BGEN
NEXT GENERATION ENGINEERING
A part of MGroup Services

BGEN LTD

CARBON ASSESSMENT REPORT
BASELINE YEAR 2022/23

CONTENTS

ABOUT BGEN LTD

We are in a Climate Emergency and as a business we need to play our part to reduce carbon emissions and limit the global impacts of climate change.

Our mission is to create a lasting legacy through the consistent, safe and sustainable delivery of our engineering solutions and to help define the next generation of the company. Understanding the sources of carbon emissions produced as part of our business activities is key to identifying where our reduction efforts should be focused and where we can have the most impact. This baseline Carbon Assessment provides a vital first step on our journey to setting ambitious but achievable carbon reduction targets, that are in line with science, through the Science Based Targets initiative (SBTi) and achieving Net Zero. The data in this report tells us that we need to focus on our vehicle fleet; identifying more efficient and sustainable transport and logistics options and our downstream supply chain. This will require collaboration with our suppliers and subcontractors, to ensure that our goals are accomplished, and the impacts of climate change are minimised. It is important to note that BGEN Ltd was acquired by M Group on the 30th October 2024, and this branded report was finalised after the acquisition date.

M Group have carbon reduction targets for Scopes 1 , 2 and 3, that have been validated by the Science Based Targets initiative. Following the acquisition of BGEN Ltd, a re-baselining activity may be triggered by M Group, to incorporate BGEN Ltd's carbon emissions into their carbon emissions data and reduction targets.

INTRODUCTION

BGEN Ltd is committed to transparency and sustainability in reducing its carbon footprint. This report details of their greenhouse gas (GHG) emissions for the 2022/23 financial year, calculated in line with the **ISO 14064-1 standard** and verified by Tunley Environmental. It forms the basis of BGEN Ltd's carbon reduction targets in line with the **Science Based Targets initiative** methodology.

Working closely with Tunley Environmental, they have expanded their emissions assessment to cover all three scopes—direct emissions (**Scope 1**), indirect emissions from energy use (**Scope 2**), and other indirect emissions throughout our supply chain (**Scope 3**). This thorough evaluation ensures that all Scope 3 emissions are accurately accounted for, providing the insights needed to drive relevant reduction strategies.

Aligned with the **GHG Protocol** and the **Corporate Value Chain Standard**, their emissions data is reported in **carbon dioxide equivalents** (CO_2e) to ensure consistency and clarity. This data further builds on the work that had already been initiated by BGEN Ltd as part of a 2019 baselining activity, helping identify key areas for further reductions'.

This report provides a clear snapshot of BGEN Ltd's emissions, highlighting opportunities for improvement, and supports their commitment to setting science-based targets that align with global climate goals. By understanding and addressing their full carbon footprint, they are taking meaningful steps toward a sustainable, Net Zero future.

