

The Environmental Footprint prepared for CHIGWELL CONSTRUCTION (LONDON) LTD contains a summary of the information submitted to the Trucost Environmental Register. By combining this data with our environmental profiling model, Trucost has identified the environmental key performance indicators (KPIs) that are relevant to CHIGWELL CONSTRUCTION (LONDON) LTD.

Using the KPI approach, CHIGWELL CONSTRUCTION (LONDON) LTD can focus on those areas of its overall environmental performance which are most likely to reduce costs, improve efficiency, manage risk or meet customer and regulatory requirements.

The report also provides advice on how CHIGWELL CONSTRUCTION (LONDON) LTD can improve both its environmental reporting and its overall performance. Membership to the Trucost Environmental Register is on an annual basis and you can update your submission at any time during your membership to produce a new Environmental Footprint.

1. Summary

CHIGWELL CONSTRUCTION (LONDON) LTD has confirmed that the revenue of the organisation can be defined according to the sectors identified below.

Sector	Percentage of Total Revenue
Residential maintenance and repair	75.00%
Nonresidential maintenance and repair	18.00%
Other nonresidential structures	7.00%
	<u>100.00%</u>

The Financial Profile below is a summary of the latest data that CHIGWELL CONSTRUCTION (LONDON) LTD has submitted to the Trucost Environmental Register. Trucost uses this information to identify the relevant environmental KPIs. If this data is not accurate, please revisit the Register to update your details. Information contained in the Footprint Summary is described in the sections following.

Financial Profile	
Reporting Currency:	GBP
Turnover (GBP mn):	8.00
Reporting Year (Year End):	2009

Footprint Summary	
Carbon Footprint (GHGs tonnes):	1,882.00
Carbon Footprint Quintile:	Fourth
Disclosure Rating:	★★★★★

Carbon Footprint

The calculation of your Carbon Footprint includes the total set of greenhouse gases emitted by operations that are owned or controlled by CHIGWELL CONSTRUCTION (LONDON) LTD as well as those emissions that occur as a consequence of the goods and services you purchase.

Organisations of different sizes in different sectors and geographies will have vastly different Carbon Footprints. To enable comparison, Trucost divides total emissions by revenue to give us carbon intensity per unit of revenue. Compared to other organisations, CHIGWELL CONSTRUCTION (LONDON) LTD's carbon intensity is relatively high (fourth quintile) for a business operating in the sectors identified above.

Disclosure Rating

- ★ Less than 20% of impacts disclosed. Collecting data such as electricity usage will greatly improve the rating.
- ★ ★ Between 20% - 40% of environmental impacts disclosed. Can easily be improved.
- ★ ★ ★ Between 40% - 60% of environmental impacts disclosed.
- ★ ★ ★ ★ An above average level of environmental disclosure between 60% - 80% of data.
- ★ ★ ★ ★ ★ Highest possible level of environmental disclosure, above 80%.

Disclosure Rating

The disclosure rating is based upon the percentage of CHIGWELL CONSTRUCTION (LONDON) LTD's total environmental impacts disclosed in the Environmental Register. A five star disclosure rating demonstrates a strong commitment to environmental reporting. For help communicating environmental credentials to existing and potential customers, please contact Trucost.

