



TORTILLA MEXICAN GRILL PLC

NET ZERO METHODOLOGY

Method, Data and Calculations

FY 2023

TORTILLA

 SUSTAINABLE
ADVANTAGE

Reporting Period:	1 January 2023 to 31 December 2023
--------------------------	------------------------------------

Prepared for:	Prepared by:
Tortilla Mexican Grill PLC	Sustainable Advantage
1st Floor Evelyn house, 142-144 New Cavendish Street, London, W1W 6YF	Hersham Technology Park, Molesey Road, Hersham, Walton-on-Thames, KT12 4RS
Tortilla Registration: 13511888	Tortilla Registration: 08046116
VCassem@Tortilla.co.uk	penny.court@sustainable-advantage.com
https://www.tortilla.co.uk/	www.sustainable-advantage.com
07513482857	0203 544 2020

Report written by:	Sahar Bhurtun ESG Consultant
Quality Assurance:	Penny Court Senior Manager and Principal Consultant
Approved by:	Michael Warwick Principal Consultant Head of Net-Zero

DISCLAIMER

This report has been commissioned by Tortilla and has been prepared, compiled and designed by Sustainable Advantage Limited (SA) for Tortilla's internal use and benefit. The scope of the report and purpose for which it was prepared are subject to the contract between SA and Tortilla.

In preparing this report, SA relied on information provided by Tortilla and third parties on [client name's] behalf. That information is presented "as is" and SA gives no warranty or representation as to the accuracy, completeness or fitness for purpose of any of the information set out in this report and gives no guarantee of performance or outcomes or the results obtained from the use of this report.

Neither SA nor its employees or officers accept liability for any errors or omissions in such information or for any losses incurred or suffered by third parties in reliance on this report and its contents.

Copyright in this report is owned by SA and SA reserves all its rights in this respect. No part of this report may be copied, reproduced or displayed without SA's express consent.

This report does not constitute legal, tax, accounting, financial or investment advice.

© Sustainable Advantage, 2023

TABLE OF CONTENTS

TABLE OF CONTENTS	2
SECTION 1: INTRODUCTION	3
SECTION 2: STRATEGY	5
2.1: BOUNDARIES.....	5
2.2: OPERATIONAL BOUNDARIES DEFINED.....	5
2.2.1: Scope 1 (Direct Emission Sources).....	5
2.2.2: Scope 2 (Indirect Emission Sources).....	6
2.2.3: Scope 3 (Indirect Emission Sources).....	6
2.2.4: Exclusions.....	7
SECTION 3: GREEN HOUSE GASES	8
SECTION 4: BASE YEAR	9
4.1: RECALCULATION POLICY.....	9
4.1.1: Adjusting for Structural Changes.....	9
4.1.2: Adjusting for Methodological Changes and Corrections.....	10
4.2: ADJUSTMENTS TO BASE YEAR.....	11
SECTION 5: EMISSIONS CALCULATIONS	12
5.1: SCOPE 1.....	12
Scope 1: Stationary Combustion (Natural gas).....	12
Scope 1: Fugitive emissions of refrigerant gases.....	13
5.2: SCOPE 2.....	14
Scope 2: Location-based emissions from electricity consumption.....	14
5.3: SCOPE 3.....	15
Scope 3: Category 1: Purchased goods and services.....	15
Scope 3: Category 2: Capital goods.....	17
Scope 3: Category 3: Fuel and energy-related activities (not included in Scope 1 and 2).....	18
Scope 3: Category 4: Upstream transportation and distribution.....	19
Scope 3: Category 5: Waste generated in operations.....	20
Scope 3: Category 6: Business travel.....	21
Scope 3: Category 7: Employee commuting.....	22
Scope 3: Category 7: Employee homeworking.....	23
Scope 3: Category 9: Downstream transportation and distribution.....	25
Scope 3: Category 12: End of life treatment.....	26
Scope 3: Category 14: Franchises.....	27

Section 1: Introduction

Founded in October 2007, Tortilla is the UK's largest fast-casual Mexican restaurant brand, offering a high-quality, affordable and freshly prepared California-style Mexican menu. The Tortilla brands, Tortilla and Chilango, together have over 80 owned and franchised locations across the UK and Middle East. A breakdown of sites and franchises is shown in Table 1.

