



# Endava Greenhouse Gas ('GHG') Emissions Reporting Principles and Methodologies for Data Subject to Independent Limited Assurance

Reporting period: 1<sup>st</sup> July 2022 to 30<sup>th</sup> June 2023

## 1 Introduction

In this document we outline the criteria and supporting methodologies that Endava Group ('Endava') has adopted to prepare its Greenhouse Gas (GHG) emissions for the financial year ended 30th June 2023. Endava Group is defined as the legal entity Endava plc and its subsidiaries.

Our methodology for reporting GHG emissions is based on principles within the 2013 UK Government Environmental Reporting Guidelines (Chapter 2) and the GHG Protocol Corporate Accounting and Reporting Standard (revised edition), which have been tailored to Endava as described in this document.

## 2 Organisational Boundary and scope of emissions

### Emissions and Sources

Endava includes Scope 1 and Scope 2 GHG emissions, as defined by the GHG Protocol Corporate Accounting and Reporting Standard, carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), Nitrogen trifluoride (NF<sub>3</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF<sub>6</sub>), within its annual greenhouse gas report. The following sources of emissions are included within the report:

Scope 1 Direct emissions includes:

- stationary combustion sources: emissions from combustion for heating (e.g., natural gas); and
- mobile combustion sources: emissions from company fleet (owned cars and cars that are leased over a period of 30 days or more).

Refrigerant use is excluded from the emissions assurance scope but will be included in future years once more primary data becomes available for this source.

**Scope 2 Indirect emissions** are emissions that result from the consumption in owned or controlled facilities (as defined in the operational control section below) of purchased or acquired electricity and district heating, as well as from electricity consumed by electric vehicles from company fleet (owned cars and cars that are leased over a period of 30 days or more). Electricity is reported under both market-based and location-based methods.

### Organisational Boundary

Endava adopts an Operational Control boundary approach in its annual GHG reporting. This includes all sources of emissions over which Endava has the full authority to introduce and implement its operating policies at the operation.

Under the Operational Control approach, 100% of the calculated impact arising from Group companies and subsidiary entities over which Endava has operational control is included. On an annual basis, the organisational boundary is reviewed to ensure that any new operations are included where necessary. This is completed using the organisational structure from the Company Secretary. From this, a review of properties is completed to identify what, if any, new sites fall within the scope of the emissions reporting (e.g., the property assets associated with a company acquisition, the opening of an office in a new

location, etc), as well as what sites, if any, are no longer within the reporting scope (e.g., site closures, divested entities, etc). The updated organisational and property records are then reconciled to determine the boundary for the reporting year, after which the emissions source data is requested from the appropriate site contacts.

Emissions from entities acquired during the financial year will be incorporated into the annual GHG report in the next reporting period (from the start of that year) in accordance with the scope and boundary criteria set out in this document, unless otherwise indicated in our reporting. There are no exclusions in the 2022 reporting. Emissions from entities disposed of during the year are included up to the date of disposal within the respective annual reporting year.

Emissions from new sites opened during the financial year (operational leases) are reported from the date the lease started. Similarly, reporting of emissions for a site that closes during the financial year ceases after the later of the date when the site closes (end of lease agreement) or the last utility invoices are received.

### **Operational Control**

To determine the operational boundary of the GHG inventory, a site is considered to be under our control when the contracting of the office space is done based on a lease contract (as opposed to a serviced office agreement) AND energy supplied to the premises occupied by Endava is metered or estimated and billed based on the amount consumed in each period. For example:

- Where we have a contract directly with the electricity or natural gas or district heating supplier - and we are billed directly by the supplier, the site is considered under our control, OR
- Where electricity or natural gas or district heating is paid by the landlord and re-charged to us based on the actual amount we have consumed (i.e., metered amount), the site is considered under our control, OR
- Where electricity or natural gas or district heating is paid by the landlord and re-charged to us based on the landlord's estimated amount that we have consumed (i.e., individual estimated amount and not a fixed charge), the site is considered under our control.

