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# BLADEROOM GROUP: CARBON REPORT

Year Ending 31<sup>st</sup> March 2022



IDENTIFICATION

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Reference:	BRG GHG Emissions: Year Ending 31 <sup>st</sup> March 2022


DOCUMENT OWNER

It is the responsibility of the company secretary to compile this document every year.

REVISION HISTORY/DOCUMENT AUTHOR

Revision	Date	Author
01	05/08/2022	W Waterston

DOCUMENT REVIEW/SIGN OFF

Reviewed by	Position	Signature
Rob Scott	Finance Director	

DOCUMENT CONTROL

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# Scope

**Reporting organisation:** BladeRoom Group Ltd (“BRG”) - together with ModuleCo Ltd (“MCo”), are the only UK trading companies within the Bladeroom Holdings Group. BRG and MCo contain the only UK based operations accounted for in this report. The principal activity of the group is the design and manufacture of mission-critical, modular data centres, healthcare and pharmaceutical facilities.

**Reporting period:** April 1<sup>st</sup> 2021 to March 31<sup>st</sup> 2022

**Organisational boundaries:** The BladeRoom Group of companies which include BRG and MCo – the two principal UK trading companies through which the group’s three lines of business operate: Bladeroom, ModuleCo and ModuleCo Pharma.

**Reporting boundaries:** This report has been created in accordance with ISO14064-1:2018 (and the definitions therein) and will include all Scope 1 and Scope 2 Greenhouse Gas (GHG) emissions, as required by Streamlined Energy and Carbon Reporting (SECR) as well as all significant, feasible and realistic Scope 3 GHG emissions. We have used the UK Government’s SECR reporting guidelines and ISO14064-1:2018 as the basis for this report and the criteria for determining relevant CO<sub>2</sub> emissions.

The head office in Bishops Cleeve has been excluded from the report because it is a serviced office, and therefore all energy usage from the office is the responsibility of our landlord, and any other emission source is considered negligible - especially when considering the emission sources of the BladeRoom factory.

The module quantities for ModuleCo materials used in construction have been based on the number of facilities assembled during the reporting period. BladeRoom chassis quantities are based on the number of chassis delivered to site in the reporting period.

Waste has been included for collections during the reporting period by 3<sup>rd</sup> party contractors.

**Base year:** The FY21 reporting period was our base year. We used the DEFRA figures from the UK Government’s SECR Conversion Tables “Conversion factors 2020: full set (for advanced users)” (found here: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2020>) as our GWP and emission factors.

**Base year review procedure:** Should any one of the following changes in circumstance occur, BladeRoom will review/re-calculate its base year carbon footprint:

- Structural change in the reporting or organisational boundaries;
- A change in calculation methodologies or emission factors; or
- The discovery of an error or a number of cumulative errors that are collectively substantial.

The review will decide the action(s) required to recalculate the base year to make it representative at the time of review.

# Introduction

The purpose of this report is to determine the Carbon Footprint and to set out the Carbon Reduction Plans of the BladeRoom Group of companies.

The intended users of this report are primarily internal stakeholders, including senior management and directors. Indirectly, the report will be used as supporting evidence in sales and marketing activities. The report will be made readily available to all internal stakeholders and will be distributed to potential customers as necessary.

The overall kgCO<sub>2</sub>e over our reporting period will be used to better understand our environmental impact as well as provide the BladeRoom Group of companies a target of CO<sub>2</sub> to offset.

The BladeRoom Group of companies doesn’t currently have any GHG sinks or GHG removal procedures. The BladeRoom Group of companies continues to assess options to invest in GHG sinks/removal procedures, which will then be captured in future reports.