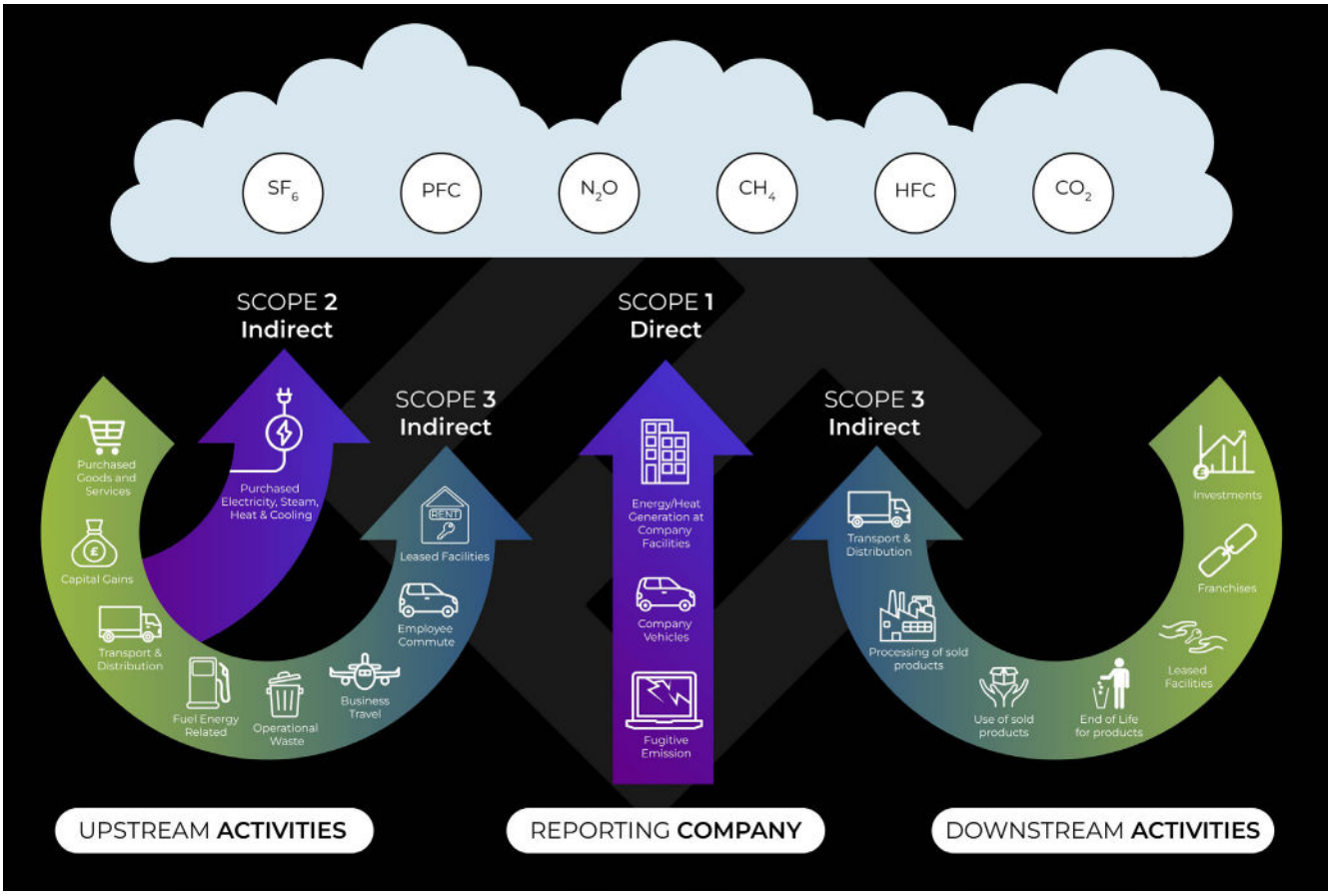

Figure 1: An overview of the GHG Protocol scopes and emissions across an entire value chain.