Where we pay a fixed fee for energy as part of our rental payments (i.e., regardless of the amount actually consumed) then the site is considered NOT under our control and therefore emissions associated with this site's energy usage would be Scope 3. This is usually the case for Endava operations located in serviced offices, and, exceptionally, in some leased offices.

## **3 Reporting format**

### **Period**

Endava produces its Annual Report and Accounts for the 12 months to 30 June, and the GHG emissions reporting also aligns to this period. The Group is publicly reporting its Scope 1 and Scope 2 aligned to the methodology within this document.

### **Emissions Factors**

We calculate our carbon emissions through the collection of primary and secondary data and converting them into the associated carbon emissions using the relevant emissions factors.

Primary data is used everywhere possible. Where primary data is not available, we use estimates (secondary data), as detailed in the Emissions Data section below.

Endava has used a series of factors to calculate the emissions for the 12 months to 30 June 2023, corresponding to different emission sources, as detailed below.

## Scope 1

### Stationary sources:

For emissions from combustion for heating, we use conversion factors taken from the US Environmental Protection Agency (USEPA 2022) [Emissions factor hub](#), converting all emissions to CO<sub>2</sub>e using IPCC Sixth Assessment Global Warming Potentials (AR6 GWP) - natural gas.

### Mobile combustion sources:

To calculate emissions from company fleet (owned passenger cars and passenger cars that are leased over a period of 30 days or more), we use data about the type and size of vehicles, type of fuel and consumption per vehicle. Ecoinvent 3.8 conversion factors are used for calculation of emissions based on mileage consumed. Where consumption data is available in quantities of fuel consumed (e.g., gallons, litres), USEPA (2022) emission factors are used.

## Scope 2

**For purchased electricity**, to calculate the emissions under the location-based method for all operations we use:

- [UK Department for Environment, Food and Rural Affairs \(DEFRA 2022\)](#) for the UK grid to calculate emissions for the UK sites;
- eGRID 2022 emissions factors for US subregions' grids ([most recent data set](#), released in 2022 uses 2020 data) to calculate emissions for the US sites; and
- International Energy Agency (IEA 2022) emission factors for each country's grid ([most recent data set](#), released in 2022, uses 2020 data) to calculate emissions for non-US and non-UK sites.

Under the market-based method, the most precise emission factor has been used following the hierarchy below, in line with GHG Protocol Scope 2 Guidance:

- **Supplier-specific emission rate** that meets the Quality Criteria provided by the GHG Protocol Scope 2 Guidance (Quality Criteria).
- **Residual mix factor for relevant country**, taken from:
  - [Green-e Residual](#) Mix Emissions Rates for US grids (most recent data set is 2022) with CH<sub>4</sub> and N<sub>2</sub>O EFs added from eGRID subregions and converted to CO<sub>2</sub>e using AR6 GWP; to calculate emissions for the US sites.
  - Association of Issuing Bodies' European residual mix 2021 (AIB 2022) with CH<sub>4</sub> and N<sub>2</sub>O EFs added from [DEFRA \(2022\)](#) and converted to CO<sub>2</sub>e using AR6 GWP for each country's grid to calculate emissions for non-US sites.
- **Grid average factor for relevant country**, taken from the sources as described above for the location-based method.

When a site is engaged in a specific renewable energy contract, supplier specific emission rates will be requested from the supplier on an annual basis and assessed against the Quality Criteria. Renewable energy claims will only be made when exclusivity and traceability

can be confirmed, ensuring that the relevant Energy Attribute Certificates (EACs) have been appropriately retired on Endava's behalf.

In 2023, there have been no sites sourcing renewable energy that meet the Quality Criteria. Because we operate in numerous markets for which AIB residual mix factors are available, the emissions reported in 2023 under the market-based method are higher than the emissions reported under the location-based method.

