

## Report of the Executive Director

**UPDATE ON CARBON EMISSIONS AND PROGRESS TOWARDS CARBON NEUTRALITY BY 2027**1. Purpose of report

To update Members on the Council's current carbon footprint and progress towards becoming Carbon neutral by 2027.

2. Background

In July 2019, the Council declared a 'Climate Change Emergency' and committed to become Carbon neutral by 2027. The commitment is based on a baseline for the Council's own operations that included Carbon Scope's 1 and 2, plus Business Mileage (Scope 3).

In 2009, the Council worked with the Carbon Trust to create a Carbon Management Plan that looked to reduce the Council's CO<sub>2</sub>e emissions by 34% (as a minimum) by 2020. The 2009/10 baseline was established at 4,242 tCO<sub>2</sub>e.

In February 2020, the exercise was repeated using the same metrics as the 2009/10 data. The review established that carbon emissions for the Council had significantly reduced by 45%.

In the 2020 report, the Carbon Trust recommended that a new carbon emission baseline was established so that it included data from Council buildings previously omitted from the surveys. This baseline has now been recalculated and it is intended to use this new baseline as a means to track the Council's progress toward Carbon neutrality. Further information is shown in:

- Appendix 1: Back ground information regarding carbon emissions and changes to emissions baseline data
- Appendix 2: Dashboard showing current performance based on the Carbon Trusts data headers
- Appendix 3: Dashboard showing current performance based on new baseline data metrics

3. Financial implications

Financial implications of Climate Change and Green Futures will be considered in individual reports.

**Recommendation**

**The Committee is asked to NOTE the report and RESOLVE that the new carbon reporting baseline be approved.**

Background papers:

Nil

APPENDIX 1

1. Reaching Carbon neutrality

The Council has committed to become Carbon neutral by 31 December 2027. To work towards Carbon neutrality, the Council should prioritise Carbon reduction measures, balancing any residual emissions with Carbon removal (Mechanisms such Carbon sequestration, Carbon capture and Carbon offsetting).

2. Re-establishing the baseline

In February 2020, the Carbon Trust recommended the re-establishment of a new carbon emission baseline which included the emissions data from Council owned buildings previously omitted from the analysis. This related specifically to the inclusion of data from retirement/independent living housing (communal areas), temporary housing accommodation and communal landlord lighting.

In line with the Carbon Trusts recommendation, the Council’s carbon emissions baseline has been recalculated (and now also includes emissions associated with energy loss from getting the electricity supply from the power plant to the Council - Scope 3). Carbon emissions for the new 2018/19 baseline have now been established as 3,704 tCO<sub>2</sub>e.

Independent living communal areas, temporary housing accommodation and communal landlord lighting in 2020/21 contributed a further 1,255 tCO<sub>2</sub>e to the Council’s Carbon footprint. The positive news is that since 2018/19, (based on the new metrics) the Council saw a 14% reduction in its carbon emissions (3,103 tCO<sub>2</sub>e) in 2020/21.

3. The Council’s 2021/21 Carbon Footprint

The information in figure 1 below shows the high level breakdown of how the Councils emissions have been produced.

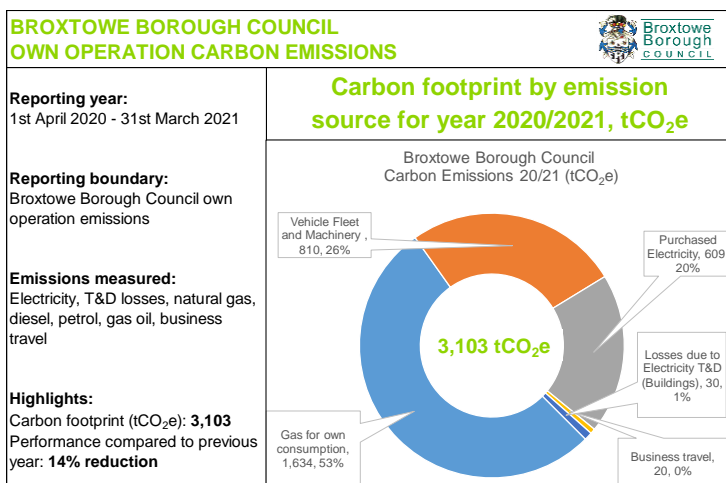


Figure 1- BBC Carbon Footprint 2020/21

As shown in Figure 1, 53% of the Council’s carbon emissions comes from Scope 1 (buildings). Independent living (communal areas) accounts for 60% of these, followed by Bramcote Crematorium (18%) and the Leisure Centres (15%). It must be noted that the Leisure Centre figures reported have been significantly impacted by the current pandemic, as they have been closed for the majority of 2020/21.