REPORTING BOUNDARY

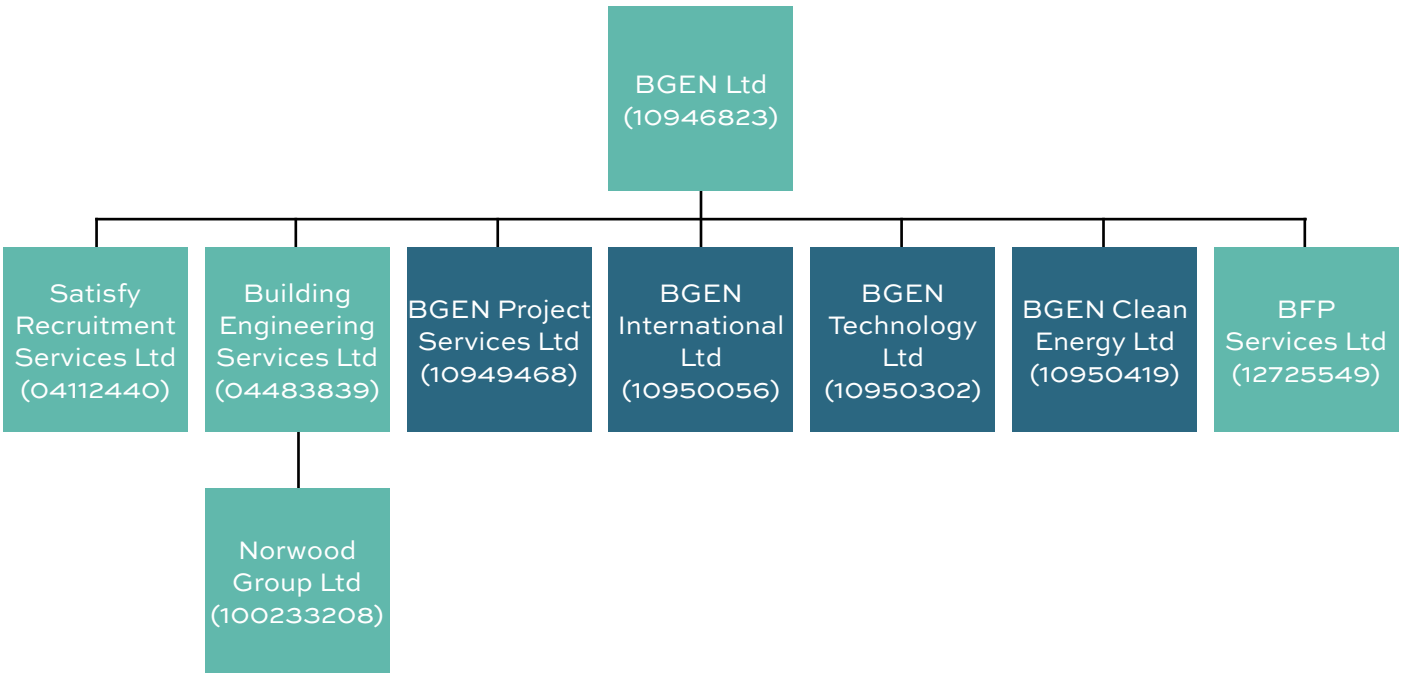

Figure 2: The BGEN Ltd Group comprises a diverse range of companies, each contributing to the overall emissions footprint. Understanding the relationship between these entities is key to accurately assessing and managing greenhouse gas (GHG) emissions across the entire organisation. It is, therefore, important to set an emissions scope boundary for BGEN Ltd in accordance with the operational control.