Table 1. Breakdown of Tortilla's sites

Site location		
Balham (closed Dec 2023)	Durham	Newcastle
Bath	Edinburgh	Norwich (opened Dec 2023)
Belfast (opened Jul 2023)	Edinburgh Forest Road (opened Nov 2023)	Nottingham IVC
Birmingham GC	Exeter	Nottingham Clumber St
Birmingham Victoria Square	Finchley Road	Oxford
Bluewater	Greenwich	Oxford Circus
Bournemouth	Guildford	Peckham
Bracknell (opened Aug 2023)	Gunwharf Quays	Putney
Brewer Street	Hammersmith	Reading
Brighton	Harrow	Richmond
Bristol Cabot	Head Office	Russell Square
Bristol Cribbs	Islington	Silverburn
Cambridge	Islington - C	Southampton
Camden	Kings Cross	Southwark
Canary Wharf	Kingston	Spitalfields
Canterbury	Lakeside	Strand
Cardiff	Leadenhall	Victoria
Chancery Lane	Leeds	Wardour St (Soho)
Cheshire Oaks	Leicester	Watford
Clapham	Lincoln	Westfield Stratford
Coventry	Liverpool	Wimbledon
CPU	London Bridge	Windsor
Croydon	London Wall	Wood Green (closed Dec 2023)
Dalston (re-opened Oct 2023)	Manchester	
Derby	New Westfield London	

As part of Tortilla's continued commitment to reducing greenhouse gas (GHG) emissions and reaching Net Zero emissions goals by 2045, they have continued their partnership with expert sustainability consultants to calculate their carbon emissions for FYE 2023. Tortilla can use this calculation to evaluate where they are on their Net Zero journey compared to their FYE 2022 baseline year and to assess where to continue to focus their efforts to bring GHG emissions down and allow their customers to easily make sustainable choices. This document outlines the methodology undertaken to calculate the full Scope 1, 2 and 3 emissions of the business.

Section 2: Strategy

Tortilla has calculated its GHG emissions in line with the Green House Gas Protocol as set out by the World Resources Institute (WRI) and the World Business Council for Sustainable Development (WBCSD).¹

2.1: Boundaries

The GHG protocol states that a business's organisational boundaries can be set in two possible ways. '*Equity Share*' where the boundary is defined by the amount of equity a business has in an operation or '*Control Approach*' where the boundary is defined by how much control a business exerts over an operation. Control can be defined by either operational or financial control.

Tortilla has chosen to use the '*Operational Control*' approach meaning that it includes in its emissions inventory any and all operations which it or one of its subsidiaries has full authority to control operating policies. Tortilla has chosen this as it best reflects the areas where it can influence and affect policies that directly and indirectly relate to GHG emissions.

2.2: Operational Boundaries Defined

Operational boundary conditions provide depth to a corporate inventory by identifying which emissions sources will be accounted for within the organisational boundaries.

The GHG Protocol outlines three categories of emissions sources (referred to as "scopes"):

- **Scope 1, 'Direct Emissions'**, represent emissions from combustible fuels and other sources that occur directly on-site and mobile emission sources
- **Scope 2, 'Indirect Emissions'**, represent emissions that occur off-site to produce electricity or steam purchased for use at a Tortilla's locations
- **Scope 3, 'Other Indirect Emissions'**, represent emissions from activities upstream or downstream from Tortilla's core business such as purchased goods and services, waste disposal, commuting, and business travel.

2.2.1: Scope 1 (Direct Emission Sources)

Scope 1 sources included in the inventory are onsite (or "stationary") natural gas combustion and mobile fuel combustion from leased and owned vehicles.

¹ <https://ghgprotocol.org/>

2.2.2: Scope 2 (Indirect Emission Sources)

Purchased electricity was the only identified scope 2 emissions source. Per the GHG Protocol and the UK Government's Environmental Reporting Guidelines, scope 2 emissions have been calculated in two ways using the location-based and the market-based methodology. A location-based method reflects the average emissions intensity of the grids on which energy consumption occurs. A market-based method reflects emissions from electricity from sources/locations that Tortilla has purposefully chosen (e.g., specific green energy supply contracts, renewable energy guarantees of origin (REGO), green power purchase agreements (green PPA)).

2.2.3: Scope 3 (Indirect Emission Sources)

The GHG Protocol identifies fifteen categories of scope 3 emissions. Tortilla's fiscal year (FY) 2023 inventory includes 10 of these categories, identified in Table 2 below.

