

Sustainable Games Standard

Scope 3, Category 1 – Purchased goods and services (Digital Advertising) GHG emissions

VERSION: 0.0.1

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Top-level summary

Emissions from:	<ul style="list-style-type: none"> • Digital advertising in display (image-based) and video formats • Digital advertising – programmatic advertising • Digital advertising – end-to-end (e.g. social media advertising) • Digital advertising – direct buy
Examples:	<ul style="list-style-type: none"> • Total advertising spend in a region, e.g. France (manually or automatically converted to a specific currency) • Energy consumed in a specific region, e.g. Finland, by engaging in real-time bidding (RTB) via advertising exchanges and encompassing: internet data transmission, server connection and processing energy, content delivery, and display of advertising on end user devices. • Energy consumed by digital advertising in a specific region via 'end to end' advertiser platforms (e.g. Instagram, Meta, etc) • Energy consumed by digital advertising through 'direct buy' purchased advertising • EXCLUDES: <ul style="list-style-type: none"> • All non-digital advertising (purchased goods and services) • Outdoor advertising (billboards) • Magazine advertising • Television and radio advertising
Data sources:	<ul style="list-style-type: none"> • Ad Net Zero Global Media Sustainability Framework V1.2 • Ad Net Zero emissions factors and calculations (last revised June 2025) • Impressions count from programmatic advertising • Ads.txt lines specifying valid ad network exchanges (see IAB specification) • Creative agencies • Advertising networks
Data types:	<ul style="list-style-type: none"> • Impressions (aggregated by region), associated with specific end user device families (where possible) • File size of advertising creative (storage, display and transmission) • Advertising type (display or video; instream video or standalone) • Creative content file size(s) • Completion rate (for video advertising) • Average viewed time of advertising content, by region and device family

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.

This component of the SGA Standard relies upon guidance contained in the [Ad Net Zero](#) (ANZ) [Global Media Sustainability Framework](#) (V1.2) for digital advertising – as such, consulting the relevant ANZ guidance documentation may also be of assistance. The SGA aims to be an implementation of, or at a minimum, closely aligned with the ANZ GMSF methodologies.

Overview

The SGA standard methodology for Scope 3 Category 1 “Purchased goods and services (Digital Advertising)” aims to improve the accuracy and applicability of the baseline GHG Protocol activity-based guidance for purchases of goods and services, specifically as regards digital advertising.

Adapting the Ad Net Zero GMSF framework guidance to be compatible with the rest of the SGA Standard, the conventions already adopted, and the needs and expectations of the games industry, the SGA currently allows for two methods for measurement of the energy consumption and emissions of digital advertising, with a provisional third method to be explored and (if necessary) developed in future. The two current methods are: 1) a spend-based method, that takes readily available accounting data for the total spend on digital advertising, and 2) a detailed implementation of the ANZ GMSF V1.2 guidance, which uses activity-based data, and industry-informed data and analysis to estimate the impact of three main types of digital advertising.

Specification

Three methods are permissible:

- Option 1 – Spend based:
 - Shall consist of regional aggregation of spend in the reporting period
 - Shall convert to equivalent values (currency/year – adjusted for inflation) of the most relevant emissions factor. Currently available EFs are:
 - 2019/2020 GBP (for UK based advertising)
 - Canadian dollars for Canada
 - New Zealand dollars
 - 2019 or 2022 USD
 - For a different currency, preparer shall convert into the equivalent 2021 USD (using average exchange values for the year, and inflation data)
- Option 2 – An intermediate method that uses activity data but allows for more limited data – this method is still to be determined, in consultation with SGA members.
- Option 3 – A supplier-data based method:
 - Shall consist of three mandatory components measuring GHG impacts from different use-phases of the advertising lifecycle
 - A – advertising creation – with a note that the ANZ standard does not include agency ad creation in scope, so that must be added on top (but could also be in Scope 3.1 purchased goods and services if done by agency). Consisting of measurement of the storage medium that creation of advertising material backups are stored on.
 - B1 – advertising distribution (programmatic). Consisting of four phases for the automated buying, transmission, processing, and delivery of digital programmatic advertising.

- B2 – advertising distribution (end-to-end or direct buy advertising).
Consisting of the same method as B1 except omitting the
programmatic server bidding component.
- C – end user consumption. Consisting of advertising consumption by
end users allocated by region and by device family.
- Data required for each component shall consist of:
 - A – Total size of masters (GB), Storage Medium (physical storage
format), number of copies stored, and the time for the material to be
stored (in years)
 - B1 – Each of the following as allocated to a Region; Advertising type
(Display/Video), Impressions (Whole number), Ads.txt lines (as a proxy
for number of servers connected to in programmatic advertising
request), File size of advertising (kb) (including default values to use if
none collected: Display: 200 kb Video: 4000 kb, 6000 kb for instream
video), Completion rate as % – with display always being 100% (i.e. how
much of a video gets watched by viewers, as a proxy for data
transferred).
 - B2 – Same as B1 however excluding Ads.txt lines, and including an
additional advertising type (end-to-end or direct buy).
 - C – Each of the following as allocated to a Region; Device family
(specifying either mobile/tablet/TV or PC), with a default expected split
to be used in the case of low/no data, total Impressions, and an
optional average view time (seconds) if known, otherwise a default is to
be used.

See the data input sheet for the mathematical calculations to be applied to each of the data inputs, applying the GMSF V1.2 digital methodology. Totals for the whole specification are the sum of each of the components.

NB: Known issues with the existing method are limited ability to account for programmatic ad server locations beyond the main region for each set of impressions.