

# Sustainable Games Standard

## Scope 3, Category 6 – Business Travel GHG emissions

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### Top-level summary

Emissions from:	<ul style="list-style-type: none"> <li>Travel undertaken by the employees of the business via car, bus, taxi, rail, and air travel</li> <li>Accommodation in hotels during business travel</li> </ul>
Examples:	<ul style="list-style-type: none"> <li>International or domestic flights to conferences, business meetings paid for by the business</li> <li>Train journeys, paid for or arranged by the company</li> <li>Taxis to and from airports and hotels, paid for or reimbursed by the company</li> <li>Bus tickets paid for by the company</li> <li><b>EXCLUDES:</b> <ul style="list-style-type: none"> <li>Employee travel to and from work (See S3.7 “Employee Commuting” Component)</li> <li>Travel by bike or on foot</li> <li>Other private travel paid for by employees</li> </ul> </li> </ul>
Data sources:	<ul style="list-style-type: none"> <li>UK DEFRA emissions factors (mode + distance)</li> <li>US EPA emissions factors (monetary)</li> <li>Company Travel Booking Systems or other records of travel</li> <li>Travel agent reports or ticketing systems</li> <li>Accounting system reports (for travel spend)</li> </ul>
Data types:	<ul style="list-style-type: none"> <li>Travel mode (e.g. hybrid car, luxury SUV, international flight, etc)</li> <li>Travel distance (kms, or passenger km for group travel)</li> <li>Spending on travel (in equivalent USD total)</li> </ul>

## Consult with other SGA resources

Understanding the requirements and nature of this component of the GHG emissions standard may be aided by consulting the relevant [data input spreadsheet](#) to see the overall structure and major sections before reading the standard specification.

## Overview

The SGA standard methodology for Scope 3 Category 6 “Business Travel” aims to provide a simple and efficient method of applying the baseline GHG Protocol guidance for forms of travel undertaken by employees while on business trips. It primarily provides a mode and distance-based method for calculating travel, for example, by summing the distances flown in a reporting period for all employees for each mode (air, rail, bus, taxi, etc.) and applying the most appropriate emissions factor for each activity. For the circumstances of a user of the standard having incomplete information about the total distance travelled, say, in cases of complex travel bookings, large organisations without central travel booking systems, or other challenges around record keeping and data collection, a fallback method based on total spend for a given travel mode is provided. For the spend-based method, users are to provide spend totals (in USD equivalents for the reporting period) to which are applied the most relevant spend-based emissions factor for a given mode. Users of the standard are encouraged to aim to increase the amount of distance+mode based measurements over time, as systems and processes improve, as these methods provide the most accuracy and the most opportunities for identifying and reducing emissions.

# Specification

Users of the standard shall collect either distance and mode-based data for business travel in the reporting period, or spend-based totals for business travel undertaken by employees in the reporting period. Travel data shall only be collected for business travel undertaken in vehicles not directly owned by the company (these are to instead be reported under Scope 1 emissions).

Travel data for specific modes shall be collected for land-based travel, air-based travel, and hotel stays. The specific formats to be collected for each are below:

## Land-based travel

- The following data shall be collected:
  - Total passenger kilometres travelled per mode, for the reporting period (or for parts thereof, to be summed together)
  - Information on the nature of the mode of transport, corresponding approximately to the UK DESNZ categories of travel mode. These categories are:
    - Cars (by market segment)
    - Cars (by size)
    - Taxis
    - Bus
    - Rai
- **NB:** See the [SGA S3.6 data input sheet](#) dropdowns or refer to the UK DESNZ emissions factors for available options within each of the above categories, for the level of data collection expected. In most cases where data on, for instance, whether a car was small/medium/large (in the cars by size category) is not available, an average or best guess may be used, e.g. “Average Car”.

- For business travel undertaken by **bus**, **taxi** and **rail**, the passenger-kilometre amount is to be calculated based on the total number of travellers in a group, multiplied by the distance travelled.
- For business travel undertaken by car (other than taxi – e.g. hire cars, etc), the total distance travelled per vehicle trip is to be used, regardless of how many passengers it carries, rather than a passenger-kilometres total.

## Calculation

- For each of the collected data categories, a subtotal shall be produced by multiplying the distance travelled (or passenger kilometres) by the most appropriate UK DESNZ emissions factor available, and summing across all trips.