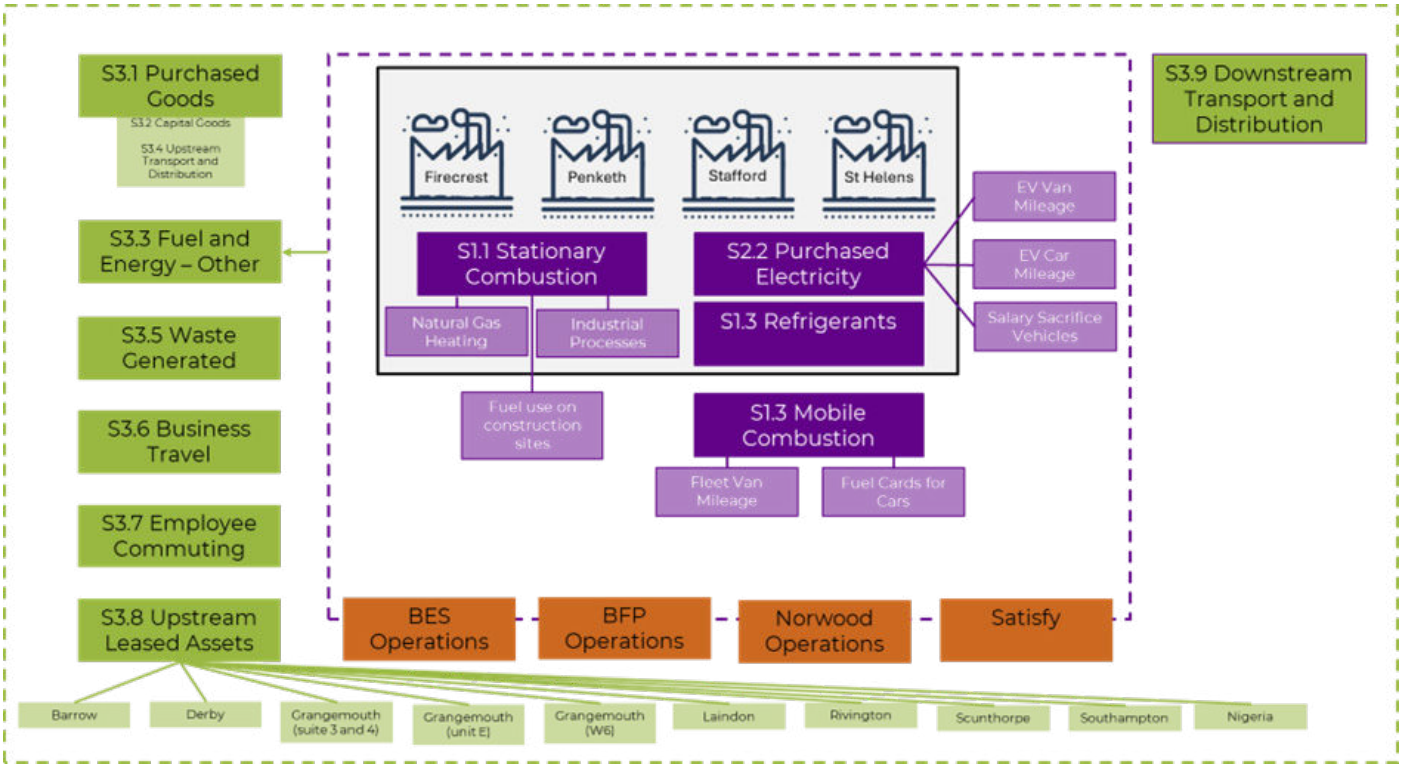

Figure 3: The reporting boundary for BGEN Ltd Carbon Assessment

GHG RESULTS

For the reporting baseline year 2022/2023, the total carbon footprint was **23,297 metric t CO_2e**. This is equivalent to driving over **59 million miles** in an average car, or the distance from Earth to Mars.

The company's emissions are categorised according to the GHG Protocol, which distinguishes between three types of emissions:

- **Scope 1:** Direct emissions from owned or controlled sources (e.g., fuel combustion in vehicles or boilers).
  - o **1,063 t CO_2e** (4.56% of total emissions)
- **Scope 2:** Indirect emissions from the generation of purchased electricity, heat, or steam consumed by the company.
  - o **206 t CO_2e** (0.88% of total emissions)
- **Scope 3:** All other indirect emissions that occur in the company's value chain, such as business travel, waste disposal, and purchased goods and services.
  - o **22,028 t CO_2e** (94.55% of total emissions)

BGEN Ltd's primary carbon footprint is associated with Scope 3 emissions, underscoring the importance of addressing emissions across the entire value chain as part of the company's ongoing sustainability efforts.