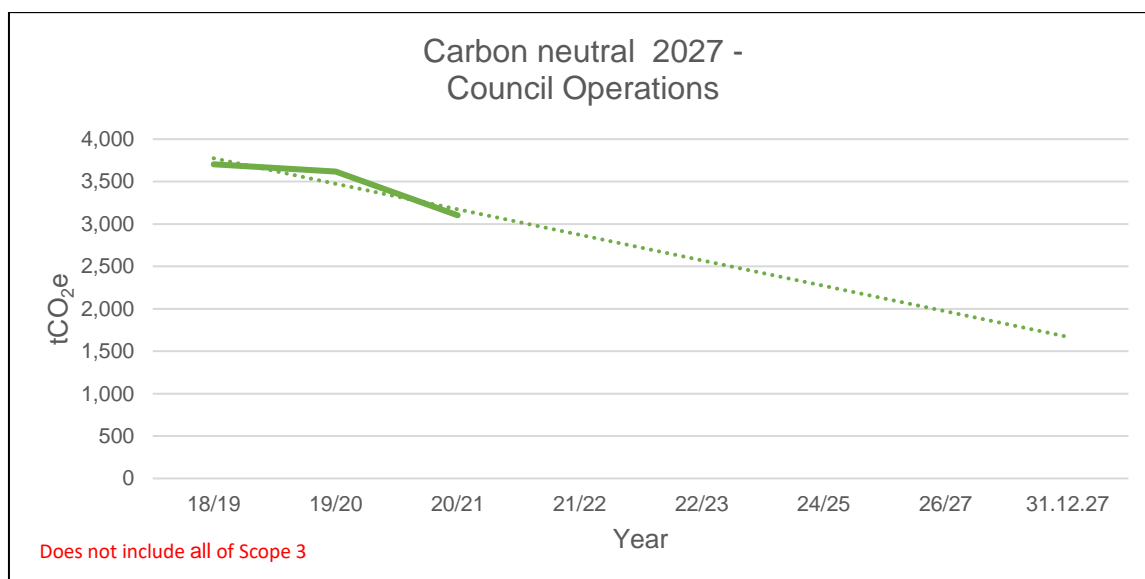
Fleet and Machinery (Scope 1) account for 26% of the Council’s Carbon emissions, with 70% of this being attributable to the Council’s refuse fleet.

A total of 29% of Scope 2 carbon emissions comes from the electricity used in the Council’s temporary housing accommodation, followed by 16% from Council offices/admin buildings and Kimberley depot.

In 2020/21, electric vehicle mileage was captured for the first time (1,656 miles) in the Council’s Business mileage report (mileage undertaken by Officers in their own vehicles whilst on Council business). This equates to just over 2% of all business mileage claimed. This a really positive first step and one that is expected to increase as electric vehicles become more accessible.

**4. Progress towards Carbon neutral 2027**

The information in figure 2 below, shows the Council’s current progress towards its Carbon neutrality target by 2027. The solid green line, shows the Council’s actual Carbon emissions (new baseline), whilst the dotted green line shows the trend line should carbon reductions continue at the current rate.



*Figure 2 - Progress towards Carbon neutral 2027*

Whilst emissions are decreasing, the current rate of reduction needs to increase. It is anticipated that with action such as the decarbonisation or potential fuel change in the refuse fleet, plus improved energy efficiency practices in the Council’s estate, Carbon emissions should significantly lessen.

It should be noted that Asset Management Services have just begun the process of installing over 380 smart meters across the estate. This will help to accurately monitor energy usage, especially in communal areas and will improve Carbon emission reporting.

### **5. Dashboard creation to display progress towards Carbon neutrality**

In order to provide a clear picture of carbon reporting for the Council, a Carbon emissions dashboard has been created. This will provide Members with a high level, visual update on the progress made to date.

It is envisaged that this dashboard will develop and change in time to include a summary of progress on the actions within the Climate Change and Green Futures report.

The dashboard also includes a Carbon neutral countdown to the 31 December 2027 deadline. The countdown (currently shown in the dashboard Appendix 2 and 3) shows the number of days remaining from 22 November 2021.

The dashboard showing the original baseline figures as measured by the Carbon Trust, is shown in **Appendix 2**. A copy of the revised baseline data incorporating the recommended changes by the Carbon Trust is shown in **Appendix 3**. The metrics shown in the dashboard in **Appendix 3** will be the data set used for reporting to Members moving forwards.

It should be noted that as part of the data validation process for creating the new dashboard, a number of reporting anomalies were found. Differences were found in the Scope 1 Fleet and Machinery Emissions data, (Carbon Trust reported 831 tCO<sub>2e</sub> but due to under reporting this should have been 853 tCO<sub>2e</sub>) and the Scope 3 Business Mileage data (Carbon Trust reported 64 tCO<sub>2e</sub>, but the actual figure should have been lower at 51 tCO<sub>2e</sub>).

The revised actual emissions for 2018/19 for the Carbon Trust report have now been established as 2,337 tCO<sub>2e</sub> and not 2,328 tCO<sub>2e</sub>. The correct metrics have been used for the data shown in the dashboard in **Appendix 3**. Data validation processes will continue to be used to provide confidence in the figures reported.

