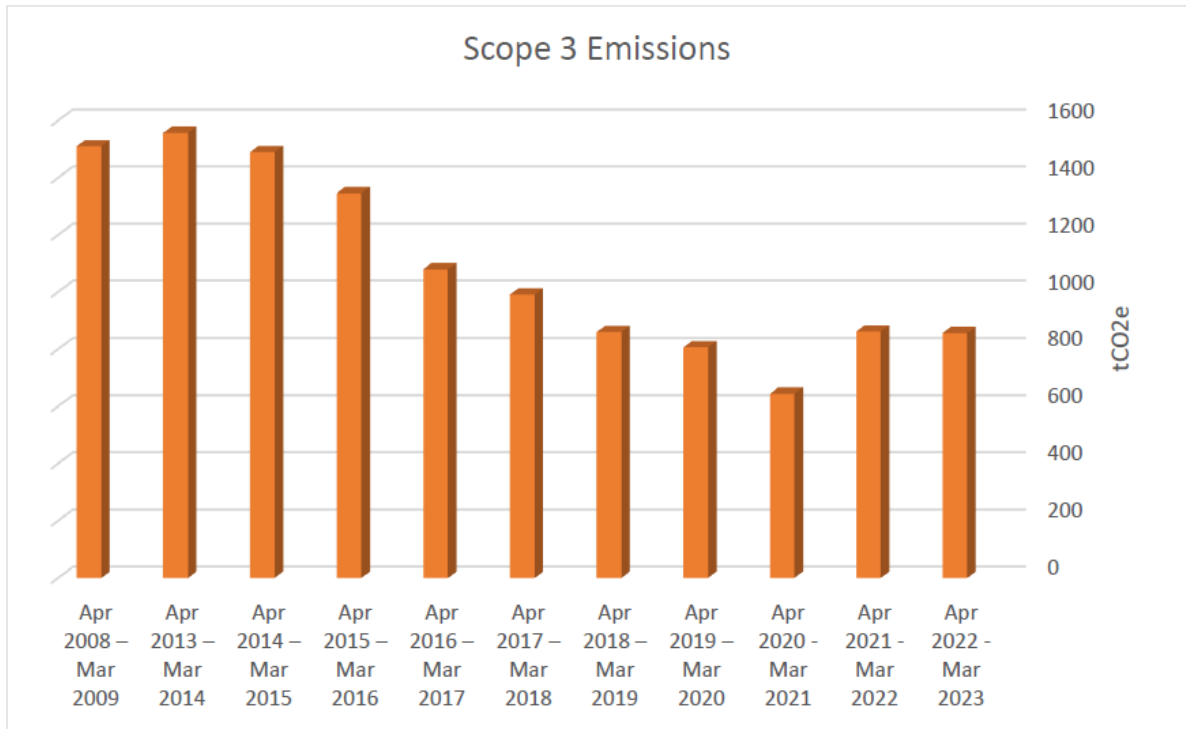
Scope 2 (Electricity Use) has seen a 26% emissions reduction from the baseline year (2019) accounting for a saving of 684 tCO₂e in carbon emitted. Comparisons to the previous year, 2021/22, shows a 17% reduction. A lowered carbon conversion factor for electricity from the UK National Grid accounts for 8.9% of this reduction. There is a reduction of 1,014,781 kWh of electrical power used at the Spectrum Leisure Centre. The Spectrum Leisure is the largest consumer of electricity in the council and accounts for 48.6% of the Council's electrical consumption.



Since 2008/09 there has been a 76% decrease in carbon emissions from electricity usage, however, 61% of the decrease is due to the decrease of the carbon factor of grid supplied electricity.

Scope 3 (Contracts and Services) has presented a 6% increase in emissions from baseline year and a 0.6% reduction from 2021/22. 43% reduction in Scope 3 emissions since 2008/09.