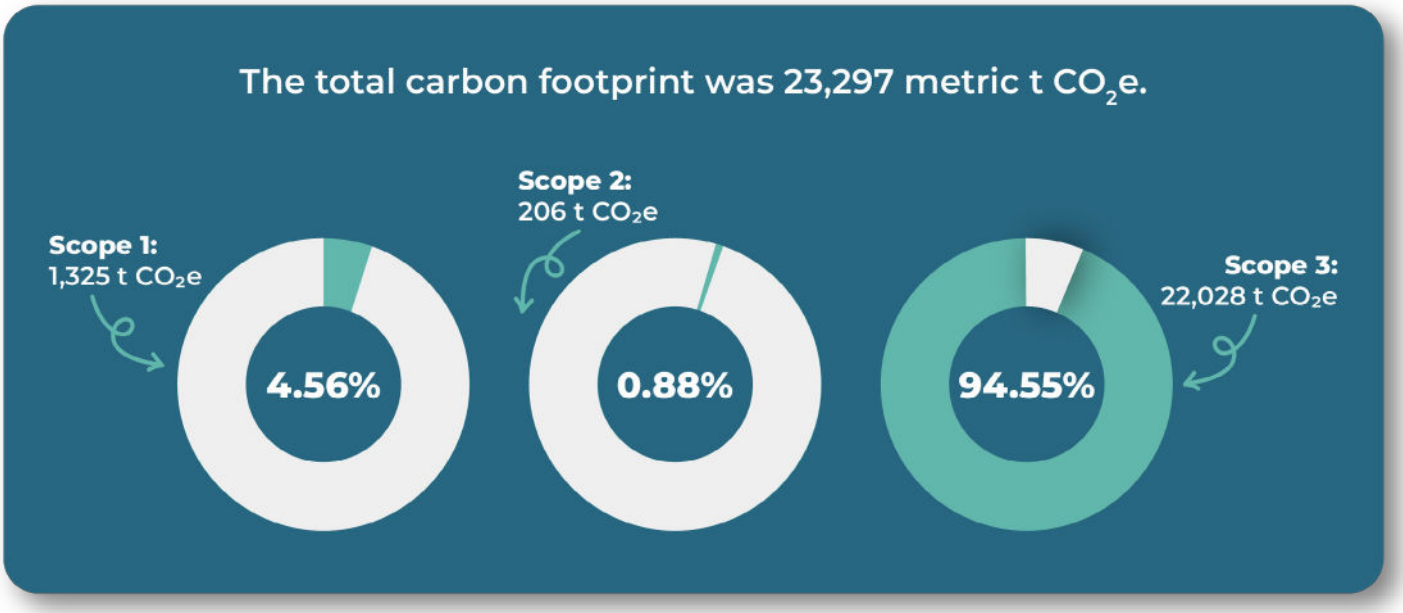

Figure 4: Percentage contributions of three scopes.

Scope	Category	2022/23 t CO_2e	Out of Scopes
S1.1	Stationary combustion	271	6
S1.2	Mobile combustion	782	5
S1.3	Refrigerants	10	0
S2.1	Purchased heat	0	0
S2.2	Purchased electricity	206	66
S3.1	Purchased goods and services	19,296	
S3.2	Capital goods (e.g., assets, machinery, etc.)	0	
S3.3	Fuel and energy related activities not included in S1 or S2	296	
S3.4	Upstream transportation and distribution	240	
S3.5	Waste generated in operations	51	
S3.6	Business travel	568	
S3.7	Employee commuting	1,490	
S3.8	Upstream leased assets	37	
S3.9	Downstream transportation and distribution	48	
Total		23,297	77

Table 1: Emission data for BGEN Ltd business operations, including biogenic emissions from biomass use in Scope 1 and 2. These biogenic emissions, from materials like wood and biofuels, are considered outside the GHG Protocol scopes as they do not increase net atmospheric CO_2 levels.

Scope 1 – Direct Emissions

In the baseline year of 2022/23, BGEN Ltd emitted **1,063 t of CO_2e** from direct activities (Scope 1 emissions), primarily from:

- **Fuel combustion** in boilers and generators for heating.
- **Industrial processes** using bulk fuels and welding gases.
- **Mobile combustion** in company-owned vans and vehicles.
- **Refrigerant leakage** from air conditioning units.

The van fleet was the largest contributor, generating **616 t CO_2e** (58% of total direct emissions) from over 1.6 million miles driven, representing **2.64%** of the company's overall carbon footprint.

