Speybank Limited t/a Knockendarroch Hotel

Carbon (GHG) Emissions Report

2021

Completed by Carbon Neutral Britain Ltd

30th September 2022

Project No: 03211

Table of Contents

1 - Message from Carbon Neutral Britain™

It has never been more important for businesses to step up and take account of the environmental impact associated with their operations.

"We are delighted to continue our partnership with Knockendarroch Hotel to help identify and offset their environmental impact for 2021 and beyond."

James Poynter
Director - Carbon Neutral Britain

In the UK, businesses account for over 85% of total GHG emissions - making corporate action the number one priority in helping stop climate change.

Looking to do their part for the environment, Knockendarroch Hotel engaged with Carbon Neutral Britain in September 2022, with the ambition to measure and offset their total organisation's emissions - to continue their Carbon Neutral status.

Operating as a hotel and restaurant, it was identified that the main emissions were to occur from the inbound delivery of goods.

2 - Carbon Emissions Summary

Organisation	Knockendarroch Hotel
Reporting Period	1st January 2021 - 31st December 2021
Consolidation Approach	Operational Control
Base Year	2020 - 139.78 tCO2e
Total Emissions	340.77 Tonnes of Carbon Dioxide Equivalent

2.1 Emissions Table

Scope 1

88.18	kg CO2e	Stationary or Mobile Combustion Source
37,881.80	kg CO2e	Mains Gas
-	kg CO2e	Company Owned/Leased Vehicles
-	kg CO2e	Refridgerant Gas Loss Recharge
37,969.97	kg CO2e	Total
37.97	**t CO2e**	**Total (tonnes)**

Scope 2

10,026.75	kg CO2e	Total Organisation Energy Usage on Site
-	kg CO2e	Total Electric Vehicle Energy Usage
10,026.75	kg CO2e	Total
10.03	**t CO2e**	**Total (tonnes)**

Scope 3

-	kg CO2e	Total Organisation Energy Usage WFH
3,944.29	kg CO2e	Organisation Waste
-	kg CO2e	Business Travel (not using owned/leased Vehicles)
2,240.10	kg CO2e	Staff Commuting (not using owned/leased Vehicles)
-	kg CO2e	Business Hotel or Event Activities
233,290.75	kg CO2e	Inbound Delivery of Goods (upstream transportation and distribution)
52,788.46	kg CO2e	Outbound Delivery of Goods (downstream transportation and distribution)
509.11	kg CO2e	Organisation Water Usage
292,772.71	kg CO2e	Total
292.77	**t CO2e**	**Total (tonnes)**

340.77	**t CO2e**	**Total Organisation Emissions**

3 - Context

3.1 The purpose of this report

This Carbon Emission Report will measure and calculate the total Greenhouse Gas (GHG) Emissions produced directly and indirectly from the organisations activities. Compulsory for Large Organisations as part of their Streamlined Energy and Carbon Reporting (SECR), HM Government encourages all organisations to take action and measure their emissions on a voluntary basis - as the most effective tool in monitoring and reducing an organisations climate impact.

GHG Emission (also referred to as Carbon Footprint) Calculating and Offsetting are now the most popular method for businesses to make an environmental impact as part of their Corporate Social Responsibility policies due to the accurate and measured methodologies, providing complete transparency about their climate impact and resulting actions. Annual emissions reports are regularly used by organisations to track their progress in achieving emissions reductions across the business over time, and in many cases helps identify areas within the business that produce the most emissions - as an area to focus and improve.

Most importantly of all, carbon emission reports also help identify an organisations total carbon footprint - measured in tonnes of carbon dioxide equivalent (tCO2e), a set unit to ensure carbon offsetting is accurate, and will reverse the organisations environmental impact to achieve carbon neutral status - increasingly important for customers, shareholders, employees and other stakeholders.

3.2 The Kyoto Protocol Greenhouse Gases (GHGs)

Six Greenhouse Gases are calculated as part this emissions report, known as the six Kyoto Protocol GHGs. These gasses occur the most often as a result of business activities, with the highest Global Warming Potential. For the purposes of emissions reporting, these gases are simplified and measured in the unit of tonnes of carbon dioxide equivalent (tCO2e). The Global Warming Potential (GWP) of these gases are not the same however, which creates the unit equivalence compared to carbon dioxide over a period of 100 years (shown below).

GHG	Formula	GWP (CO^2e)
Carbon Dioxide	CO2	1
Methane	CH4	25
Nitrous Oxide	N2O	298
Hydro fluorocarbons	HFCs	Depends on specific gas
Sulphur hexafluoride	SF6	22,800
Perfluorinated compounds	PFCs	Depends on specific gas

3.3 Calculating Emissions & Emissions Factors

The emissions calculations have been made using client-supplied activity data, with assumed full disclosure of all relevant and necessary information. The data received (such as energy usage in Kwh, or vehicle mileage) are then multiplied by the relevant emissions factors from published and reputable sources. Depending on the needs of the organisation the emissions factors used in some cases are scientific research journals or independent studies, but in most cases are from HM Government publications. Most commonly used - *UK Government Conversion Factors for Company Reporting (Year: 2022, Expiry: 08/06/2023, Version 2.0) - DBEIS / DEFRA)*. Any assumptions or estimations of relevant data are published within this report.

