



Bryce Energy Services
Your Expert Energy Consultant

Carbon Footprint Online Calculator To Scope 1, 2, and 3



Hello John Smith,

This is your estimated business Carbon Footprint in tonnes of CO₂e as entered on Bryce Energy Services - Carbon Calculator.

Total Estimated Carbon Footprint: 1,061.28 tCO₂e

Your Business Name: Test Business

Your Data Reference: 2021 Carbon Data

Total Emissions	Scope 1: Direct	Scope 2: Electric	Scope 3: In-Direct
1,061.28 tCO₂e	99.93 tCO₂e	103.93 tCO₂e	857.42 tCO₂e
Percentage	9.42 %	9.79 %	80.79 %

GHG Protocol Scope 1 - Direct Emissions

These are the GHG emissions your business is directly responsible for.

Item	Units Measured	kg CO ₂ e per Unit	Emissions
01 Natural Gas	450,000 kWh	0.18316	82.42 tCO ₂ e
02 Diesel Fuel	3,100 Litres	2.70553	8.39 tCO ₂ e
03 Petrol Fuel	1,760 Litres	2.33969	4.12 tCO ₂ e
04 F-Gases	5 kg	1,000	5.00 tCO ₂ e

Total Scope 1: 99.93 tCO₂e

GHG Protocol Scope 2 - Supplied Energy Emissions

These are the GHG emissions your business is directly responsible for from metered Electricity, other supplied heat, and Electric Vehicles.

Item	Units Measured	kg CO2e per Unit	Emissions
01 Mains Electricity UK	489,460 kWh	0.21233	103.93 tCO2e
02 Electric Vehicle Charging	0 Miles	0.08097	0.00 tCO2e

Total Scope 2: 103.93 tCO2e

GHG Protocol Scope 3 - Indirect Emissions

These are the GHG emissions your business is indirectly responsible for such as business Travel and Water.

Scope 3.01 – Use of Water

Item	Units Measured	kg CO2e per Unit	Emissions
Water Supply In	6,890 litres	0.149	1.03 tCO2e
Water Waste Out	6,890 Litres	0.272	1.87 tCO2e

Scope 3.02 – Business Travel

Item	Units Measured	kg CO2e per Unit	Emissions
Miles Average Car	158,000 Miles	0.28053	44.32 tCO2e
Hotel Stays in UK	63 Nights	13.9	0.88 tCO2e
Short Haul Flights:	6,450 km	0.15102	0.97 tCO2e
S3.02 Total Business Travel			46.17 tCO2e

Scope 3.03 – Staff Commuting Travel

Item	Units Measured	kg CO2e per Unit	Emissions
Commute by Average Car	1,000 Miles	0.27596	0.28 tCO2e
Commute by Train	1,000 km	0.03549	0.04 tCO2e
Commute by U-Train / Tram	1,000 km	0.028	0.03 tCO2e
Commute by Bus	1,000 km	0.10227	0.10 tCO2e
S3.03 Total Staff Commuting			0.45 tCO2e

Scope 3.04 – Transportation and Distribution of Goods

Item	Units Measured	kg CO2e per Unit	Emissions
Freight by Van	1,000 Miles	0.38811	0.39 tCO2e
Freight by HGV	1,000 Miles	1.39058	1.39 tCO2e
Refrigerated HGV	1,000 Miles	1.62852	1.63 tCO2e
Container Ship	1,000 tonne.km	0.01614	0.02 tCO2e
S3.04 Total Transportation and Distribution of Goods			3.43 tCO2e

Scope 3.05 – Business Waste Disposal

Item	Units Measured	kg CO2e per Unit	Emissions
Waste to Landfill	67 tonnes	467.0458	31.29 tCO2e
Waste to Recycling	24 tonnes	21.293566	0.51 tCO2e
S3.05 Total Business Waste Disposal:			31.80 tCO2e

Scope 3.06 – Electricity Transmission and Distribution Losses

Item	Units Measured	kg CO2e per Unit	Emissions
3.06 Electricity T&D Loss	489,460 kWh	0.01879	9.20 tCO2e