Table 2. Scope 3 Categories included in the inventory

Category	Definition	Status
Category 1: Purchase goods and services	Extraction, production, and transportation of products purchased or acquired by Tortilla in the reporting year	Calculated
Category 2: Capital goods	Extraction, production, and transportation of capital goods purchased or acquired by Tortilla in the reporting year	Calculated
Category 3: Fuel and energy related activities	Extraction, production, and transportation of fuels and energy purchased or acquired by Tortilla in the reporting year, not already accounted for in scope 1 or 2	Calculated
Category 4: Upstream transportation	The warehousing and transport of goods from Tier 1 suppliers	Calculated
Category 5: Waste	Disposal and treatment of waste generated in operations in the reporting year	Calculated
Category 6: Business travel	Transportation of employees for business-related activities during the reporting year	Calculated
Category 7: Employee commuting	Transportation of employees between their homes and their worksites during the reporting year	Calculated
Category 7: Employee homeworking	Emissions from employees working from home	Calculated
Category 8: Upstream leased assets	Operation of assets leased by Tortilla in the reporting year and not included in scope 1 and scope 2	Not calculated

Category 9: Downstream transportation	The transport and warehousing of sold products, between Tortilla's operations and the end consumer (including retail). These services are not paid for by Tortilla	Calculated
Category 10: Process of sold products	Processing of intermediate products sold in the reporting year by downstream companies	Not calculated
Category 11: Use of sold goods	Emissions from the use of goods sold by Tortilla in the reporting	Not calculated
Category 12: End of life treatment	Waste disposal and treatment of products sold by Tortilla (in the reporting year) at the end of their life	Calculated
Category 13: Downstream leased assets	Operation of assets owned by Tortilla and leased to other entities in the reporting year, not included in scope 1 and scope 2	Not calculated
Category 14: Franchises	Operation of franchises in the reporting year, not included in scope 1 and scope 2	Calculated
Category 15: Investments	Operation of investments (including equity and debt investments and project finance) in the reporting year, not included in scope 1 or scope 2.	Not calculated

2.2.4: Exclusions

The FY 2023 inventory covers all of Tortilla's operations. No material exclusions were made in this calculation.

Table 3. Material exclusions.

Exclusion	Scope	Explanation
N/A	N/A	N/A

Section 3: Green House Gases

Seven major GHGs contribute to the majority of worldwide GHG emissions. These are covered under the Kyoto Protocol, and must be included in GHG inventories according to the GHG Protocol. For ease of understanding, in this inventory, all GHGs were calculated in terms of tCO₂e. tCO₂e is the number of tonnes of CO₂ emissions with the same global warming potential (GWP) as one tonne of another greenhouse gas. Table 4 shows the GWP of the other relevant GHGs for Tortilla's operations:

Table 4. Greenhouse gases global warming potentials

Greenhouse gas	GWP
CO ₂ (carbon dioxide)	1
CH ₄ (methane or natural gas)	28
N ₂ O (nitrous oxide)	265
HFC-134a (1,1,1,2-tetrafluoroethane)	1300

Section 4: Base Year

As part of the journey to Net Zero, companies must set a 'base year.' The selection of the base year should be done on the basis of the availability and completeness of GHG emissions data and take into account how well it represents the business operations i.e., includes relevant subsidiaries, business model and/or production methods. The base year is chosen to act as a comparison year to track emissions over time and is used as the basis for setting and monitoring GHG reduction targets. Due to changes in companies' operations or subsidiaries, the base year can be recalculated to better reflect the business' current make-up.

Tortilla's base year for its GHG emissions inventory is FY2022. Tortilla chose this year due to the completeness and availability of data for all emissions sources within the boundary conditions. FY2022 was chosen as it best represented Tortilla's 'normal' business operations. Tortilla has used the FY 2022 inventory as the baseline to which future years' inventories are compared. Any changes in inventory methodology, boundary conditions (operational or organisational), or facility portfolio will be tracked against the FY2022 inventory, and re-baselining will be completed if necessary.

Due to the availability of Scope 3 Category 2: Capital goods data and the inclusion of Tortilla's acquired company's (Chilango) Purchased goods and services (Scope 3 Category 1) in 2023, Tortilla's 2022 baseline emissions have been adjusted (re-baselined) to reflect these additions (see Table 8). This allows for the data to be comparable and consistent across all years.

4.1: Recalculation Policy

The GHG inventory will be adjusted in response to the aggregate impact of any structural or methodological changes if the resulting adjustment would equate to more than 5% of base year emissions. Adjustments below this threshold are considered insignificant and will be decided case by case.