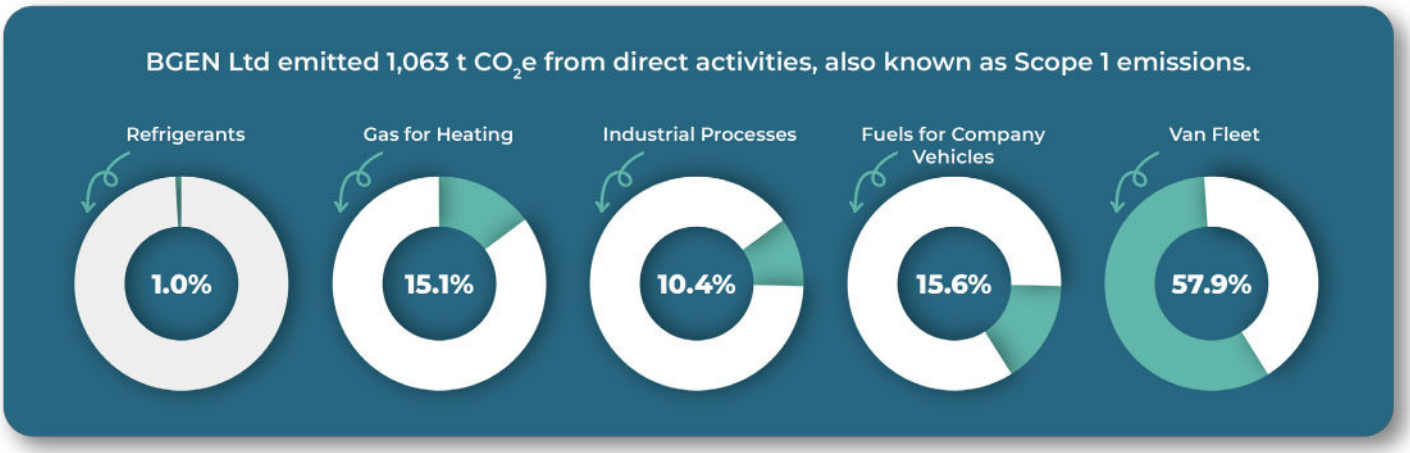

Figure 5: A breakdown of the direct emissions released by BGEN Ltd in the baseline year.

Scope 2 – Indirect Emissions from Energy

In the baseline year of 2022/23, BGEN Ltd demonstrated its commitment to sustainability by closely monitoring its electricity usage. The company's facilities and electric vehicles collectively resulted in **206 t CO_2e** emissions, based on market-based calculations.

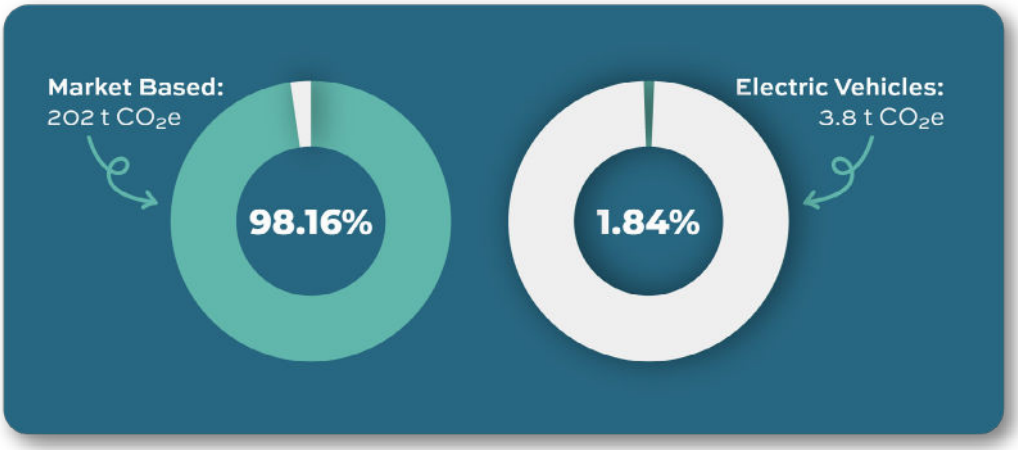

Figure 6: The emissions released by BGEN Ltd' purchase of generated electricity.

Scope 3 – Indirect Emissions

The GHG emissions produced indirectly from BGEN Ltd (excluding Scope 2) are their Scope 3 emissions. This includes all business activities from both upstream and downstream business activities as per the fifteen subcategories given by the GHG protocol.

In total, Scope 3 emissions are responsible for **94.55% (22,028 t CO_2e p.a.)** of BGEN Ltd's carbon footprint, with a significant proportion being from **Purchased Goods and Services; 19,296 t CO_2e per year.**

Per Location

Another way of looking at the greenhouse gas emissions from BGEN Ltd is to compare the emissions from each location owned and controlled by the company. This can help understand how different facilities and activities contribute to the overall emissions and the potential opportunities for reduction.

Firecrest Head Office has replaced the traditional gas boilers with Heating, Ventilation, and Air Conditioning (HVAC) systems that use electricity instead of natural gas for heating and cooling. Additionally, the site's **solar panels** generated **19,339 kWh of electricity** in 2022/23, saving **5.59 t CO_2e**. This renewable energy offset some of the emissions from the grid, contributing to overall carbon reductions.

The chart clearly shows that **St Helens (Fabrication Facility)** is the largest emitter of GHG's among the locations owned or controlled by BGEN Ltd. The facility consumes more natural gas and electricity than any other site, producing **58 t CO_2e per year** from heating and **66 t CO_2e per year** from purchased electricity. This suggests that St Helens has a high potential for reducing emissions by improving energy efficiency, switching to renewable sources, or implementing other mitigation measures. BGEN Ltd should prioritise St Helens as a key project for achieving its carbon reduction goals.