Scope 3.07 – Fuels Well To Tank (WTT)

Item	Units Measured	kg CO2e per Unit	Emissions
Natural Gas WTT:	450,000 kWh	0.03135	14.11 tCO2e
Diesel 100% Mineral WTT	3,100 litres	0.62874	1.95 tCO2e
Petrol 100% Mineral WTT	1,760 litres	0.60283	1.06 tCO2e
UK Electricity WTT	489,460 kWh	0.00489	2.39 tCO2e
S3.07 Total Well to Tank (WTT) Fuel			19.51 tCO2e

Scope 3.08 – End of Life Goods Disposal

Item	Units Measured	kg CO2e per Unit	Emissions
Waste to Landfill	50 tonnes	467.0458	23.35 tCO2e
Waste to Recycling	25 tonnes	21.293566	0.53 tCO2e
S3.08 Total End of Life Goods Disposal			23.88 tCO2e

Scope 3.09 – Purchased Capital Goods

Item	Units Measured	kg CO2e per Unit	Emissions
3.09 Purchased Capital Goods	1000 kg	1	1.00 tCO2e

Scope 3.10 – Business Franchises

Item	Units Measured	kg CO2e per Unit	Emissions
3.10 Business Franchises	£ 100,000.00 GBP	0.5	50.00 tCO2e

Scope 3.11 – Business Investments

Item	Units Measured	kg CO2e per Unit	Emissions
3.11 Investments and Pensions	£ 100,000.00 GBP	0.5	50.00 tCO2e

Scope 3.12 – Suppliers of Goods and Services.

Item	Units Measured	Percentage Factor	Emissions
3.12 Suppliers to Business	442.20 tCO2e	70 %	619.08 tCO2e

Very rough estimate for Scope 3, Supplier carbon footprint is to add a percentage factor based on the percentage of your business turnover associated with purchasing goods, excluding those of Scope 1 and Scope 2 that have already been entered.

Total Scope 3: 857.42 tCO2e

Reference Documents

Some reference documents that will help, available in many languages.

Corporate Standard - The GHG Protocol Corporate Accounting and Reporting

Standard provides requirements and guidance for companies and other organizations preparing a corporate-level GHG emissions inventory.

The standard covers the accounting and reporting of seven greenhouse gases covered by the Kyoto Protocol – carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PCFs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). It was updated in 2015 with the Scope 2 Guidance, which allows companies to credibly measure and report emissions from purchased or acquired electricity, steam, heat, and cooling.

<https://ghgprotocol.org/corporate-standard>

Technical Guidance for Calculating Scope 3 Emissions

This guidance document serves as a companion to the Scope 3 Standard to offer companies practical guidance on calculating their scope 3 emissions. It provides information not contained in the Scope 3 Standard, such as methods for calculating GHG emissions for each of the 15 scope 3 categories, data sources, and worked examples.

<https://ghgprotocol.org/scope-3-technical-calculation-guidance>

UK Government GHG Conversion Factors for Company Reporting

From: Department for Business, Energy & Industrial Strategy Published 1 May 2013 Last updated 2 June 2021 — In order to report the greenhouse gas emissions associated with an organisation's activities, the carbon emissions need to be converted into 'activity data' such as: distance travelled, litres of fuel used, tonnes of waste disposed. The conversion factor spreadsheets provide the values to be used for such conversions, and step by step guidance on how to use them.

<https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

**Bryce Energy Services**
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Thank you for using our Calculator.
Make an appointment to chat about how you
can plan and achieve NetZero for your business.

NOTE: This calculator is an estimate of your carbon footprint based on data provided, so we can accept no liability for its accuracy.

Any comments you have or suggestions for items to include in our carbon footprint calculator please let us know.

For further information or help to further detail your carbon footprint calculations, and improve your business energy efficiency, and to create a plan for carbon neutrality, please contact us.

Email:	Telephone:	Website:
info@BryceEnergyServices.com	0191 580 6543	http://www.BryceEnergyServices.com

Regards,

Bryce Energy Services.

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