**For electricity consumed by electric vehicles part of the company fleet** (electric and plug-in hybrid cars owned or leased over a period of 30 days or more), we use consumption data (in km, converted to kWh using [AFLEET](#)). We assume that 100% charging of these vehicles occurs offsite, and that all electricity consumption is based on a standard grid tariff. The same emission factor sources are used for calculation of GHG emissions from electric fleet as for electricity.

**For district heating**, we use:

- For the US, USEPA 2022 emission factors, using AR6 GWP; and
- For European countries, emission factors from Johansen & Werner, 2022, Renewable and Sustainable Energy Reviews 158 "[Something is sustainable in the state of Denmark: A review of the Danish district heating sector](#)" (Johansen & Werner 2022)

## 4 Emissions Data

### Restatement policy

Where information is available, we will restate prior year's figures using the latest available data to make data as comparable between years as possible. Where restatements have been made for specific indicators, these will be clearly outlined in our reporting.

Restatements are considered necessary if there is a change of greater than 5% (our significance threshold) of the reported data. Restatements may be needed as a result of:

- Structural change: Where we experience a structural change (e.g., due to an acquisition) in future periods, we will recalculate the baseline accordingly, applying an "all-year" approach to this recalculation (data for all years between the base year and the reporting year will be updated);
- Changes in calculation methodology or improvements in the accuracy of emission factors or activity data that result in a significant impact on the emissions data; and
- Discovery of significant errors, or a number of cumulative errors, that are collectively significant.

### Scope 1 Emissions sources

#### Stationary combustion sources for heating:

To calculate emissions from combustion for heating, the most precise data available is used following the hierarchy below:

- Primary data: the type of heating (e.g., gas) and consumption for the selected period in the unit indicated on the bill (e.g., kilowatt-hours, cubic meters). The consumption is primarily

evidenced by monthly, quarterly, or annual bills. We pro-rate the invoice where the invoice covers a period different to the calendar month. If gaps in the period for natural gas data are identified for any given site, we extrapolate the consumption for this period based on average consumption for the period when data is available for that specific site.

- Estimates: for those locations where primary consumption data for the reporting year is not available as insufficient detail is provided by the landlord of their estimate of Endava's consumption as part of the variable energy usage re-charging, estimations relating to gas consumption are made by using the physical size of the office (square metres) and the average consumption per unit area across all Endava offices where primary data exists. The MMBtu/square metre/day calculated is then applied to any office where primary data is unavailable based on the site floorplan area of that site and the number of days during the reporting year when the site was under Endava's operational control.

### **Mobile combustion sources**

Scope 1 transport emissions across Endava extend to fuel used in company fleet (owned cars and cars that are leased over a period of 30 days or more). To calculate these emissions, we use primary data and estimates.

- Primary data: type of vehicles (cars), type of fuel (diesel, gasoline) and consumption per vehicle (mileage, gallons) were used. Emissions are calculated by applying the correct emission factor (taken from the sources described in the Emissions Factors section) to the consumption data (e.g., litres, gallons miles, km) for the relevant vehicle size and fuel type. Each data provider maintains a record of consumption per vehicle based on distances from odometer records. Fuel supplier data (fuel card readings) are used where odometer records are not available.
- Estimates: where primary data on vehicles is not available for a given country/ legal entity, we:
  - use an estimated mileage consumption provided by the car users or, if not available, and
  - assume that both the number of vehicles and consumption in the current year is identical to the previous year.

Consumption associated with personal use of company fleet is included if the fuel has been paid for by Endava. Where no record of explicit work-related mileage is provided, it is assumed that all distance travelled by company cars are work-related and reported accordingly.