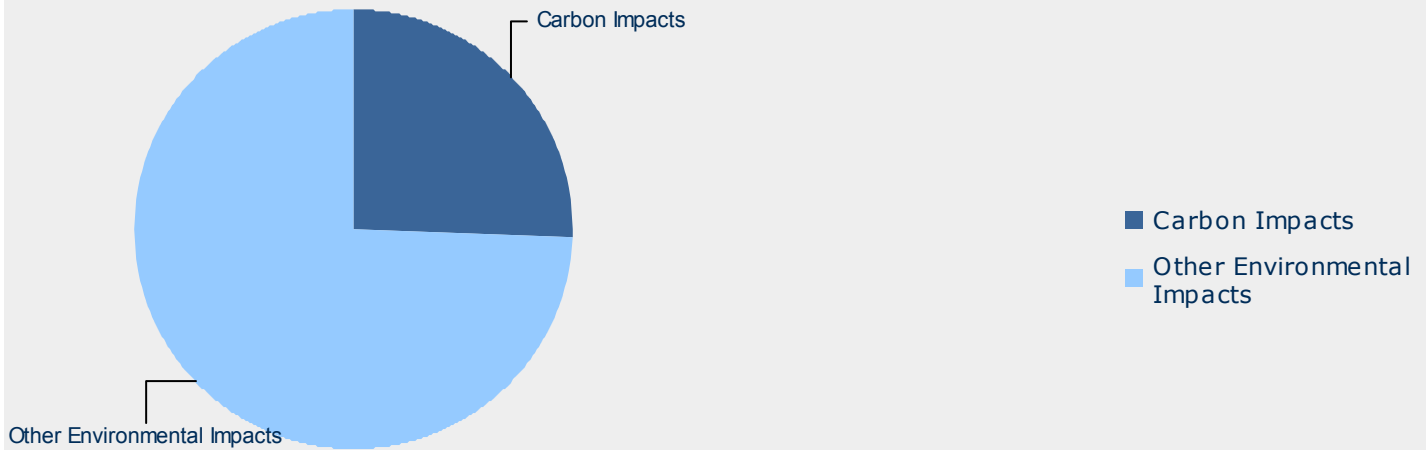
Environmental Footprint

In addition to greenhouse gas emissions, companies can have other environmental impacts through water use or the disposal of waste for example.

A calculation of the environmental impacts disclosed within the Trucost Environmental Register combined with Trucost's environmental profiling model, indicates that CHIGWELL CONSTRUCTION (LONDON) LTD sits within the fifth quintile. This is very high compared to other organisations operating in the sectors identified.

Greenhouse Gas Emissions Versus Other Environmental Impacts

This chart shows greenhouse gas emissions as a proportion of total environmental impacts.



2. Key Performance Indicators

Trucost has identified the following two environmental impacts (or Key Performance Indicators) that are likely to be relevant to CHIGWELL CONSTRUCTION (LONDON) LTD.

Key Performance Indicators

1. Greenhouse Gases
2. Waste (Landfill, Incinerated and Recycled)

There are many hundreds of environmental impacts. These impacts have been grouped into Key Performance Indicators (KPIs). KPIs are designed to help companies report only the environmental impacts that are relevant to them.

In the sections below, Trucost has reviewed CHIGWELL CONSTRUCTION (LONDON) LTD's reporting against these two KPIs. Each KPI has been defined together with actions that may help to improve reporting and reduce emissions.

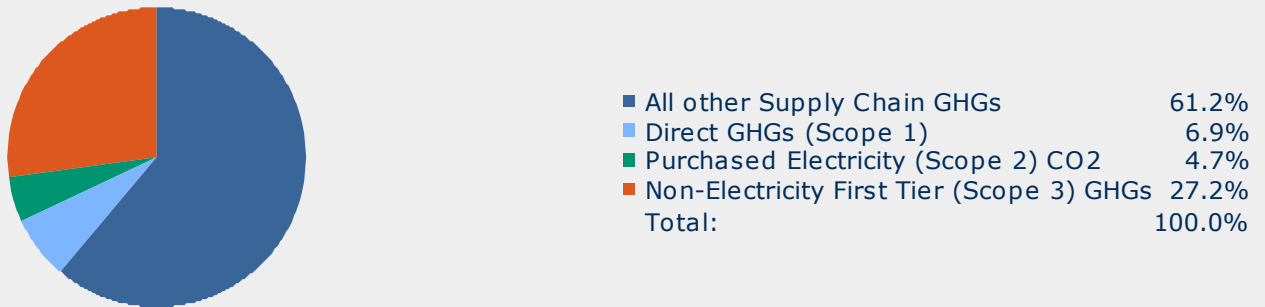
3. Review Current Reporting

1. Greenhouse Gases

Virtually all business processes emit carbon. The use of electricity, water, heating or transportation, for example, all result in the release of Greenhouse Gases. Greenhouse Gases are described according to the Greenhouse Gas Protocol, which defines three 'scopes' for reporting purposes.