4.1.1: Adjusting for Structural Changes

Table 5 and Table 6 below list the conditions that would necessitate a recalculation of the base year, as well as changes to Tortilla's portfolio that would not require any recalculation.

Table 5. Baseline adjustment in the case of organic growth or decline

Change Condition	Baseline Adjustment Action
Organic growth under 5%: Increase in production output Changes in product mix resulting in increased emissions Significant opening of new locations or operating units	No baseline adjustment
Organic decline under 5%: Decrease in sales and locations output	No baseline adjustment

Changes in product mix resulting in decreased emissions Closing of facilities or operating units	
---	--

Table 6. Baseline adjustment action for mergers, acquisitions & divestitures

Change Condition	Baseline Adjustment Action
In the event a location is bought during the base year	New location emissions added to base year emissions total
Acquisition of location that did not exist during the base year	No baseline adjustment.
Divestiture from a location that existed during the base year	Subtract the divested location's emissions from overall entity base year emissions.
Divestiture of a location that did not exist during the base year	No baseline adjustment
Transfer of ownership/control of emissions sources	Transfer of operational control to Tortilla is considered the same as an acquisition. Transfer of operational control away from Tortilla (e.g. outsourcing) should be treated the same as a divestiture.

4.1.2: Adjusting for Methodological Changes and Corrections

Should improvements in quantification methodologies be made in the future, these methodologies will be applied to Tortilla's GHG inventory methodology. If these changes affect all years of Tortilla's GHG inventory, changes to all years – including the base year – will be applied.

Table 7 lists any methodology change conditions and the necessary baseline adjustment actions.

Table 7. Baseline adjustment actions for methodology changes

Change Condition	Baseline Adjustment Action
Changes in quantification methodologies or discovery of previous errors	Adjust baseline emissions to be consistent with new approach or to correct errors.
Changes in emissions factors	Select the most up-to-date and accurate emissions factors.

4.2: Adjustments to Base Year

When completing the annual GHG emissions inventory it will be decided if there have been any changes, outlined above, in the reporting year and if they require an adjustment to the base year. Changes made have been outlined in Table 8.

Table 8. Changes that have triggered a change in Tortilla's FY 2022 inventory

Change	Description of change	Reflected in the base year calculation?
Scope 3 Category 1: Purchased goods and services	<p>Purchased goods and services were not provided for Tortilla's acquired business Chilango, in 2022.</p> <p>We have rebaselined the 2022 calculation to include Chilango sites. This was done using a revenue ratio between Tortilla to Chilango restaurants.</p>	Yes
Scope 3 Category 2: Capital goods	Capital goods emissions were recalculated using the most recent version of the EEIO emission factors.	Yes

Section 5: Emissions Calculations

GHG emissions calculations have been performed in accordance with the methodologies outlined by the GHG Protocol using the emissions factors, global warming potentials, primary data sources, and estimation techniques described within this document.

5.1: Scope 1

Scope 1: Stationary Combustion (Natural gas)
Source data
SECR report provided for FY 2023.
Calculation approach
$\text{tCO}_2\text{e Emissions [tonnes]} = \text{Total Annual Fuel Consumed [kWh or litres]} \times \text{Emission Factor}$
Source of emission factors
UK Department for Business, Energy, and Industrial Strategy: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023
Notes
Non-renewable gas contracts from January to September, and renewable gas contracts from October to December (except for one landlord-managed site assumed non-renewable gas), were confirmed with Tortilla via email correspondence.

Scope 1: Fugitive emissions of refrigerant gases
Source data
Site square meterage was provided for all sites
Calculation approach
<p>tCO₂e Emissions [tonnes] = Total Area [m²] × Rate of Loss [kg m⁻²]</p> <p>Rate of Loss = 0.0022 kg m⁻²</p> <p>Refrigerant assumed to be HFC-134a</p>
Source of emission factors
<p>UK Department for Business, Energy and Industrial Strategy: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022</p> <p>Rate of loss was derived from “The World Bank Group Emissions Inventory Management Plan for Internal Business Operations 2014” https://documents.worldbank.org/en/publication/documents-reports/documentdetail/319541467991904684/the-world-bank-group-greenhouse-gas-emissions-inventory-management-plan-for-internal-business-operations-2014</p>
Notes
In future years, maintenance reports for each refrigerant containing piece of equipment should be collected to assess the actual amount and type of refrigerant added to the equipment during the maintenance period.