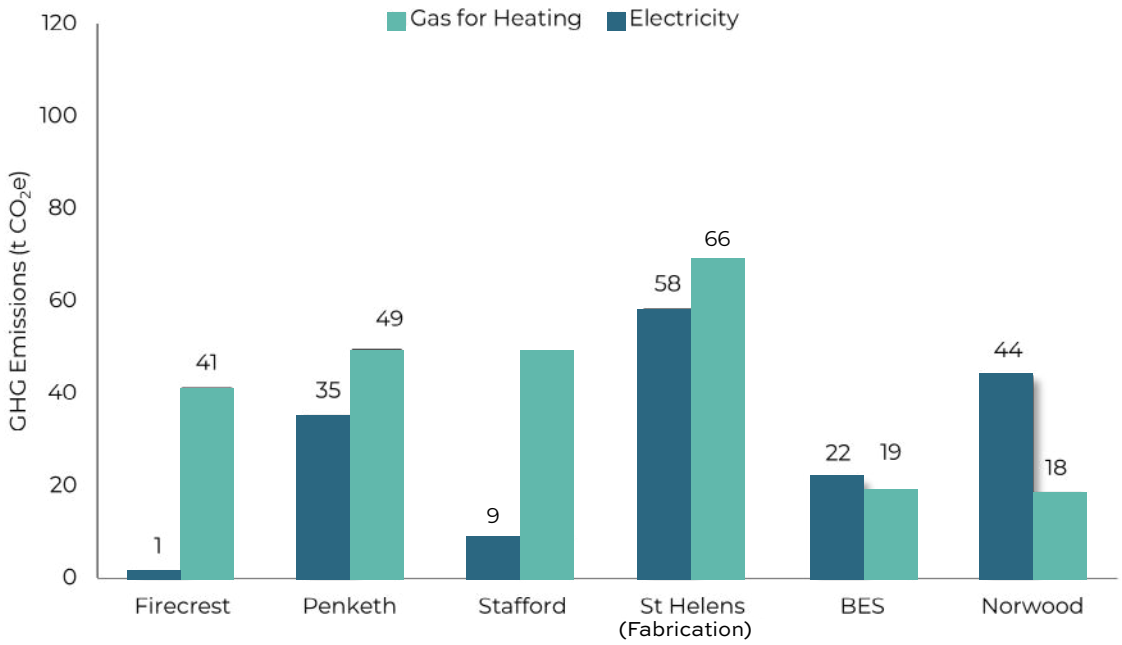

Figure 7: The emissions from gas heating and purchased electricity at each location.

Tracking Emissions Efficiency: Intensity Ratio

To better understand their environmental performance in relation to business growth, BGEN Ltd have chosen to compare GHG emissions annually based on business performance using per million pound of turnover as an intensity ratio. This ratio allows to assess the company's progress in reducing emissions while continuing to scale their business.

Calculation Method	FY 22/23
Carbon Footprint (t CO2e)	23,297
Total Annual Turnover (£M)	187
Carbon Intensity (t CO2e/£M)	125

Table 3: BGEN Ltd's carbon intensity ratio.

A ROADMAP TO NET ZERO

Procure Renewable Electricity

- Ofgem Certified Eco-Tariff to Reduce Market-Based Emissions.
- **Estimated to Reduce Scope 2 by over 90%.**
- BGEN shall also follow Energy Use Intensity Targets to reduce the amount of energy used and correspondingly be responsible for reducing location based emissions as well as the decarbonisation of the national grid.

Reduction Compared to Baseline	Total Reduction
0.9%	0.9% | 23,086 tCO_2e

Replace Natural Gas Boilers with Electric Alternatives

- Options to use electric heating systems or produce bio-gas as a renewable energy source.
- **Estimated to Reduce Scope 1 by 10%**
- Research has confirmed the use of green gas tariffs that will result in further savings.