- Scope 1: emission of GHG's from sources directly owned or controlled by the company
- Scope 2: emissions that arise from purchased electricity consumed in owned or controlled equipment or operations
- Scope 3: all other GHG emissions including those from business travel and supply chains.

Greenhouse Gas emissions



This chart breaks down these emissions by their source, i.e. direct and indirect. Where data has not been disclosed by CHIGWELL CONSTRUCTION (LONDON) LTD in the Trucost Environmental Register or by public disclosure, likely impacts have been calculated using Trucost's environmental profiling model. This model calculates impacts based on the sector/s that a company conducts business within and the size of the business.

GHG emissions from CHIGWELL CONSTRUCTION (LONDON) LTD's supply chain form the largest source overall.

Greenhouse Gases	Quantity CO2e* (Tonnes)	Data Source
Scope 1 (CO2e)	145.00	
Aircon & Refrigerants (HFCs)	3.00	Trucost Calculated
Carbon Dioxide	124.00	Declared
Dinitrogen Oxide (Nitrous Oxide)	18.00	Trucost Calculated
Scope 2 (CO2e)	101.00	
From supplied electricity	101.00	Declared
Scope 3 (CO2e)	3.00	
Air transportation	2.00	Declared
Rail transportation (Diesel)	1.00	Declared
All Remaining Scope 3	1,630.00	
All Remaining Supply Chain CO2	1,630.00	Trucost Calculated
Grand Total:	1,880.00	

* The six main Greenhouse Gases are carbon dioxide (CO2), Methane (CH4), Nitrous Oxide (N2O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs); and Sulphur Hexafluoride (SF6). Collectively, these can be expressed as CO2

Definition: Greenhouse Gas Emissions

Greenhouse gases (GHGs) are so called because they contribute towards the greenhouse effect. Virtually all business processes emit these gases. There are six main GHGs regulated by the Kyoto protocol. These are Carbon Dioxide (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur Hexafluoride (SF₆). The relative contributions are calculated using the Global Warming Potential index published by the Intergovernmental Panel on Climate Change (IPCC) based on radiative properties, molecular weight and lifetime in the atmosphere. These are usually represented as carbon dioxide equivalents (CO₂e).

Actions To Improve Greenhouse Gas Emissions Reporting

- **GHG** emissions should be reported in metric tonnes emitted per annum individually. GHGs can be measured by recording emissions at source by continuous emissions monitoring or by estimating the amount emitted using activity data (such as the amount of fuel used) and applying conversion factors. For instance, factors can be used to calculate the amount of CO₂ emitted as a result of burning a particular quantity of oil in a heating boiler. Use conversion factors recommended by a national environmental body such as The Environmental Protection Agency in the US and DEFRA in the UK (<http://www.trucost.com/defrakpi.html>). Conversion protocols for a number of national and international agencies are available from Trucost.
- **Collect** kWh electricity use by country.
- **Collect** fuel type and quantity consumed in building heating and operation and in machinery equipment use.
- **Collect**, if relevant, fuel type and quantity use for company-owned vehicles.
- **Collect** data on the type and quantity of refrigerant emissions emitted or leaked.
- **In** certain industrial sectors, a company's business operations may give rise to process emissions that need to be measured, such as from cement manufacturing and waste treatment. If this is relevant to your business, there are industry-specific guidelines available to help calculate these process emissions.