# Carbon Reduction Plan

BladeRoom Group has the following targets and plan for reducing our carbon footprint:

- Reduce our reportable carbon emissions by 10% each year
- Increase the amount of factory waste we recycle by 50%
- Become and remain a signatory of the Climate Pledge
- Be Net Zero by 2040

# Uncertainty Assessment

The uncertainty of the results, relating to our various GHG emission sources, will be categorised into three levels; Low, Medium and High. We define these levels as below:

Uncertainty Level	Description
Low	Any primary source of data which provides a definitive result. For example; energy meter readings from invoices.
Medium	Any data which requires a degree of estimation but which is based on primary source data. For example; material weights within our modules.
High	Any data which is based solely on our best estimation and has limited reliable data to back it up. For example; waste from our factory.

The uncertainty level has been set to provide the reader/interpreter with an understanding of the data collected and its accuracy; in turn allowing them to make decisions and actions proportionate to the data acquired. This might mean changing the control process for collecting the data in future, to increase accuracy and reduce the uncertainty, or change company policy to reduce/improve carbon footprint in a measurable way.

The Company’s approach is to mitigate uncertainty, where possible, from data collection. There are control processes in place for collecting all the SECR relevant data, most of which comes from invoicing and primary data collection. New methods have been introduced for Scope 3 items, with a full list being displayed in the table opposite.

The low uncertainty data is considered to have little to no impact on the results and their interpretation. The medium uncertainty items are considered to have limited impact on the results. Although the data may not be exact, decisions made based on this data should provide measurable results that are materially accurate. The high uncertainty items should be considered as reliable indications; decisions made based on this data will only see indicative results and it would be very difficult to measure these impacts accurately.

# Control Procedures and Uncertainty Results

Emission Source	Control Procedure/Method of Data Capture	Uncertainty
Water, Gas and Electricity	Each month BRG is invoiced for the water, gas and electricity used within its in scope facilities. These invoices contain the meter readings which are recorded and used in conjunction with the UK Government’s SECR conversion tables to calculate the CO <sub>2</sub> emitted.	Low
Factory Fuel and LPG	Any fuel used within the factory or site is purchased either in bulk or via fuel cards. The invoices for which provide the usage and quantity data which allows BladeRoom to calculate the CO <sub>2</sub> emissions using the UK Government SECR conversion tables.	Low
Mileage	Staff must submit and claim for their mileage through expenses forms. These forms contain a built in mileage calculator powered by Bing Maps which calculates the route and distance. These claims are then approved by line managers to ensure that all claims are business related. This mileage figure was then used in conjunction with the UK Government’s SECR conversion tables to calculate the CO <sub>2</sub> emission data.	Low
Fuel Cards	At the end of each month BRG is invoiced for the use of the fuel cards, these invoices contain the fuel used data which is used in conjunction with the UK Governments SECR conversion tables to provide the CO <sub>2</sub> emission data.	Low
Delivery	No prior control procedure for this data. The following method was used for the purposes of this report. We used the known distance from our factory to our live project sites with our delivery schedules to provide a list of the number deliveries and their approximate size. This list was then used in conjunction with the UK Governments SECR conversion tables to calculate the CO <sub>2</sub> emission data.	Medium
Materials of Construction	No prior control procedure for this data. The following two methods were used for the purposes of this report. The 3D Modelling software we use provides material weights for some of the components in our facilities. Other components are calculated using the technical specification sheets and the dimensions of the material.	Medium
Waste - Site	Our site waste is collected and a report which breaks down all of our waste into categories (Construction/Demolition, Plasterboard, Paper and Cardboard and mixed metals) is provided. The data from this report is then used to calculate the Carbon output from the UK Government’s SECR conversion tables.	Medium
Waste - Factory	Our factory waste is collected and a report which breaks down all of our waste into categories is provided. The data from this report is then used to calculate the Carbon output from the UK Government’s SECR conversion tables.	Medium

# Significance Criteria

The criteria for determining the significance of GHG emission sources is defined by one of the below categories:

