GBTA Convention 2022 Event Footprint

GBTA Global Business Travel Association

thrust

The content in this report was prepared by Thrust Carbon, an award winning green technology firm, focused on a world where our actions don't have to cost the Earth.

About the Event

Event: GBTA Convention 2022

Date: August 14th – 17th, 2023

Location: San Diego, CA, USA

Number of attendees: 4,600+

Number of exhibitors: 200

Total carbon emissions: 4700.6 tons of CO2e

Why This Report

Recognizing the significant environmental footprint of meeting and events, the Global Business Travel Association (GBTA) is committed to tracking, managing, and reducing the emissions to address and mitigate the environmental impact associated with its events.

GBTA's dedication to reducing its environmental impact extends beyond event-specific measures, encompassing a broader commitment to fostering a culture of environmental responsibility within the business travel sector with the GBTA Foundation Sustainability Initiative.

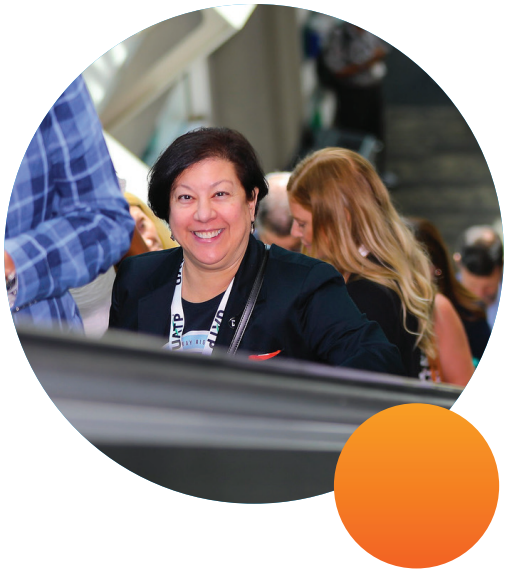
Read more at gbtafoundation.org/planet.

Event Footprint

The **carbon footprint of GBTA Convention 2022 is 4700.6** tons of CO2e.

This is equivalent to...

- The carbon capture by 142 blue whales
- Producing 1.98 million bars of dark chocolate
- The carbon captured in a forest of 3,102 mature oak trees
- To driving a small car 42.7 million kilometers. You could also drive to the moon 111 times
- To 1.26 million days of video conferencing

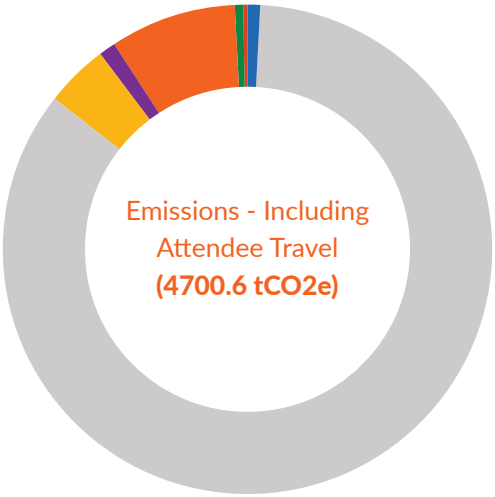


This is a footprint of 1.02 tons of CO2e per attendee.

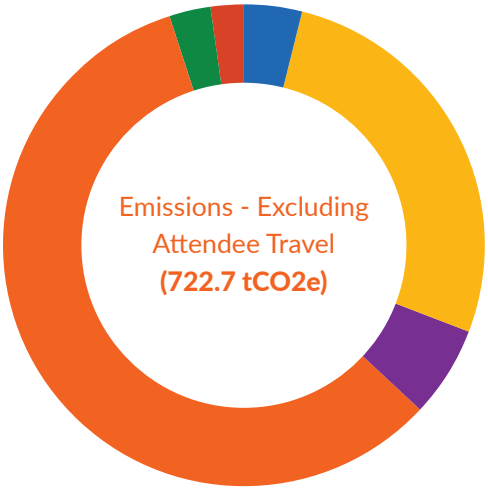
Attendee Travel Emissions

A significant data collection exercise and complex calculation were executed to understand the impact of **attendee travel**, **representing 81% of total emissions**.

A 'Traveling More Sustainably' guide was issued to attendees in advance of Convention to help them reduce their travel emissions.



- Staff Travel **1%**
- Event Venue **6%**
- Food & Beverage **1%**
- Shipping **23%**
- Materials **0.46%**
- Waste Disposal **0.26%**
- Attendee Travel **81%**



- Staff Travel **4%**
- Event Venue **27%**
- Food & Beverage **6%**
- Shipping **58%**
- Materials **3%**
- Waste Disposal **2%**

Offsetting Emissions

GBTA has offset a total of 722.7 tCO2e, equivalent to the emissions from staff travel, venue usage, food & beverage, shipping, material use and waste (688.28 tCO2e), plus a 5% uncertainty buffer (34.42 tCO2e).

This has been spread across two verified offset schemes:

Green Wins (1/2)

GBTA provided a free shuttle service to the venue, saving 57.9 kgCO2e for every 100 attendees who used this instead of a taxi.

The San Diego Convention Centre sent 7.5 tons of non-food waste for recycling, saving 3.9 tCO2e versus **landfill.** A saving of 26.9% within the Waste Disposal emissions category.

771 kg of food waste was re-directed to employee dining, composting or local farms, saving more than 365 kgCO2e **versus landfill.** A saving of 3.3% within the Food & Beverage emissions category.

