Sustainable Games Standard

Scope 3, Category 1 – Purchased goods and services – Data Centre Services GHG emissions

VERSION: 0.0.1

DATE: 9/9/2025

Top-level summary

Emissions from:	• Purchased services from rented data centres, including:
	    ○ Data storage
	    ○ Data processing or compute
	    ○ Content delivery
	    ○ Virtual machines
	    ○ "Bare metal" servers

Examples:	• Multiplayer server hosting for online games
	• Shared virtual world hosting for MMOs
	• Downloads of high-definition texture packs from game servers
	• In-game chat (voice and/or text) thatis sent through game servers
	• **EXCLUDES**:
	    • Downloads of game content from servers **not paid for by the reporting company** (e.g. digital distribution platforms like Steam) – these are to be reported under Scope 3.9 "Downstream Transport and Distribution"
	    • Data for voice chat that is facilitated by external programs (e.g. Discord, Teamspeak)

Data sources:	• Customer carbon calculators • Usage dashboards • Billing information • Server specifications
Data types:	• Location-based or market-based emissions measurements (kg or tonnes of CO2e) direct from providers • Number of VMs (integer) in a given location • Server uptime (minutes/hours/days, etc) • Bare Metal server specifications (hardware profile, and/or average energy) • Total data transferred / bandwidth used by servers • Dollar or other currency values

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](link) to see the overall structure and major sections before reading the standard specification.

Depending on how a business categorises IT Hardware in its accounting practices, spend on IT Hardware may be considered either Scope 3.1 "Purchased Goods and Services" emissions, or Scope 3.2 "Capital Goods". Consult with internal accounting/finance experts for an answer. Functionally, this will only affect which category of Scope 3 emissions these are reporting under, with no changes to the methodology involved.

Overview

The SGA standard methodology for Scope 3 Category 1 "Purchased goods and services" (Data Centre services) aims to improve the accuracy and applicability of the baseline GHG Protocol activity-based guidance for purchases of goods and services, specifically for purchases of services from cloud computing and storage, content distribution networks, game hosting, and in-game communications.

Specification

Three methods are permitted:

- Option 1 – Customer Carbon Calculator:
    - For such data centres that have customer carbon calculators, on either a per-customer, or per-service basis, these shall be permitted for use, provided that there is a stated methodology for how the calculations are produced and apportioned to users.
    - The SGA provides a link to, and a brief evaluation of, the methodology of each customer carbon calculator in the S3.1 data centre input sheet. Customer carbon calculator methods should ideally encompass Scopes 1, 2 and 3 emissions of the service provider, provide a rationale for how the amounts are apportioned to users, and be reviewed by a third party where possible.

- ○ Any existing customer carbon calculator that does not achieve this standard may still be used, provided that the limitations of its methodologies are acknowledged (if applicable).

- Option 2 – An intermediate method that uses industry-supplied and research-backed average data to model likely emissions arising from certain types of data centre usage.
  - ○ Not currently available
  - ○ Requires more research and supplier engagement to produce averages and/or models for typical workloads for each type of service.
  - ○ Data inputs for this method will ideally include: type and number of VM/BM server, location of server, and/or direct energy consumption measurements or other proxy measures based on usage.

- Option 3 – A spend-based method, which shall consist of:
  - ○ Dollar or other currency totals spent in the reporting period on data centre services
  - ○ Which shall then be converted into the relevant USD/year for the appropriate USEEIO emissions factor (i.e. 2021 USD)
  - ○ The total shall be the converted currency amount multiplied by the most appropriate emissions factor

A mixture of the three methods is permitted, so long as the same data centre activity is not represented in more than one option. For example, a user may choose to use Option 1 customer carbon calculator method for data centre services for online storage of game development files on Microsoft Azure, use Option 2 for in-game voice chat hosted by another data centre provider which lacks a customer carbon calculator, and Option 3 for data centre spending from a mixture of DC services providing in-game hosting across the world.

See the data input sheet for the mathematical calculations to be applied to each of the data inputs. Totals for the whole specification are the sum of each of the components.