Ref No.	Criteria	Considerations
1	Relevance	Does the data apply to the intended user? We included the data if it is relevant to the intended user.
2	Completeness	Is there enough data to draw a reasonable conclusion/result? We included the data if we have the complete set of data.
3	Consistency	Is the method used to collect the data repeatable and is the data collected obtainable in future? We have included the data if the method is consistent and we can obtain the data the same way in future.
4	Accuracy	Is there enough accurate data to reach a clear conclusion? We have included the data if it is accurate and hasn't relied on unsubstantiated assumptions.
5	Transparency	Does omitting the data hinder the user from making informed decisions with reasonable confidence? We have included the data if the data is clear and informed decisions can be made from it.
6	Magnitude	Is the data quantitatively substantial? Emission sources which meet several of the significance criteria will be calculated and we have then included the data if the kgCO <sub>2</sub> e is substantial (>500kgCO <sub>2</sub> e in a year).
7	Level of Influence	How much control does BladeRoom have over the emission source? We have included the data if BladeRoom has control over the emission source and can act to change it.
8	Risk/Opportunity	Does the emission source or data highlight a risk to the business? We have included the data if it poses a risk or opportunity for BladeRoom.
9	Sector-specific Guidance	Does the sector BladeRoom work in deem a particular emission source significant or require the collection of specific data? We have included the data if there is guidance suggesting we need to collect it.
10	Outsourcing	Is the emission source from activities which have been outsourced to a third party? Any outsourced emissions have been excluded.
11	Legal Requirement	Are we required to collect data to satisfy a statutory requirement? We have included any data which BladeRoom are required to collect/report on.

This year BRG was required to provide a SECR report which covers all Scope 1 and Scope 2 emissions as well as company mileage (Scope 3). BRG has therefore included all those emission sources as part of this report. Each of the other emission sources, within scope, were tested against the above criteria. If any of the data doesn't meet one of the criteria, it was weighed up against the other considerations to decide whether it is suitable for inclusion in this report.

# Significance Criteria Matrix

The below matrix highlights which emission sources met which significance criteria:

Emission Source\Ref No.	1	2	3	4	5	6	7	8	9	10	11
Water	✓	✓	✓	✓	✓	✓	✓				✓
Gas	✓	✓	✓	✓	✓	✓	✓				✓
Electricity	✓	✓	✓	✓	✓	✓	✓				✓
Factory Fuel	✓	✓	✓	✓	✓	✓	✓				✓
Factory LPG	✓	✓	✓	✓	✓	✓	✓				✓
Mileage	✓	✓	✓	✓	✓	✓	✓				✓
Fuel cards	✓	✓	✓	✓	✓	✓	✓				✓
Delivery	✓	✓	✓		✓	✓	✓				
Metals	✓	✓	✓		✓	✓	✓		✓		
Insulation	✓	✓	✓		✓	✓	✓		✓		
Tyres	✓	✓	✓		✓	✓	✓		✓		
Concrete	✓	✓	✓		✓	✓	✓		✓		
Waste	✓		✓		✓	✓	✓		✓		
Bioenergy											
Refrigerants	✓										
Delivery Vehicles											
Electricity for EVs											
Heat and Steam											
Water Treatment											
Sea and Air Travel	✓		✓	✓			✓				
Hotel Stays	✓		✓	✓			✓				
Office Materials	✓		✓	✓			✓				
Head Office Services	✓									✓	
Site Services	✓									✓	

- Key:
- ✓ - Has met the criteria,
  - - Included in the report,
  - - Excluded from the report

# Inclusions

The following GHG emission sources have been included in our calculations:

Emission Source	Description
Water	Water usage based on our meter readings from our factory
Gas	Gas usage based on meter readings from our factory
Electricity	Electricity usage based on meter readings from our factory
Factory Fuel	Any non-LPG fuel consumed within our factory facility
Factory LPG	Any LPG used within our factory
Mileage	Any approved mileage claimed by BladeRoom employees (calculated against average vehicle and unknown fuel)
Fuel cards	Fuel purchased using our business fuel cards
Delivery	The distance travelled transporting our facilities and any major deliveries to our site locations
Metals	Any metal used in our finished products from steel frame to metal fixings (nuts and bolts)
Insulation	Any insulation used within our finished products including ceiling tiles
Tyres	This is the most suitable category for our rubberised roof membrane used in our finished products
Concrete	Any concrete used in the production/assembly of our facilities
Waste	Waste disposed of as per our waste reports