3.4 Reporting Standards

GHG emissions reports are most widely carried out in accordance with the ISO 14064:1-2018 and GHG Emissions Protocol Accounting and Reporting Standards, whose methodologies have been used in the creation of this report.

The International Organisation of Standardisation (ISO) created the ISO 14064 standard in 2006, updating in 2018 to specify the principles and requirements at the organisational level for the quantification and reporting of greenhouse gas (GHG) emissions and removals. It includes requirements for the design, development, management, reporting and verification of an organization's GHG inventory.

The "Greenhouse Gas Protocol - Corporate Accounting and Reporting Standard" (GHG Protocol, 2011) developed in a partnership of the World Business Council for Sustainable Development (WBCSD) and the World Resource Institute (WRI) follow a similar methodology mirroring those of the ISO standard.

Using the two most widely recognised and used emission standards in the world, ensure all measurements, calculations and subsequent offsetting are completed to the most regulated and accurate standards possible.

3.4 Scopes of Emissions

Using the ISO 14064 and GHG Emissions Protocol Standards, business emissions are identified using three scopes of emissions:

Scope 1 (Direct emissions)

Activities owned or controlled by the organisation that release emissions straight into the atmosphere.

For manufacturing business these would be emissions from equipment and machinery used in production. Businesses that own or lease vehicles are also included within scope 1. For many office-based businesses, scope 1 emissions are usually very small.

Scope 2 (Energy indirect)

Emissions being released into the atmosphere associated with the consumption of purchased electricity, heat, steam and cooling. These are indirect emissions that are a consequence of the organisation's activities - but occur at sources that the business does not own or control.

These emissions would be the energy usage by the organisation and staff working at the business, or from home.

Scope 3 (Other indirect)

Emissions that are a consequence of business activity, which occur at sources which are not owned or controlled, which are not classed as scope 2 emissions.

Scope 3 emissions can be quite broad, including areas such as waste management, business travel, staff commuting, events, and the emissions produced from delivery to and from the organisation (including third party delivery services).

3.5 Radiative Forcing

Radiative forcing (RF) is a measure of the additional environmental impact of aviation. These include emissions of nitrous oxides and water vapour when emitted at high altitude.

HM Government guidance recommends organisations should include the influence of radiative forcing RF in air travel emissions to capture the maximum climate impact of their travel habits. As such, radiative forcing has been included within the emission factor calculations of air travel within this report and future reports, where applicable.

3.6 Quality and Accuracy

The accuracy of a GHG assessment is directly related to the quality of the activity data provided, and for this assessment and report, 'primary data' (such as electrical usage in Kwh for the reporting period), have been used wherever possible. 'Secondary data' in the form of estimates, extrapolations and/or industry averages has been used when primary data is not available - to provide as accurate estimates of emissions as possible.

In addition, this report has been completing following the WRI GHG Protocol principles of relevance, completeness, consistency, transparency and accuracy.

4 - Methodology

4.1 Business Introduction

Carbon Neutral Britain was engaged by Knockendarroch Hotel in order to measure and calculate the organisation's total carbon footprint for 2021, with the purpose of offsetting their total organisation emissions - to continue their Carbon Neutral status.

As a hotel and restaurant, it was identified the main emissions occurred from the inbound delivery of goods, responsible for 233.29 tCO2e of emissions. Other large sources of emissions occurred from outbound delivery of goods, mains gas, and electricity used on site.

4.2 Operational Boundary and Data

Using the operational control consolidation approach was determined as the best method for Knockendarroch Hotel, due to the standard business structure and business practices. As a result, the following scope of data was collected.

Scope 1 - Stationary and Mobile Source Emissions (equipment and quantity combusted), Company Owned and Leased Vehicles (vehicle type and distance travelled), Refrigerant Gas Losses (refrigerant type and new/disposed units) for the organisation only.

Scope 2 - Energy (electricity, imported heat, steam in kwh) from the office and vehicles, using the location based method.

Scope 3 - Homeworking Energy (Days), Water (consumption and waste volume), Waste (landfill, recycled and composted weight), Business Travel (type and distance), Staff Commuting (average distance and type), Hotel Stays (UK, Europe or Worldwide days), Inbound/Outbound delivery (weight/volume, type and source).