Reduction Compared to Baseline	Total Reduction
0.8%	1.8% | 22,910 tCO_2e

Reduce Emissions from Employee Travel

- Continue the Employee Transition to EV's and Incentivise Cycle to Work Schemes and Car Sharing.
- **Estimated to Reduce Scope 3 by 10%**

Reduction Compared to Baseline	Total Reduction
4.9%	6.7% | 21,774 tCO_2e

Replace ICE Company Owned Vans with EV's

- Primary focus for BGEN, to reduce emissions from the Van Fleet by beginning with a comprehensive audit of the fleet.
- **Estimations show it can reduce emissions from Scope 1 by 67%**
- Conduct a comprehensive audit of the vehicle fleet to identify the optimal number and type of vehicles needed. Implement a vehicle milage reduction programme. Transition to electric vehicles (EVs) that run on renewable electricity.

Reduction Compared to Baseline	Total Reduction
3.4%	10.1% | 20,978 tCO_2e

Supplier Engagement

- Lack of granularity from EEIO Spend Based Model. A supplier engagement plan to analyse and engage with supplier to calculate emissions and sign up to SBTi shall ensure a reduction in supply chain emissions.
- **Targeting 85% of suppliers by spend is estimated to reduce Scope 3 emissions by 45%**

Reduction Compared to Baseline	Total Reduction
35.1%	45.3% | 12,778 tCO_2e

Near Term Target 2030

Total Reduction
42.0% | 13,540 tCO_2e

Aligning Net Zero to MGroup

The net zero target will be aligned with MGroup following re-baselining activity.

CONCLUSION

From May 1, 2022, to April 30, 2023, BGEN Ltd's total greenhouse gas emissions amounted to **23,297 t CO_2e**. This carbon footprint analysis, conducted by **Tunley Environmental**, is based on comprehensive data provided by BGEN Ltd.

This report includes a detailed breakdown of emissions and **actionable recommendations** to help BGEN Ltd reduce its carbon footprint. By implementing these strategies, BGEN Ltd can take meaningful steps toward **achieving its sustainability goals and enhancing its environmental performance**.

IMPORTANT NOTICE

Tunley Environmental Ltd has prepared this report and any attachments, based on an agreed scope of work, and acts as an advisor to the named Client and exercises all reasonable skill and care in the provision of its professional services, in a manner consistent with the level of care and expertise exercised by consultants in a similar environment.

Reports are commissioned by and prepared for the exclusive use of the named Client. They are subject to and issued in accordance with the agreed terms between the Client and Tunley Environmental Ltd. Tunley Environmental Ltd is not responsible and will not be liable to any other person or organisation for, or in relation to any matter dealt within this Report, or for any loss or damage suffered by any other person or organisation arising from matters dealt with or conclusions expressed in this report (including without limitation), matters arising from any negligent act or omission of Tunley Environmental Ltd, or for any loss or damage suffered by any other party relying upon the matters dealt with or conclusions expressed in this Report.

This report is not intended to be a comprehensive review of the practices of the named recipient nor the viability of its products or services. It is the responsibility of the named recipient to ensure that all its products or services adhere to and are compliant with all applicable laws, regulations and other generally accepted standards of quality and performance. Tunley Environmental Ltd accepts no liability for any failure of the products or services to meet any such standards or for any loss or other damages, (including death or personal injury) caused as a result of any such failure.

When taking any action, Recipients should not rely solely upon the report or the accuracy or completeness of any conclusions and should make their own inquiries and if they are unsure, should obtain independent advice in relation to such matters.

Except where expressly stated, Tunley Environmental Ltd has not verified the validity, accuracy or comprehensiveness of any information supplied to it, used as the background information for the writing of this report. It is assumed that the information provided to Tunley Environmental Ltd was both complete and accurate.

Information contained in the Report is current as at the date of the Report, and may not reflect any event or circumstances which occur after the date of the Report. Tunley Environmental Ltd makes no representation or guarantee that their services or this report will result in any enhancement of the client.

COPYRIGHT STATEMENT: The concepts and information contained in this document (except the client's own copy information) are the property of Tunley Environmental Ltd. Use, copying or distribution to any third party is expressly prohibited. We do not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report or of this document in whole or in part, by anyone other than the addressed recipients. Any such third-party disclosures without the written permission of Tunley Environmental Ltd constitutes an infringement of copyright.

BGEN LTD

NEXT GENERATION ENGINEERING