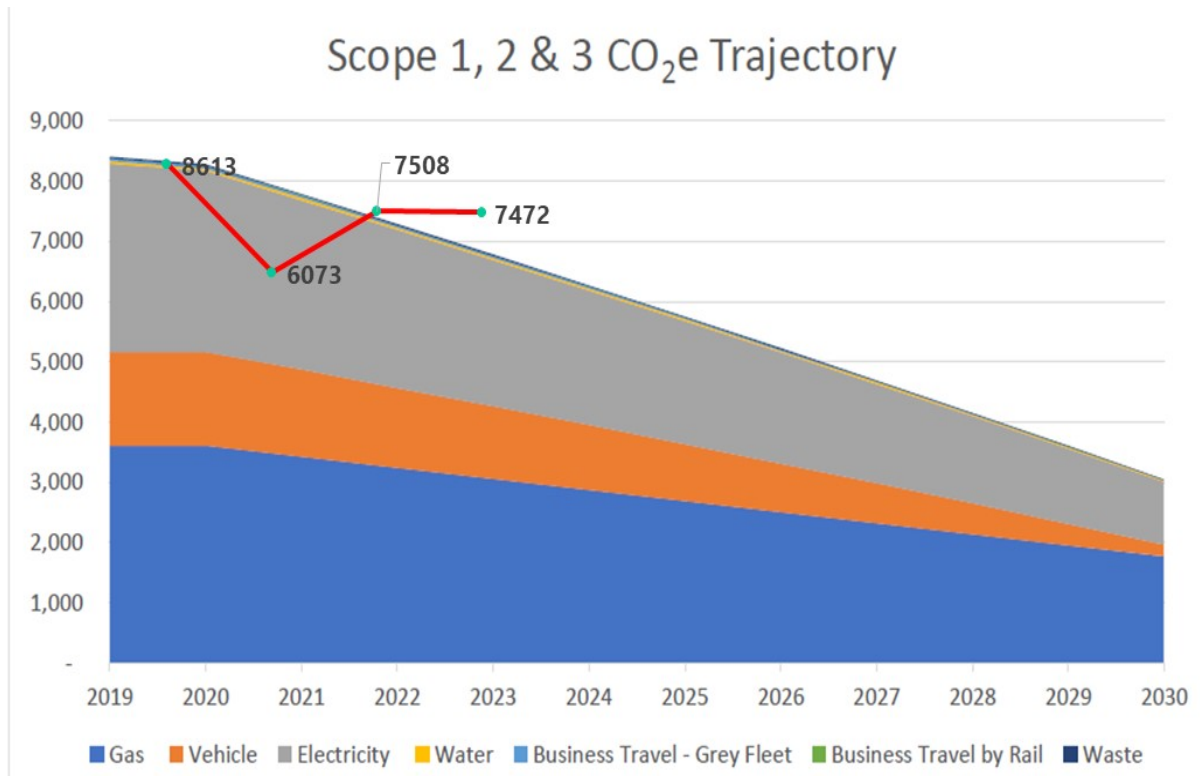
Scope 3 emissions within the report have only reviewed services used, water usage and disposal, waste and recycling, and alternative travel by staff (train and other business travel). There may be additional hidden Scope 3 sources within our contracts and current procurement processes. More work will be required to uncover these additional emissions and a methodology set for calculating Scope 3 emissions. 2022/23 waste and recycling figures were unavailable. Figures from 2021/22 have been used for this report.



Trajectory Progress 2022/23

Referring to the emitted carbon trajectory published in February 2021 which sets out the carbon budget required to achieve net-zero by 2030 indicates that GBC is currently not on track with the annual carbon emission targets. The red line indicates the actual annual carbon emissions.

The trajectory includes estimations which show that 3,407 tCO2e will remain by 2030 and will need to be offset to achieve GBC's net zero ambitions.



Recommendations by APSE Consultants – Emissions recording:

- **Develop a procedure for gathering and storing data as it is made available.** The Council already has SystemsLink software in place which should be utilised to store all energy data, so it is readily accessible.
- **Develop a procedure for gathering and storing Scope 3 data.** Scope 3 emissions can account for 70-80% of a council's total footprint (Carbon Trust), given the use of contractors for waste collection, construction, social services and other services. **Update – Many of these services listed are run "In-House" however a review of existing contracts and the development of Procurement is required under the current CCAP.**
- **Improve waste and recycling gathering and storage of data as it is made available.** Ensure that the Council records data on the type and amount of waste produced by its own operations.
- **Record Business travel by staff owned car data set in a consistent format so that any discrepancies can be identified when comparing years.** In previous years, this was recorded in Excel as distance travelled by vehicle. In 2022/2023 the data was provided as total distance travelled in each month separated by the two categories below:
 - Mileage - Casual/Essential;
 - Mileage - Public Transport rate ;
 - Mileage - Lease Car.

However, this reporting year (2022/2023) just mileage data for casual/essential and lease car was provided, with the Public Transport rate removed.

Recommendations by APSE Consultants – Emission increases and performance:

- **Investigate the increase in gas used by The Spectrum.** Gas emissions have gone up post-Covid. The increase in recent years is largely due to the Spectrum Leisure Centre consuming much more gas than previously. **Update – The increase in gas use at the Spectrum is due to the return to using the Combined Heat and Power plant (CHP) that had been switched off during the pandemic.**
- **Carry out a detailed analysis of the Spectrum CHP to determine if it is still beneficial to use.** Carbon factor of electricity has reduced, and the spark gap has closed (the cost difference between using electricity and gas), the question arises over the carbon and financial benefits of using CHP. **Update – Should the CHP be de-commissioned or removed, Spectrum may struggle with its heating capacity, thus increasing in electricity costs. The CHP at the site is generating a significant saving on energy costs to the Council as the gas used in the CHP reduces the Climate Change Levy (CCL) applied to the Spectrum. The climate change levy on gas was half of the CCL on electricity as of 2021. From 2025 the levy for both will be the same. This may mean that there may be a no financial benefit from using gas over electricity in terms of CCL allowances.**
- **Investigate performance issues in Farnham Road Solar PV.** The 2021-2022 data for Farnham Road Car Park 1 was 79,320 kWh over the year, and the 2022-2023 data was 36,740 kWh over the full year. This is a reduction of 42,580 kWh from the previous year. This translates

to a loss of approximately £12,774 over the year. **Update – A performance issue with the solar PV was identified at the start of 2023. A new inverter was installed in July 2023 which should have resolved the issue. At present there does not appear to be a maintenance contract in place for the upkeep of solar PV panels.**