### **6. Priorities of focus for the next year**

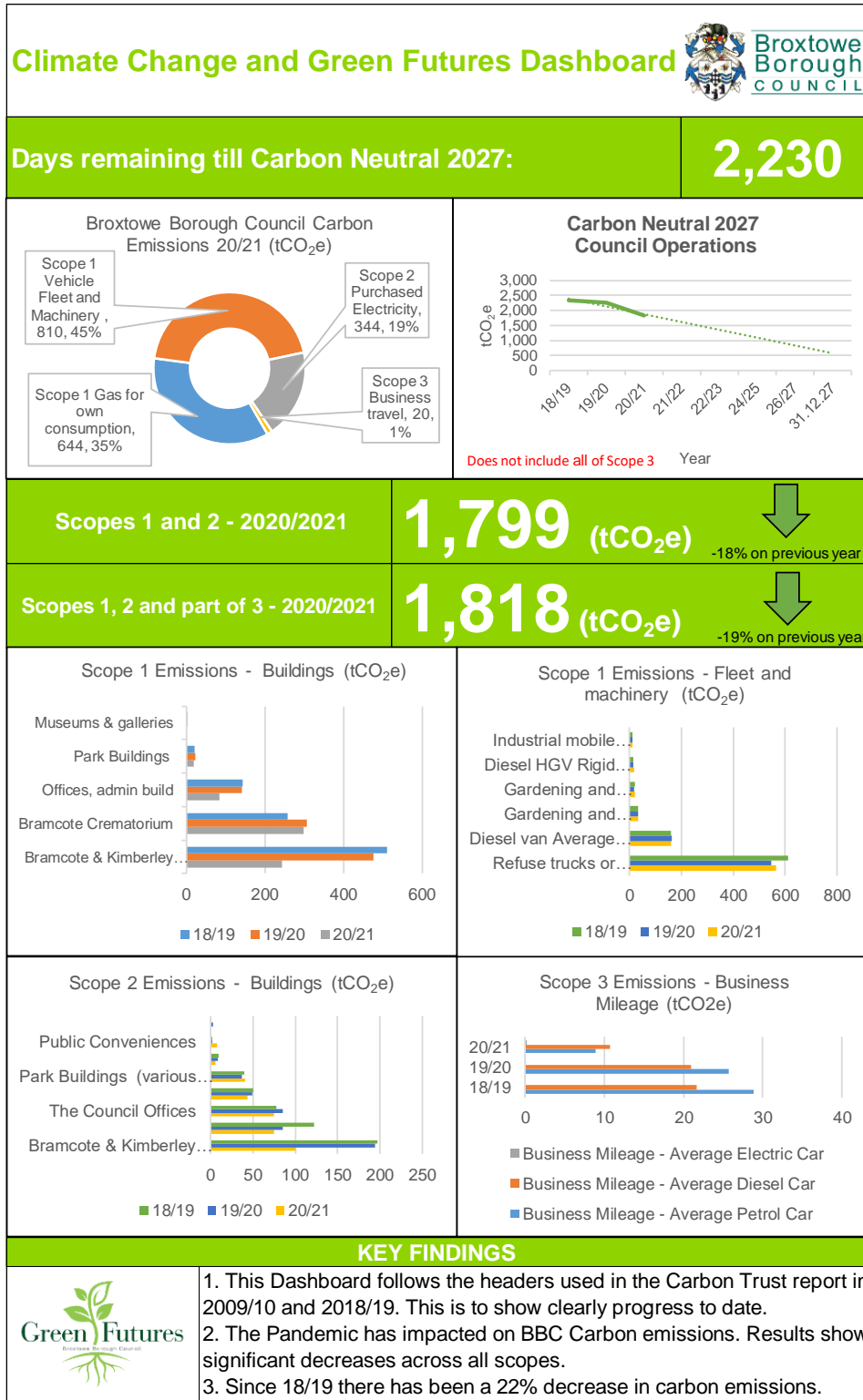
In order to accelerate the rate at which the Council's Carbon emissions fall, the priorities will be as follows

- Undertake a review of the current Climate Change and Green Futures Plan
- Establish a roadmap to 2027
- Undertake a full energy audit of Broxtowe Borough Council estate and establish a plan of action as part of the already established Asset Management review.
- Decarbonise the fleet and machinery, looking at either electric vehicle (EV) freighters or alternative fuel supply

- Look at options for residual emissions (Carbon sequestration projects). However, the focus should be on reducing emissions and not their removal
- Establish a full, Scope 3 baseline (to include Supply Chain, Waste, Water, Staff commuting and working from home). This is to get a fuller understanding of the Council's full Carbon Footprint a revenue growth bid will be submitted during the coming budgetary process for this work to be carried out in the new financial year 2022/23.

APPENDIX 2

The information in the below dashboard shows the Council current position with regards its emissions based on the original metrics used by the Carbon Trust.



APPENDIX 3

The information in the below dashboard shows the Council's current position with regards its Carbon emissions which are based on the revised metrics (includes data from all Council buildings and emissions from energy loss). This will be used as the new baseline for tracking progress moving forwards.