5.2: Scope 2

Scope 2: Location-based emissions from electricity consumption
Source data
SECR report provided for FY 2023
Calculation approach
$\text{tCO}_2\text{e Emissions [tonnes]} = \text{Total Annual Fuel Consumed [kWh]} \times \text{Emission Factor [UKGOV]}$
Source of emission factors
UK Department for Business, Energy and Industrial Strategy: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023
Notes
<p>The same split of renewable to non-renewable electricity consumption for 2022 was applied to 2023. Twenty five percent renewable energy consumption in 2022 was confirmed by Tortilla.</p> <p>In line with the WRI and WBCSD GHG Protocol Corporate Standard, scope 2 emissions have been reported in two ways; location-based and market-based. Location-based uses grid average emissions factors to calculate the emissions, the kWh is multiplied by the region- or country-specific emissions factor. Whereas market-based reflects emissions from energy Tortilla has opted to purchase (or elected not to purchase) through a specific supplier from specific sources, i.e., guaranteed green energy contracts or installation of green energy production on-site (solar panels/wind turbines etc).</p>

5.3: Scope 3

Scope 3: Category 1: Purchased goods and services
Source data
<p>Direct spend (GBP) and volume (kg) data was provided and broken down by goods and services for the year. Separate datasets were provided for:</p> <ul style="list-style-type: none"> • Food (sourced through Equinox) • Drinks (sourced through Equinox) • Expense sheet items (purchased directly by Tortilla) • Packaging and other consumables (sourced through Equinox)
Calculation approach
<p>Emissions inventory for spend data was conducted using Environmentally Extended Input-Out (EEIO) analysis. Emissions were estimated by multiplying spend with the corresponding, sector-specific EEIO emission factor, as follows:</p> $\text{tCO}_2\text{e Emissions [tonnes]} = \text{Total spend in 2021 [USD]} \times \text{Emission Factor [Mass/US\$]} \text{ (adjusted for inflation to 2023 Spend [US\$])}$ <p>Exchange rate applied to convert kgCO₂e/USD factor to GBP and adjusted for inflation to 2023 Spend (12.4%).</p> <p>Where volume data was available and relevant, the EcoInvent LCIA V 3.9 database was used. The Environmental Footprint (EF) LCI European Platform on LCA 2018 emission factors were used in this case:</p> $\text{tCO}_2\text{e Emissions [tonnes]} = \text{Total volume [Kg]} \times \text{Emission Factor [EF LCA 2018]}$ <p>In cases where the relevant emissions factor was not available on the databases listed above, other sources were used, these are listed below.</p>
Source of emission factors
<p>EEIO factors:</p> <p>US EPA Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities https://catalog.data.gov/dataset/supply-chain-greenhouse-gas-emission-factors-for-us-industries-and-commodities</p> <p>LCA factors:</p> <p>EcoInvent LCIA 3.9 (LCA database)</p> <p>Carbon Cloud factors: https://carboncloud.com/</p> <p>Inflation data: CPI Inflation Calculator https://www.bls.gov/data/inflation_calculator.htm</p>

Notes

EEIO analysis uses spend data to estimate the emissions associated with purchased goods and services by multiplying the amount spent on different types of goods and services by publicly available emission factors for different industrial activities (kg CO₂e/\$ spent). These emission factors are derived by allocating national GHG emissions to groups of finished products based on economic flows between industry sectors.

For future calculations, Tortilla should carry out supplier surveys to gather more granular data, and ensure that suppliers provide purchased goods and services data for Chilango.

Scope 3: Category 2: Capital goods

Source data

Direct spend (GBP) capex additions data was provided

Calculation approach

Emissions inventory for spend data was conducted using Environmentally Extended Input-Out (EEIO) analysis. Emissions were estimated by multiplying spend with the corresponding, sector-specific EEIO emission factor, as follows:

$$tCO_2e \text{ Emissions [tonnes]} = \text{Total spend in 2021 [USD]} \times \text{Emission Factor [Mass/US\$]} \text{ (adjusted for inflation to 2023 Spend [US\$])}$$

Source of emission factors

EEIO factors:

US EPA Supply Chain Greenhouse Gas Emission Factors for US Industries and Commodities

<https://catalog.data.gov/dataset/supply-chain-greenhouse-gas-emission-factors-for-us-industries-and-commodities>

Inflation data:

CPI Inflation Calculator https://www.bls.gov/data/inflation_calculator.htm

Notes

Tortilla's capital goods expenditure was lower in 2023 compared to 2022. This is largely due to fewer purchases made for 'Furniture and Fixtures'.