# Exclusions

The following GHG emission sources have been excluded:

Emission Source	Reason for Exclusion
Bioenergy	The BladeRoom Group of companies does not use bioenergy
Refrigerants	Any refrigerants used in BladeRoom Group products are considered part of the end user’s footprint. Refrigerants used by BladeRoom in the production of our products is either considered negligible or part of another entity’s carbon footprint i.e. serviced head office with air conditioning is deemed part of our landlord’s carbon footprint.
Delivery Vehicles	The BladeRoom Group of companies does not own any delivery vehicles
Electricity for EVs	The BladeRoom Group of companies doesn’t own any Electric Vehicles (EVs)
Heat and Steam	The BladeRoom Group of companies does not use heat or steam in the production of its finished products
Water Treatment	The BladeRoom Group of companies does not have any water treatment practices
Sea and Air Travel	Due to the COVID-19 pandemic business travel was restricted during the reporting period and therefore negligible
Hotel Stays	Due to the COVID-19 pandemic hotel stays were restricted during the reporting period and therefore negligible
Office Materials	Due to the variety and limited quantity of office materials (i.e. stationary, tea and coffee etc.) consumed it is considered infeasible and too costly to calculate the carbon footprint of these items. It is also not considered a significant CO <sub>2</sub> emission source.
Head Office Services	The BladeRoom Group of companies’ head office is fully serviced and therefore any of the incoming services (gas and electric) are considered part of our landlord’s GHG emissions.
Site Services	On all of the BladeRoom Group of companies sites, all services (gas and electric) are the responsibility of the site owner/end client or subcontractor. This includes generators.

This report excludes the carbon footprints of our supply chain as well as our clients and their end users. Any energy and other consumables supplied by others is also excluded from this report. The above list is not comprehensive so anything not specifically mentioned in the inclusions is assumed to be excluded from this report, although we don’t believe there to be any such items of significance.



# Results

The headline results are below:

	Emission Source	kgCO <sub>2</sub> e
Scope 3	Mileage	120,494
Scope 2	Electricity	101,799
Scope 3	Deliveries	101,658
Scope 1	Gas	83,352
Scope 1	Site Fuel	62,396
Scope 1	Factory LPG	35,183
Scope 3	Annual Waste	12,207
Scope 1	Fuelcards - Diesel	11,471
Scope 1	Fuelcards - Petrol	10,288
Scope 3	T&D- UK Electricity	9,009
Scope 1	Factory Fuel	5,517
Scope 3	Water Usage	249
Total:		553,623

Summary	tCO <sub>2</sub> e
Scope 1	208.21
Scope 2	101.80
Scope 3	243.62
Total:	553.6

# Declaration and Sign-off

This Carbon Reduction Plan has been completed in accordance with PPN 06/21 and associated guidance and reporting standard for Carbon Reduction Plans. Emissions have been reported and recorded in accordance with the published reporting standard for Carbon Reduction Plans and the GHG Reporting Protocol corporate standard and uses the appropriate Government emission conversion factors for greenhouse gas company reporting.

Scope 1 and Scope 2 emissions have been reported in accordance with SECR requirements, and the required subset of Scope 3 emissions have been reported in accordance with the published reporting standard for Carbon Reduction Plans and the Corporate Value Chain (Scope 3) Standard.

This Carbon Reduction Plan has been reviewed and signed off by the Board of Directors.

Signed By/Position	Date	Signature
Rob Scott Finance Director	23 <sup>rd</sup> August 2022	



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