

Bracknell Forest Council Consultancy support – **Establishing the Council's** Carbon Footprint

Report

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BRACKNEL FOREST COUNCIL

CONSULTANCY REPORT – **ESTABLISHING THE COUNCIL'S CARBON** FOOTPRINT

Contents

1 Introduction	4
2 Carbon Footprint	5
3 Notes and Observations	6
4 Recommendations for Gathering Data Going Forward	8
4.1 Scope 1 and 2 Emissions	8
4.2 Scope 3 Emissions	8
5 Conclusion and Recommendations	8
6 Glossary	10

1 Introduction

This report provides the results of the carbon footprint calculations for Bracknell Forest Council which can be used as a benchmark to monitor future emissions. The carbon footprint has been undertaken in accordance with best practise guidance by the Greenhouse Gas Protocol and calculated using 2019 conversion factors for the carbon dioxide equivalent (CO₂e) published by the Department for Business, Energy & Industrial Strategy (BEIS).

The reporting baseline year is nominated as the calendar year of 2019. The carbon footprint is categorised into scopes, which cover:

Scope 1 (direct) emissions are from activities owned or controlled by the Council. Examples of Scope 1 emissions include emissions from combustion in owned or controlled boilers, furnaces and vehicles.

Scope 2 (indirect) emissions are associated with purchased electricity, heat, steam and cooling. These indirect emissions are a consequence of **the Council's** energy use, but occur at sources that the Council do not own or control.

Scope 3 (other indirect) emissions are a consequence of **the Council's** actions that occur at sources the Council do not own or control and are not classed as Scope 2 emissions. Examples of Scope 3 emissions are business travel by means not owned or controlled by the Council, waste disposal, materials or fuels the Council purchases.

2 Carbon Footprint

The carbon footprint has been calculated using data provided by the Council, which was deemed to be the best data available at the time of reporting. The Council are responsible for checking the accuracy of the data provided.

Table 1: Carbon emissions by source for 2019

Emissions Source	Scope	% Split	TonnesCO₂e
Natural Gas	1	45%	2,808
Council Vehicles	1	1%	52
Electricity	2	55%	3,427
Total	_	<u>100%</u>	6,288

Chart 1: Carbon emissions by source for 2019



Table 2: Carbon emissions by scope

Emissions Source	% Split	TonnesCO₂e
Scope 1	45%	2,861
Scope 2	55%	3,427
Total	<u>100%</u>	6,288

Chart 2: Carbon emissions by scope



3 Notes and Observations

Appendix 1 is an Excel spreadsheet that shows a breakdown of the emissions by source. This can be used to develop a carbon strategy by identifying and prioritising sources with the highest emissions.

Electricity

Data from Npower shows that the Council are responsible for 98 electricity meters. This gives an indication of the number of assets the Council are responsible for as each building will typically have one electricity meter. A review should be carried out of each asset to determine if the Council are responsible for paying the electricity and gas usage and taking ownership for the associated carbon emissions. It is not uncommon for assets to be sold, leased or decommissioned yet the Council continue to pay for the utilities. The electricity and gas data is apportioned over the period 1st October 2018 to 30th September 2019. This means that usage has been prorated for periods that do not cover a full calendar year e.g. a supply period covering 380 days has been adjusted to 365 days. This calculation method is a fair representation of data as quarterly billed sites can skew data when the billing period straddles the start/end date for the reporting period.

Streetlighting data was taken from Power Data Associates which was summarised for 2018/19. The cost of the streetlighting has been estimated as this was not provided.

Vehicles

Data has been provided for the manufacturers' gCO₂/km for several vehicles. This provides a more precise calculation for vehicle emissions and this data has been used where available. The methodology for calculating these emissions factors is based upon a combination of datasets on the average new vehicle regulatory emissions for vehicles registered in the UK, and an uplift to account for differences between these and real-world driving performance. An uplift has been applied on top of the manufacturers' gCO₂/km to take into account the 'real world' impacts on fuel consumption. The percent increase applied is based on the vehicle age.