Actions to Reduce Greenhouse Gas Emissions

- **Engage** and incentivise employees. Assign a member of staff to monitor procedures; get senior managers involved in energy management and keep staff motivated to help implement energy saving measures and to review progress at regular intervals.
- **Computers** - switch off computers, monitors, printers, etc when not being used; use laptops instead of desktop computers - they use about 90% less energy.
- **Heating** - avoid heating unused space like storerooms and corridors; properly maintain heating equipment; check that thermostats are set correctly; turn off or reduce heating outside of working hours.
- **Upgrade** existing equipment. When you buy equipment, consider buying the most energy efficient option. Energy consumption can vary greatly depending on equipment age, maintenance, model and manufacturer. Consider the long-term energy costs for your equipment.
- **Lighting** - use energy efficient, compact fluorescent light bulbs; maximise natural lighting; switch off lights in empty rooms; consider fitting presence detectors.
- **Transport** - move freight by rail or water instead of road or air; purchase fuel efficient vehicles; reduce business travel - use communication technology like video conferencing.

Waste (Landfill, Incinerated and Recycled)

Waste (Landfill, Incinerated and Recycled)	Quantity (Tonnes)	Data Source	Estimated Damage Cost (GBP)*
Landfill (Non-Hazardous)	30 t	Trucost Calculated	896
Incineration (Non-Hazardous)	8 t	Trucost Calculated	419
Total	38 t		1,315

Definition: Waste (Landfill, Incinerated and Recycled)

-Recycling: Waste is sent to a recycling facility and reused. In energy terms, this is of varying efficiency – recycling aluminium is 95% more energy efficient than producing virgin aluminium, recycling glass is 50% more energy efficient than producing virgin glass and recycling paper is 60% more energy efficient than producing virgin paper. Recycling also uses far less raw materials and usually has less impact on the environment than using virgin materials. For waste to be recycled it must be sorted and the necessary infrastructure of recycling facilities must exist.

-Incineration: Waste is combusted at very high temperatures. Incineration will predominantly release large amounts of Carbon Dioxide and other emissions such as Nitrogen Oxides (NO_x), Sulphur Dioxide (SO₂) and ash. Ash often contains concentrated amounts of heavy metals and can be difficult to dispose of. Incinerated waste is regulated by the Waste Incineration Directive.

-Landfill: Waste is placed in a large pit, which is eventually covered. Large amounts of organic-based matter (including paper) will slowly decompose in landfill sites and release methane, which is a potent Greenhouse gas. Methane released at landfill sites should be captured and flared off, or fed into biogas engines to generate power. There is also the potential for pollutants to leach out of landfill sites and into local water supplies (although landfill sites should be designed to prevent this from happening). Finally, landfill sites emit odours and are visually unappealing and so are unpleasant to live near.

Waste is broadly split into three categories: hazardous, non-hazardous and inert. Hazardous waste is covered in greater detail by other KPIs. Inert waste includes construction waste, such as rubble, and is normally co-disposed into landfill with municipal non-hazardous waste. Non-hazardous waste includes municipal (e.g. household) waste and office waste such as paper, cardboard, plastic & metal packaging and organic materials. There are three main disposal routes for non-hazardous waste:

Actions to improve reporting

- **Waste** can be measured by estimating the number and weight of rubbish bags that leave the business over a set period of time. If the waste is sorted prior to disposal, then more detailed measurement of specific waste (e.g. tonnes of glass) can be made or waste can be treated as a general category. Whether it is incinerated, sent to landfill or recycled will depend on whether the company disposes of waste itself or uses a waste management company. In either case the information as to how the waste was disposed of should be easily obtained.
- **Waste** should be reported in metric tonnes per annum (in the UK many companies will already be recording this data as the UK landfill tax is charged per tonne). Where possible, waste should be broken down into separate categories (e.g. paper, glass, aluminium) and the final route of disposal reported (e.g. 50% to landfill, 30% incinerated, 20% recycled). If an estimation method has been used this should also be reported.
- **Regulations** within the EU are based on a hierarchical approach that aims to prevent waste generation, encourage reuse and recycling, regulate treatment processes such as incineration and discourage any final disposal to landfill.