EEIO analysis uses spend data to estimate the emissions associated with purchased goods and services by multiplying the amount spent on different types of goods and services by publicly available emission factors for different industrial activities (kg CO₂e/\$ spent). These emission factors are derived by allocating national GHG emissions to groups of finished products based on economic flows between industry sectors.

In the future, by utilising the relationships with suppliers, Tortilla can demonstrate to all internal and external stakeholders improved methodologies for carbon accounting. As suggested in the previous category, this would start with carrying out supplier surveys to gather more granular data.

Scope 3: Category 3: Fuel and energy-related activities (not included in Scope 1 and 2)

Source data

The following data was provided:

- SECR report

Calculation approach

The calculations accounted for electricity and gas upstream sources connected to Tortilla's use of energy:

Electricity use:

WTT Electricity Generation emissions, representing the upstream emissions associated with consumed electricity:

$$tCO_2e \text{ Emissions [tonnes]} = \text{Total Electricity Consumed [kWh]} \times \text{WTT Generation Emission Factor}$$

Electricity T&D (Transmission & Distribution) Loss emissions, representing the generation emissions associated with energy lost due to T&D:

$$tCO_2e \text{ Emissions [tonnes]} = \text{Total Electricity Consumed, by country [kWh]} \times \text{T\&D Emissions Factor}$$

Electricity WTT T&D Loss emissions, representing the WTT emissions associated with T&D losses:

$$tCO_2e \text{ Emissions [tonnes]} = \text{Total Electricity Consumed [kWh]} \times \text{Country-specific T\&D WTT Emission Factor}$$

Gas use:

WTT Gas Generation emissions, representing the upstream emissions associated with consumed gas:

$$tCO_2e \text{ Emissions [tonnes]} = \text{Total Gas Consumed [kWh]} \times \text{WTT Generation Emission Factor}$$

Source of emission factors

UK Department for Business, Energy and Industrial Strategy:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Notes

None

Scope 3: Category 4: Upstream transportation and distribution

Source data

Food, beverage and general supply quantities were provided. Data on mileage covered between depot and Tortilla site was provided for deliveries. Ambient / chilled / frozen delivery temperatures provided for food items (assumed that drinks and general supplies delivered in ambient temperature).

Calculation approach

The following initial calculations and assumptions were made:

- Weights were calculated based on research on the average weight of food and beverage items
- Total deliveries and total distance used to calculate average distance (in KM) of each delivery
- Assumed HGV diesel for emissions factors (used All HGVs and Refrigerated HGVs)

Emissions were calculated by taking the weight of goods within each vehicle type and multiplying by the average distance and the relevant emissions factor:

$tCO_2e \text{ Emissions [tonnes]} = \text{total purchased goods weight [tonnes]} \times \text{average distance travelled [km in year]} \times \text{transport type emission factor [tonne.km]}$

Source of emission factors

UK Department for Business, Energy and Industrial Strategy: [Error! Hyperlink reference not valid.](https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023)
<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Notes

Upstream Transport and Distribution was only calculated for food and beverage products (which make up a large percentage of Tortilla's goods purchased).

To improve accuracy in future year calculations, the following data should be measured:

- Accurate data on total weight of each food item transported
- Make and model of the lorries used alongside the fuel used for transporting these goods

Scope 3: Category 5: Waste generated in operations

Source data

Waste volume generated at all sites [kg] and disposal streams [recycled, landfill, incineration etc.] were provided for all sites managed by Biffa and First Mile for January to December 2023. Sites that were not managed by Biffa or First Mile had their waste estimated based on revenue.

Calculation approach

Initial calculations and assumptions made:

- A kg/£ ratio was calculated using the Biffa and First Mile waste data and the total revenue for restaurants managed by Biffa and First Mile.
- For restaurants where no waste data was provided, an estimated total annual volume of waste (in kgs) was determined by multiplying their revenues by the kg/£ ratio.