4.3 Assumptions and Estimations

Where primary emissions data could not be collected, the following assumptions and estimations were used:

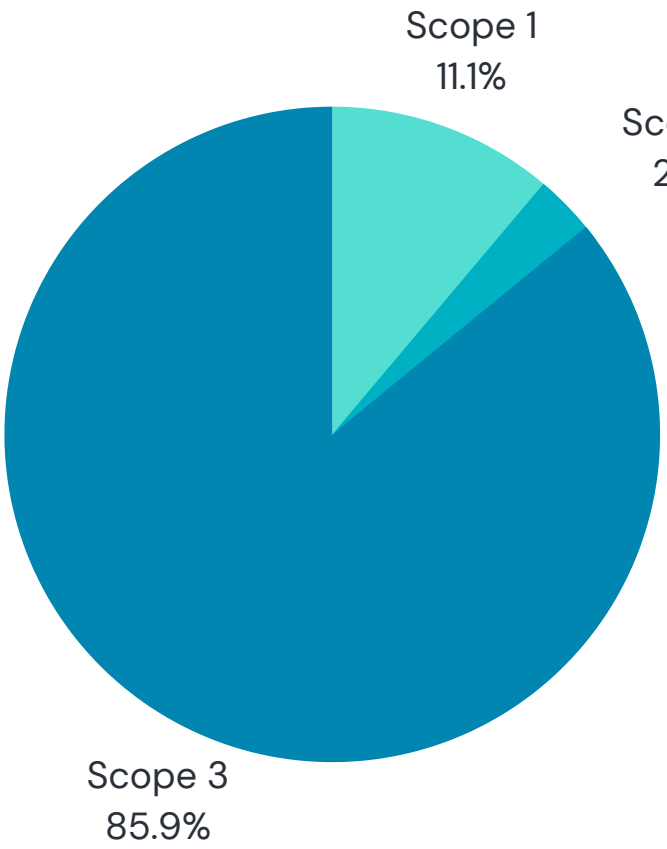
- Vehicle emissions were calculated using Defra vehicle categories and HM Government Emission Factors (2021).
- Scope 3 inbound and outbound delivery emissions were calculated using estimated weight and distance, using UK DEFRA freight emission factors for the predominant delivery type.
- Any incidental emissions less than 1% of the total organisation's carbon footprint were not included within this report.

5 - Results and Impact

5.1 Summary

Knockendarroch Hotel Carbon (GHG) Emissions

Reporting Period - 01/01/21 - 31/12/21



37.97
Scope 1
Direct Emissions

10.03
Scope 2
Energy Indirect

292.77
Scope 3
Indirect Other

Total Carbon Footprint

340.77 tCO2e

GHG Emissions 2021 - 340.77 tCO2e
GHG Emissions per FTE - 22.71 tCO2e

Completed 30th September 2022

5.2 Emissions by Scope

37.97

Scope 1
Direct Emissions

The main Scope 1 emissions occurred from mains gas combustion during the reporting period. Other small emissions occurred from backup generator combustion.

10.03

Scope 2
Energy Indirect

All Scope 2 emissions occurred from electricity consumption from the organisation.

292.77

Scope 3
Indirect Other

The main Scope 3 emissions occurred from the inbound delivery of goods, responsible for 233.29 tCO2e emissions. Other emissions occurred from staff commuting, outbound delivery of goods, and water usage.

5.4 Carbon Neutral Status

In October 2022, Knockendarroch Hotel offset their carbon footprint to become certified as a Carbon Neutral Business by Carbon Neutral Britain.

As certification awarded by an external organisation, it provides assurance that the carbon neutral claim is robust and credible, following calculation using the ISO 14064 and GHG Protocol Emissions Standard principles of relevance, completeness, consistency, transparency and accuracy.

Carbon Neutral Status has been awarded to the organisation for a period of 12 months.

It is recommended the organisation completes an annual calculation of its environmental impact and emissions in 2022, to further monitor and evaluate changes after the impact of Covid-19, in addition to offsetting and maintaining carbon neutral status.

5.4 Carbon Offsetting Projects

Through the Carbon Neutral Britain Climate Fund™, Knockendarroch Hotel has offset its total carbon emissions through internationally certified carbon offsetting projects.

Certified via the Verra - Verified Carbon Standard (VCS), the Gold Standard - Voluntary Emission Reductions (VER) or the United Nations - Certified Emission Reductions (CER) programmes, the projects have also been selected based on their direct and indirect impact around the world - not just in offsetting, but also in supporting education, employment and clean water, as well as having net positive impact on the local wildlife and ecology.

As the three largest, and most regulated voluntary offsetting standards used by organisations and even countries in their emissions reductions - all measurements and tonnes of CO2e offset are accurate, and verified.

An example of projects supported include:

Project 1088: Hydroelectric Power in Chile

Project 1025: Wind Power in the Philippines

Project 1213: Wind Power in China

Project 1084: Rice Husk Power in Cambodia

6 - Contact

2022

The Year to Make a Difference

Help Support Climate Action

OFFICE ADDRESS

51 Eastcheap, Billingsgate
London, EC3M 1JP

WEBSITE

carbonneutralbritain.org

EMAIL

business@carbonneutralbritain.org

Carbon Neutral Britain™