## Air-based travel

- The following data shall be collected:
  - Passenger kilometres travelled per trip, or per mode, for the reporting period (or for parts thereof, provided they are summed together)
  - Information on the nature of the mode of transport, corresponding to the UK DESNZ categories of air-based travel mode. These categories are:
    - Domestic, Short Haul, Long Haul, International
    - The class of ticket purchased (economy, premium economy, business, etc)
    - With associated information about origin/destination being inside/outside the UK
- **NB:** See the [SGA S3.6 data input sheet](#) dropdowns or refer to the UK DESNZ emissions factors for more detail about the options within each of the above categories and for the level of data collection expected. In most cases where data on, for instance, the nature of a flight (such as short/long/international) is not available, an “average passenger” may be used.

## Hotels

- The following data shall be collected:
  - Country of stay (e.g. “Finland”, “Germany”, etc)
  - Total number of nights (per room)
- For business travel where 2 or more travellers share a room, this is to be counted by the total number of rooms, not the total number of persons, per night.

## Calculation

- For each of the collected data categories, a subtotal shall be produced by multiplying the total number of room nights by the most appropriate UK DESNZ emissions factor for hotel stays for that location (country), and summing across all trips.

## Further information and reduction guidance

- First priority for reductions in business travel should be to increase mode shift from air to any other land based travel wherever and however possible.
- Suggestions for policy initiatives that reduce emissions:
  - Slow travel policy – look to SGA member examples: Fingersoft, Neogames.
  - Lessons for facilitating slow travel: case studies TBC

# Appendix

GHG Protocol Distance-based method for reference:

## Calculation formula [6.1] Distance-based method

***CO<sub>2</sub>e emissions from business travel =***

$$\begin{aligned} & \text{sum across vehicle types:} \\ & \Sigma (\text{distance travelled by vehicle type (vehicle-km or passenger-km)} \\ & \times \text{vehicle specific emission factor (kg CO}_2\text{e/vehicle-km or kg CO}_2\text{e/passenger-km)}) \\ & + \\ & \text{(optional)} \\ & \Sigma (\text{annual number of hotel nights (nights)} \times \text{hotel emission factor (kg CO}_2\text{e/night)}) \end{aligned}$$

## CATEGORY 6 Business Travel

### Example [6.1] Calculating emissions from business travel using the distance-based method (continued)

Three types of flights are identified for calculating emission factors. Short-haul flights have higher emission factors due to strong influence of the landing/take off cycle on emissions, whereas long-haul flights have slightly higher emissions than medium-haul flights due to the additional weight of fuel. Many countries have specific definitions of types of flights. Below is an indicative description:

- Short haul – flights less than 3 hours in length
- Medium haul – flights 3-6 hours in length
- Long haul – journeys made by wide-bodied aircrafts that fly long distance, typically more than 6.5 hours.

**total business travel emissions of Company A can be calculated as follows:**

$$\begin{aligned} \text{emissions from road travel} &= \Sigma (\text{distance travelled by vehicle type (vehicle-km or passenger-km)} \\ & \times \text{vehicle specific emission factor (kg CO}_2\text{e/vehicle-km or kg CO}_2\text{e/passenger-km)}) \\ &= (10/2 \times 50 \times 1) + (20/2 \times 200 \times 2) + (100/3 \times 100 \times 4) \\ &= 17,583.33 \text{ kg CO}_2\text{e} \end{aligned}$$

$$\begin{aligned} \text{emissions from air travel} &= \Sigma (\text{distance travelled by vehicle type (vehicle-km or passenger-km)} \\ & \times \text{vehicle specific emission factor (kg CO}_2\text{e/vehicle-km or kg CO}_2\text{e/passenger-km)}) \\ &= (10 \times 10,000 \times 5) + (20 \times 15,000 \times 6) + (100 \times 12,000 \times 5) \\ &= 8,300,000 \text{ kg CO}_2\text{e} \end{aligned}$$

$$\begin{aligned} \text{total emissions from employee travel} &= \text{emissions from road travel} + \text{emissions from air travel} \\ &= 17,583.33 + 8,300,000 \\ &= 8,317,583.33 \text{ kg CO}_2\text{e} \end{aligned}$$

GHG Protocol spend-based method:

"The calculation method is same as the spend-based method described in Category 4:

Upstream Transportation and Distribution, with the difference that the activity data is the amount spent on business travel by type/mode of transport."