

Compliant calculation methodology for Quality Assurance Standard



Relevant Clear Models:

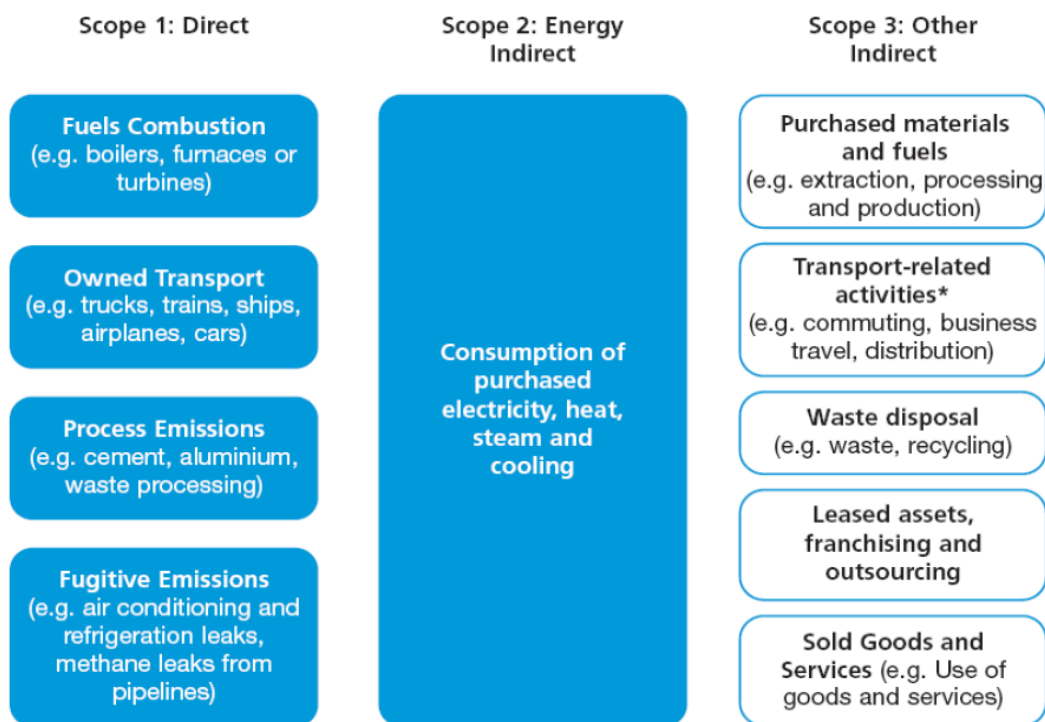
- Clear Business Footprint Audit v13.0
- Clear's Carbon Neutrality System v13.0

Data source used for emissions factors: DECC/ DEFRA Greenhouse gas conversion factors for company reporting – 2017 guidelines updated in August 2017.

Methodology and Assumptions

- [Factors Source: UK Government 2017 factors](#) which are the property of BEIS
- Throughout this workbook all emissions figures are tonnes CO₂e, in line with the emission factors used in the calculators.
- In cases where both direct and indirect emissions are available, we use "All Scopes" - All emissions from Scope 1 or 2 and Scope 3 as defined by the GHG Protocol.
- These figures may include carbon footprints for the extraction, processing and production of fuels, their transport disposal and other activities not directly present at point of use.
- If you wish to just use Scope 1 & 2 figures, please contact Clear directly for factor adjustment
- Further detail on GHG Scopes is included below:

Summary of the main types of emissions to be reported under each scope



General / Country of Use

- When a country other than the UK is selected, only the CO₂e figures for electricity generated are changed. The figures used are "Energy Consumed" - direct Emissions only - sheet "UK Electricity" in the Conversion Factors
- As a result, the accuracy when used in other countries than the UK for local reporting may be impacted.
- An example of where significant differences may lie is in the transport Emissions Factors, which will be different due to local differences in the vehicle fleet itself, driving conditions and typical vehicle loading factors/occupancy
- While results will be indicative, please contact Clear directly to discuss a tailored footprinting service using more accurate figures.

Energy

- All factors used are Direct Emissions only (Scope 2 for electricity, Scope 1 for other fuels)
- Factors have been used throughout for Energy usage as per 2017 guidelines
- Natural Gas uses Gross CV figure for kWh conversion
- Electricity: The conversion factors in this model are for the electricity supplied to the grid that organisations purchase; this does not include the emissions associated with the transmission and distribution of electricity

- International electricity generation figures are based on DEFRA 2015 figures and more recent ones are not provided
- Coal – domestic figures used
- Diesel / Petrol – used average biofuel blend
- Taxis based on Vehicle kms, not passenger kms
- Couriers based on medium petrol motorbike
- Transmission & Distribution losses, as well as WTT figures are not included in the calculation.
- Heating Oil - the Burning oil emission factor is used

Travel

- Flights use:
 - Great circle route distances as calculated by latitude and longitude.
 - 8% distance inflation as recommended to allow for sub-optimal routing and stacking at airports during periods of heavy congestion. This is built into DEFRA figures.
 - Air passenger conversion factors as per sheet "Business Travel Air"
 - RFI of 1.9 is used by default
- Assumed distances are based on representative journeys from London Heathrow to representative destinations for each area, both in terms of geographical location and popularity from the UK:
- Distances based on International Passenger Survey (Office for National Statistics) calculations using airport geographic information.
- Illustrative flight distances as per guidelines
- Domestic Flights do not differentiate on class
- Short Haul Classes: Economy & Premium Economy Considered Economy. Business & First Considered as Business.
- Motorcycle courier emissions defined as per Motorcycles - UK average emissions figure
- Travel by petrol / diesel car is defined as distance travelled by vehicle, and not in the car (e.g. possible multiple-occupancy with car sharing)

Vehicles

No special notes – all as per guidance

Shipping & Logistics

Sea Freight Shipping Type:

<i>Clear Categorisation</i>	<i>DECC / DEFRA Categorisation</i>
Small tanker	Products: 5000–9999 dwt
Large tanker	Products: 20,000–59,999 dwt
Very large tanker	Products: 60,000+ dwt
Small bulk carrier	10,000–34,999 dwt
Large bulk carrier	60,000–99,999 dwt
Very large bulk carrier	200,000+ dwt
Small container vessel	2000–2999 TEU
Large container vessel	8000+ TEU

- When no shipping mode is selected, the model will default to "General Cargo"
- Air Freight Shipping Type - Domestic / Short-Haul / International (as Long-Haul). Defined as per sheet "Freighting Goods"
- Train Freight - Diesel / Electric Average
- Large Truck / HGV (Heavy Goods Vehicle) - considered as Diesel HGV - all HGVs - UK average
- Small Truck / Large Van - considered as Van / Light Commercial Vehicle - average all vehicles

Commuting

- Taxi & Black Cab based on passenger km, not overall figures for the entire vehicle
- All other figures as per guidance

Other

- Diesel & Petrol figures are for average biofuel blend

1st October 2017

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