Actions to Reduce Impacts

- **Reuse:** Reuse paper, envelopes, bubble wrap, packaging, etc; refill toner and ink-jet cartridges.
- **Reduce:** buy only what you need, control stock and look to streamline processes across departments; ask suppliers to use less heavily packaged products and to take away excess packaging when they deliver.
- **Recycle:** donate or sell working EEE to be reused; make it easy for your staff to recycle - for example, put extra recycling bins in key areas.

5. Update Submission

CHIGWELL CONSTRUCTION (LONDON) LTD has input all the data required to achieve a five star rating in the Trucost Environmental Register.

It is possible to make your submission available to other customers. Please contact Trucost for more details.

Find out more about Trucost Corporate Services by visiting our website www.trucost.com or contacting the Trucost Helpline:

Tel: +44 (0) 20 7856 0660

Email: ter@trucost.com



TRUCOST^{PLC}

This is to certify that CHIGWELL CONSTRUCTION (LONDON) LTD is a member of Trucost's Environmental Register (TER).

CHIGWELL CONSTRUCTION (LONDON) LTD has submitted data to the Trucost Environmental Register and has achieved a five star rating.

Trucost Environmental Register

CHIGWELL CONSTRUCTION (LONDON) LTD

Carbon Footprint

1,882.00 tonnes



Simon Thomas
Chief Executive of Trucost

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<http://ter.trucost.com>

Trucost Plc is a world leading environmental data provider which helps companies, investors and Governments to understand the environmental impacts of business activities, in financial as well as quantitative terms.

Founded in 2000 Trucost has unrivalled experience in environmental performance analysis, including being commissioned by UK Government to write the environmental reporting guidelines for business.

Services for companies

With the world's largest and most comprehensive database of corporate environmental emissions, Trucost helps companies measure and reduce their environmental impacts, quickly and cost effectively using routinely available business information.

Alongside environmental risk management and reporting considerations, establishing your company's baseline emissions profile also allows energy and resource efficiency improvements to be identified and cost savings to be achieved.

Reflecting regulatory requirements in many jurisdictions, Trucost is also able to provide an assurance service to ensure that published emissions measures are robust and are reported in line with international standards.

Trucost has worked with leading multinational companies in a range of business sectors including Avis, Bloomsbury Publishing, BSKYB, Pace Micro Technology, Compass Group PLC, LogicaCMG, Legal & General, Prudential, Ryanair, Total SA, Gate Gourmet and Williams Lea.

"Working with Trucost has enabled us to measure our global environmental footprint and effectively manage associated business risks. Trucost have provided us with recommendations to improve our environmental performance to cut our operating costs and to improve the efficiency of our business units. Trucost's understanding of the regulatory environment has been vital in helping us plan for anticipated regulations across the globe, and also take advantage of government incentives to help us improve our environmental impacts"

Daniel Halter, Group Risk and Insurance Manager at Gate Gourmet.

Research for investors

Trucost helps investors, fund managers and analysts understand how environmental issues could affect the performance of their investments.

Trucost's investor clients include Deutsche Bank, UBS, Commerzbank, London Pension Fund Authority, Crédit Agricole Asset Management, Environment Agency Pension Fund, Fond de Réserve pour les Retraites (FRR), Fortis Investment Management, GLG Partners, Governance for Owners, Henderson Global Investors, Hermes Pensions Management Ltd, Morley Fund Management, VicSuper and Merrill Lynch.

Mercer Investment Consulting *"The interest being shown in Trucost's research helps to show the speed at which the climate change debate is moving."*

To find out more about the Trucost methodology or how Trucost can help you improve your environmental performance, please contact John Martin on 020 7160 9806 or email john.martin@trucost.com.

www.trucost.com

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