Biffa disposal methods proportions applied across all waste and national stats used to approximate split between landfill and incineration for 'General Waste'

Carbon emissions calculations were made using the formula below:

tCO_{2e} Emissions [tonnes] = Total Waste Produced, by waste type [tonnes] × specific waste disposal method and waste type Emission Factor

Source of emission factors

UK Department for Business, Energy and Industry Strategy:

<https://assets.publishing.service.gov.uk/media/649c5358bb13dc0012b2e2b7/ghg-conversion-factors-2023-full-file-update.xlsx>

Notes

The proportion of general waste that is incinerated and landfilled was obtained from DEFRA Local Authority waste:

<https://www.gov.uk/government/statistical-data-sets/env18-local-authority-collected-waste-annual-results-tables>

Scope 3: Category 6: Business travel

Source data

- Reimbursed spend for car mileage reclaim
- Spend for journeys by transport type (i.e. flight, bus, train, tube, taxi)

Calculation approach

Distance was calculated using an average cost per mile multiplier

Once total distance per vehicle type had been calculated / estimated, the following formula was used to calculate emissions:

$tCO_2e \text{ Emissions [tonnes]} = \text{total distance travelled [km]} \times \text{transport type emissions factor}^*$

*Air travel has separate emissions factors for long-, medium- and short-haul flights, and an average has been used

Source of emission factors

UK Department for Business, Energy and Industrial Strategy:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Average cost per litre of fuel:

<https://www.quora.com/How-far-can-a-car-travel-with-1-litre-of-petrol>

Average cost per mile (flight):

<https://www.kayak.co.uk/news/best-value-flight-routes-per-mile/>

Average cost per mile (bus):

<https://www.statista.com/statistics/301038/average-bus-trip-distance-by-region-uk/>

Average cost per mile (taxi):

<https://www.nidirect.gov.uk/articles/taxi-fares>

Notes

For mileage reclaim, the average emission factor of petrol and diesel was used.

In the future, more granular data on flights and train origin and destination, and a class of travel (business, economy etc) should be collected for better GHG emissions calculation.

Scope 3: Category 7: Employee commuting

Source data

Data on days worked by restaurant staff.

The number of HQ and Operations staff, and their approximate working patterns (working on-site / office or working from home).

Calculation approach

Employee commuting GHG emissions were estimated:

All restaurant staff - assumed to be on site 100%

Assumed that HQ and field staff work from home 40% of the time (2 days) and work in the office or on-site 60% of the time (3 days). This split was provided by Tortilla.

Average commuting transport type for the UK [car*, cycle**, bus, rail, walk**] and the average distance for each type of commute used to calculate transport distances:

Distance travelled per day [km or miles] per transport type = number of days worked on site/office × % transport type × average distance of commute for that transport type [km or miles]

Emissions were then calculated by applying the appropriate Emissions Factor:

tCO₂e Emissions [tonnes] = Total distance travelled [km or miles] × Mode-specific Emission Factor

* Broken down further into fuel types petrol, diesel, hybrid, electric

**Have no emissions associated with these transport types

Source of emission factors

UK Department for Business, Energy and Industrial Strategy:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Average commuting transport type:

<https://www.gov.uk/government/collections/transport-statistics-great-britain>

Average commuting transport distance:

<https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons>

Car fuel type:

<https://www.rac.co.uk/drive/electric-cars/choosing/road-to-electric/>

<https://www.racfoundation.org/motoring-faqs/environment#a8>

Notes

In future years commuting surveys should be used to acquire more accurate data for transport types specific to Tortilla's employees

Scope 3: Category 7: Employee homeworking

Source data

Data on days worked by restaurant staff for the year

The number of HQ and Operations staff, and their approximate working patterns (working on-site / office or working from home)

Calculation approach

To calculate the energy consumption required for employees to work from home (heating and electricity for office equipment) the number of working from home days was calculated by applying the ratio of 3:2 days worked on site/office to worked from home to the total number of days worked.

To Calculate Emissions:

$tCO_2e \text{ Emissions Energy Consumption [tonnes]} = \text{Total Number of Days Working from Home} \times \text{Emissions Factor}$

To calculate the emissions from waste produced from working from home, UK average household waste per person numbers were used and it was assumed that 1/3 of this waste was a result of working from home this was then split into recycled and landfill using average household recycling patterns then calculated the same as for waste.

To calculate water usage as a result of working from home, the average number of times people use the toilet in a day was multiplied by the average cistern volume divided by two assuming this would be use during working hours then multiplied by the number of employees working from home.