The following activities are excluded from Scope 1 emissions:

- Transport emissions: Fuel used for business travel in employee-owned or rented vehicles (leases under 30 days) which fall within Scope 3 emissions sources from business travel;
- Emissions from stationary sources:
  - Fugitive emissions (fluorinated gases) from the leakages of cooling liquid used for air conditioning or other sources are excluded in this reporting year due to lack of data across locations and will be included once more primary data becomes available for this source.
  - Emissions from back-up electric power generators are excluded because they are not owned by Endava or are not under Endava's operational control; and
- Well-to-tank (WTT) emissions for fuels are reported separately, under Scope 3, category 3 (Fuel and energy related activities).

## Scope 2 Emissions sources

### Purchased electricity

A hierarchy is used for electricity data in the following manner:

- Primary data: the amount of electricity consumed in the selected period, with supplier invoices taking the highest priority in the unit indicated on the bill (e.g., kilowatt-hours), followed by automatic meter readings and manual meter readings. We pro-rate the invoice where the invoice covers a period different to the calendar month. If gaps in the period for electricity data are identified for any given site, we extrapolate the consumption for this period based on average consumption for the period when data is available in that specific site.
- Secondary data (estimates): for those locations where primary consumption data for the reporting year is not available as insufficient detail is provided by the landlord of their estimate of Endava's consumption as part of the variable energy usage re-charging, estimations relating to electricity consumption are made by using the physical size of the office (square metres) and the average consumption per unit area across all Endava offices where primary data exists. The kWh/square metre/day calculated is then applied to any office where primary data is unavailable based on the site floorplan area of that site and the number of days during the reporting year when the location was under Endava's operational control.

### Electricity consumed by electric vehicles

Scope 2 emissions from electric transport across Endava extend to electricity used in company fleet (owned cars and cars that are leased over a period of 30 days or more). We assume that 100% charging of these vehicles occurs offsite, and that all electricity consumption is based on standard grid tariff. To calculate these emissions, we use primary data and estimates:

- Primary data: type of vehicles (cars), type of fuel (electric) and consumption per vehicle (mileage) are used. Emissions are calculated by applying the correct emission factor (taken from the sources described in the Emissions Factors section) to the consumption data entered in online forms, for each type of vehicle (car / motorcycle / truck). Each data provider maintains a record of electricity consumed based on distances from odometer records. Electric charger invoices or records are used where odometer records are not available.
- Estimates: where primary data on vehicles is not available for a given country/ legal entity, we:
  - use an estimated mileage consumption provided by the car users or, if not available, and
  - assume that both the number of vehicles and consumption in the current year is identical to the previous year.

Consumption associated with personal use of company fleet is included if the electricity has been paid for by Endava. Where no record of explicit work-related mileage is provided, it is assumed that all distance travelled by company cars are work-related and reported accordingly.

The following activities are excluded from Scope 2 emissions:



- Electricity used for business travel in employee-owned or rented electric and plug-in hybrid vehicles (leases under 30 days) which fall within Scope 3 emissions sources from business travel; and
- Transmission and Distribution Loss (TDL) emissions for electricity and WTT emissions for district heating are reported separately, under Scope 3, category 3 (Fuel and energy related activities).

### **District heating (purchased steam)**

To calculate emissions from district heating, the most precise data available has been used following the hierarchy below:

- **Primary data:** the type of heating (i.e., district) and consumption for the selected period in the unit indicated on the bill (e.g., kilowatt-hours, therms). The consumption is primarily evidenced by monthly, quarterly, or annual bills. We pro-rate the invoice where the invoice covers a period different to the calendar month. If gaps in the period for district heating data are identified for any given site, we extrapolate the consumption for this period based on average consumption for the period when data is available in that specific site.
- **Estimates:** for those sites where primary consumption data for the reporting year is not available as insufficient detail is provided by the landlord of their estimate of Endava's consumption as part of the variable energy usage re-charging, estimations relating to district heating consumption are made by using the physical size of the office (square metres) and the average consumption per unit area across all Endava offices where primary data exists. The MMBtu/square metre/day calculated is then applied to any office where primary data is unavailable based on the site floorplan area of that site and the number of days during the reporting year when the site was under Endava's operational control.