Photo credit: San Diego Convention Center

Green Wins (2/2)

By purchasing compostable cups instead of single-use plastic cups bound for landfill, GBTA eliminated 241.5kgCO2e. A saving of 1.1% within the Food & Beverage emissions category.

GBTA chose an all-vegetarian menu for the main stage Monday lunch, saving 7.4 tCO2e. A saving of 14.7% within the Food & Beverage emissions category.

By going digital instead of ordering 4,000 paper business cards, GBTA saved 784kgCO2e. A saving of 3.4% within the Materials emissions category.

Detailed Footprint

Staff Travel

Air travel	25.56/t CO2e
Local commutes	2.73/t CO2e
Hotel stays	2.51/t CO2e
Conference transport - shuttle	7.00/t CO2e
	30.80/t CO2e

Attendee Travel

Air travel	2829.54/t CO2e
Car travel	720.30/t CO2e
Rail	28.05/t CO2e
Coach/Bus	26.56/t CO2e
Conference transport - shuttle	0.87/t CO2e
Hotel stays	183.17/t CO2e
	3788.49/t CO2e

Event Venue

Electricity usage	154.47/t CO2e
Gas usage	28.98/t CO2e
Water usage	0.19/t CO2e
	183.64/t CO2e

Food & Beverage

Event Food	39.90/t CO2e
Event Beverages	2.94/t CO2e
	42.84/tCO2e

Shipping

Shipping	398.43/t CO2e
	398.43/t CO2e

Materials

Graphics & Signage	19.85/t CO2e
Compostable Cups	0.35/t CO2e
Sustainable Paper	0.034/t CO2e
600 Lanyards	0.25/t CO2e
Water bottles (swag)	0.082/t CO2e
T-Shirts (AA race)	1.40/t CO2e
	21.96/t CO2e

Waste Disposal

General trash	8,939/t CO2e
Materials recycling	955/t CO2e
F&B Composting	708/t CO2e
	10,602/t CO2e

Uncertainty buffer (5%)	223.84/t CO2e
Total	**4700.60/t CO2e**

Methodology

Staff Travel

GBTA provided Thrust Carbon with a list of staff flight bookings with data including start and end airports as well as airline, record locator and travel date data. These journeys were processed by the Thrust Calculator, which combines existing flight emission methodologies (such as ICAO and DEFRA) with novel datasets to retrieve the most appropriate carbon value for each given journey depending on the exact input data available.

Hotel emissions were calculated by applying the number of room nights to the relevant nightly emissions factor for San Diego from the Cornell Hotel Sustainability Index.

For local commuting, a daily average car emissions figure was applied for each day of the convention for the one GBTA staff member who commuted locally. The total number of hours worked by event contract staff was provided. This was used to estimate the number of daily commutes by contractors. A daily average car emissions figure was applied for each contractor for each day of the convention.

Attendee Travel

To understand how attendees travelled to San Diego, GBTA collected a large sample of travel start and end points via the registration process. This was extrapolated across the entire attendee count to calculate the proportion and number of journeys within certain distance bands. Travel modes were applied to each distance band based on US EPA guidelines, and relevant US EPA emissions factors applied.

Hotel emissions were calculated by applying the number of room nights to the relevant nightly emissions factor for San Diego from the Cornell Hotel Sustainability Index.

To calculate local shuttle emissions, the total distance traveled over the course of the week was calculated. An emissions factor from WinACC (Winchester Action on Climate Change), based on DEFRA, was then applied.

Event Venue

The event venue supplied precise electricity, gas and water usage figures for Convention. Emissions factors from the USA EPA and DEFRA were then applied, including the specific electricity emissions factor for California.

Food & Beverage

All food and beverage portions ordered for GBTA Convention 2022 were counted and analysed in detail. Emissions were then calculated using methodology and research by the International Olympic Committee, who have conducted substantial research into the average carbon emissions of meals and beverages of various types. Where a particular food is not specified within the IOC dataset, we applied a 'nearest' food type or used multipliers from other sources.

Shipping

The total shipping weight for materials for GBTA Convention was provided. Shipping distances were applied based on data from the US Bureau of Transportation Statistics.

Materials

Graphics and signage - the weight of ordered graphics and signage weight of graphics and signage was adjusted and combined with emissions factors of typical representative materials.

Compostable cups - Research on the GHG emissions of compostable cup production and disposal from the Journal of Cleaner Production was utilized. A reasonable 50% composting rate was assumed (100% would result in lower emissions, but may be unrealistic).

Sustainable paper - The weight of paper ordered was estimated based on the available details, and the relevant DEFRA material f actor applied.

Lanyards - Average material weights (fabric and metal) for each lanyard were assumed based on product information from lanyard retailers, and DEFRA material factors applied to the total.

Water bottles - A factor for emissions per water bottle was applied, based on a summary from the Beverage Industry Environmental Roundtable, The Stanford Magazine, The Pacific Institute and the journal, Environmental Research Letters.

T-shirts - Research on a wide variety of different t-shirt types, published by Carbonfact, was utilised.

Waste Disposal

The event venue provided data on waste quantities, types and disposal methods (landfill, recycling or compost). USA EPA emissions factors were applied.

Uncertainty Buffer

While every effort is taken, it is not possible to know every single emission. We therefore add a reasonable buffer (5%), to capture unknown emissions.