$\text{Total Water Use Toilets [litres]} = \text{Total Number of Days Working from Home} \times \text{Average Cistern Volume [Litres]} \times \text{Average Number of Toilet Uses Per Day} \times 0.5$

It was also assumed that people drink 1 litre of water while at work

$\text{Total Water Use Drinking [litres]} = \text{Total Number of Days Working from Home} \times \text{Average Amount of Water Drunk at Work [litres]}$

$\text{Total Water Use [litres]} = \text{Total Water Use Toilets [litres]} + \text{Total Water Use Drinking [litres]}$

Total water use could then be used to calculate emissions as done with water previously

Source of emission factors

UK Department for Business, Energy, and Industrial Strategy:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Notes

Waste Data:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040756/Statistics_on_waste_managed_by_local_authorities_in_England_in_2020_v2rev_accessible.pdf

<https://www.statista.com/statistics/322535/total-household-waste-volumes-in-england-uk-per-person/>

Water Data:

<https://www.waterwise.org.uk/save-water/>

<https://www.bladderandbowel.org/bladder/bladder-conditions-and-symptoms/frequency/>
<https://www.nhs.uk/live-well/eat-well/food-guidelines-and-food-labels/the-eatwell-guide/>

Scope 3: Category 9: Downstream transportation and distribution

Source data

Total delivery orders for Deliveroo and UberEats, delivery radius, percentage breakdown of vehicle type (although no breakdown of fuel type for cars) for deliveries, and average weight order

Calculation approach

50% of maximum delivery distance used as a reasonable distance average for all deliveries.

To calculate the total journey distance per vehicle type, the average distance was multiplied by the number of journeys made per vehicle type:

$$\text{Total distance [km]} = \text{number of trips by transport type} \times \text{average journey length for transport type [km]}$$

To calculate the emissions for each delivery type:

$$tCO_2e \text{ Emissions [tonnes]} = \text{total distance travelled [km]} \times \text{transport type emissions factor}$$

Source of emission factors

UK Department for Business, Energy, and Industrial Strategy:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Notes

In future years Tortilla should track the distances travelled by their delivery drivers and the fuel consumed.

Scope 3: Category 12: End of life treatment

Source data

Total delivery orders for Deliveroo and UberEats, average order composition (1 x burritos and 1 x bowl) and packaging of average order composition items provided

Calculation approach

Total volume of packaging was calculated by multiplying the packaging used for an average order and the total number of deliveries made over the year.

To calculate the weight (kg) for total packing, publicly available information on weight of materials was sourced. It was assumed that a similar number of takeaway orders were made directly at restaurants as they were through delivery partners.

It was assumed that one kraft bag was used per delivery and that two utensils and tissues were provided per order.

It has been assumed that all utensils and napkins are landfilled and packaging of food products (i.e. bags, foil and bowls) – UK average waste disposal methods used.

To calculate the emissions:

tCO₂e Emissions [tonnes] = Total Waste Produced, by waste type [kg] × specific waste disposal method and waste type Emission Factor

Source of emission factors

UK Department for Business, Energy, and Industrial Strategy:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Notes

In the future, the following should be tracked to provide more accurate data:

- Volume of specific packaging distributed via all takeaways, including through both Tortilla delivery partners and directly at restaurants
- Run a survey to gather more accurate data on customer disposal methods of takeaway packaging and using this to influence the recyclability of our packaging and positively change disposal behaviours

Scope 3: Category 14: Franchises**Source data**

Total annual energy consumption or site square meterage provided for all franchise restaurants

Calculation approach

Where square meterage was provided, electricity, gas usage and refrigerants were estimated using national average electricity and refrigerant intensity factors:

Total annual Fuel [kWh] or refrigerant consumed and produced = *square meterage [m²] x electricity and refrigerants per m²*

tCO₂e Emissions [tonnes] = Total annual Fuel [kWh] or refrigerant consumed and produced x Emission Factor [UKGOV]

The site areas were not provided for restaurants with electricity consumption data available. Therefore, refrigerants were not calculated for these sites which would not constitute a significant proportion of overall emissions.

Source of emission factors

UK Department for Business, Energy, and Industrial Strategy:

<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023>

Notes

In future years Tortilla will aim to collect actual electricity, gas and refrigerants consumption data using a survey with franchises.



Sustainable Advantage

Hersham Place Technology Park

Molesey Road, Hersham

Walton-on-Thames

Surrey

KT12 4RS

0203 544 2020

info@sustainable-advantage.com

sustainable-advantage.com