Where the gCO2/km data has not been provided, the BEIS emissions factor have been applied.

Mileage has not been provided for vehicles that have been disposed of during the reporting year. The mileage and CO₂e should be included for the vehicles that were operational during the reporting year.

The distance travelled by vehicles has been displayed as average miles per year. Actual mileage should be recorded within each subsequent reporting year in order to record the actual distance travelled.

To avoid double-counting of emissions, it is assumed that electric vehicles are predominantly charged on premises owned by the Council which are already being reported on under Scope 2, electricity usage.

Leased Vehicles

Leases can be classified into either finance or operating leases. The distinction between a finance lease and an operating lease will usually be evident from the terms of the contract between the lessor and the lessee.

- A finance lease transfers near all the risks and rewards of ownership of an asset to the lessee. The asset leased will be treated as an asset wholly owned by the lessee as defined in financial accounting standards and is recorded as **such on the company's b**alance sheet. This falls under Scope 1 emissions.
- An operating lease is a lease other than a finance lease. The lessee will have operational control but not ownership or financial control. If it is unknown whether the assets are leased under a finance lease or an operating lease,

then the Council's accountant or the leasing company will be able to provide this information. This falls under Scope 3 emissions.

It has been assumed that a finance lease is in place for the leased vehicles and these are included under Scope 1 emissions.

4 Recommendations for Gathering Data Going Forward

4.1 Scope 1 and 2 Emissions

The Council should develop a procedure for gathering and storing data as it is made available. The benefit of this is that the carbon reporting process is streamlined and progress towards targets can be tracked.

APSE Energy can support by gathering data on behalf of the Council and storing it on energy management software. The Council will be provided with password protected access to the cloud-based database so it can access the data and generate cost and carbon reports. APSE Energy can use this data to provide streamlined reporting to the Council in subsequent years.

4.2 Scope 3 Emissions

Scope 3 emissions are separated into 15 different categories which includes waste, staff travel and the purchased goods supply chain. Scope 3 emissions can amount to a higher proportion of total emissions than Scope 1 and 2 combined and represent the most significant opportunity to reduce carbon emissions and the impact to climate change. So, understanding these risks through accurate and consistent measurement, evaluation and reporting should improve both resilience and reputation.

ASPE Energy can provide further guidance on how to gather Scope 3 data from third parties.

5 Conclusion and Recommendations

- Use carbon footprint data and Appendix A to develop a strategy to become net zero carbon.
- Sense check all data to confirm accuracy and that the asset list is correct.
- Provide a more detailed description of the vehicle type.

- Ensure the costs of street lighting are available as this can be a major element of energy use and emissions.
- Develop policies and processes for capturing data going forward and report on Scope 3 emissions.
- Develop policies and processes to request emissions data from suppliers to gather Scope 3 data.
- Identify if leased vehicles are under a finance lease (Scope 1) or an operating lease (Scope 3).

6 Glossary

Term	Definition
Carbon dioxide equivalent (CO ₂ e)	The carbon dioxide equivalent (CO ₂ e) allows the different greenhouse gases to be compared on a like-for-like basis relative to one unit of CO ₂ and includes the six greenhouse gases with the greatest global warming potential (GWP).
Carbon footprint	A carbon footprint measures the total greenhouse gas emissions caused directly and indirectly by a person, organisation, event or product. A carbon footprint is measured in tonnes of carbon dioxide equivalent (tCO2e).
Council Vehicles	Vehicles that are owned or controlled by the Council. This does not include employee-owned vehicles that are used for business purposes.
Electricity	Electricity used at sites owned/controlled by the Council. This is reported as a Scope 2, indirect emission. The conversion factors used are for the electricity supplied to the grid that the Council purchase - they do not include the emissions associated with the transmission and distribution of electricity.
Gas	Primary fuel sources combusted at a site or in an asset owned or controlled by the Council.

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