

Thrust Carbon Methodology

Version 2025-10-01



Travel, made effortlessly green

1. Introduction

The Thrust Carbon methodology is a combination methodology. It utilises best practice from many methodologies, with improved input data, to supply best-in-class carbon calculations. We recommend reading our Philosophies section to first understand *why* we take this approach, and then continuing to our specific methodology section for each calculation.

2. Table of contents

1. Introduction	2
2. Table of contents	2
3. Philosophies of the Thrust Carbon methodology	5
3.1. Our methodology should stand on the shoulders of giants	5
3.2. Multiple methodologies can – and should – be used	6
3.3. Air example	6
3.4. Climate science is evolving fast, and so should methodologies	6
3.5. Re-baselining & recalculating should be embraced	7
3.6. Balancing useful analysis and diminishing calculator returns	8
4. Base approach to all methodologies	9
4.1. CO ₂ equivalents (CO ₂ e)	9
4.2. Carbon from infrastructure construction	9
4.3. Using correct annual underlying methodologies	9
5. ISO 14083; What is it and why is it important?	10
5.1. Definition and overview of ISO14083	10
5.2. Key benefits of ISO 14083	10
5.3. Comparison to other ISO standards (e.g., ISO 14067 and 14064)	10
5.4. Key principles of ISO 14083 applied in our ISO methodologies	12
5.5. Aligning our methodologies to ISO14083	13
6. Carbon emission methodologies overview	14
6.2. Air travel	16
6.3. Rail travel	20
6.4. Car travel (rental and mileage)	20
6.5. Hotel stays	21

Together, we can ensure our actions don't have to cost the earth. 2

6.6. Taxi travel	21
6.7. Ferry travel	22
6.8. Coach travel	22
7. Beyond carbon methodologies overview	23
7.1. Hotel sustainability index (HSI)	23
CARBON METHODOLOGIES In Detail	24
8. Air travel	25
8.1. Actual fuel consumption	25
8.2. Thrust Carbon (ICAO+) methodology	26
8.3. ICAO	31
8.4. Google Travel Impact Model (TIM)	32
8.5. IATA CO2 Connect	33
8.6. DEFRA+ air distance-based	33
8.7. DEFRA air distance-based	37
8.8. New Zealand methodology	39
8.9. Ademe	40
8.10. EPA	40
8.11. Air spend methodology	41
9. Rail travel	43
9.1. Local rail emission factors distance-based	43
9.2. DEFRA rail distance-based	48
9.3. Rail spend methodology	49
10. Car travel (Rental and Mileage)	51
10.1. DEFRA car fuel-based	51
10.2. DEFRA car distance-based	52
10.3. Car spend methodology	54
11. Hotel stays	56
11.1. Hotel carbon measurement initiative (HCMi)	56
11.2. Cornell hotel sustainability benchmarking initiative (CHSB)	57
11.3. Hotel spend methodology	59
12. Taxi & ride-share travel	61
12.1. DEFRA taxi distance-based	61
12.2. Taxi spend methodology	62
13. Ferry travel	64

13.1. DEFRA ferry distance-based	64
13.2. New York waterways	65
14. Coach travel	66
14.1. DEFRA coach distance-based	66
14.2. Coach spend methodology	67
Meetings ancillary emissions methodology	69
15. Generic travel	69
15.1. First mile emission	69
15.2. Main body emission	69
15.3. Last mile emissions	70
16. Meeting rooms	71
17. Digital attendee	71
18. Catering & food waste	71
18.1. Food & beverage emissions	72
18.2. Food waste calculation	72
BEYOND CARBON METHODOLOGIES In Detail	74
19. Thrust carbon hotel sustainability index (TC-HSI)	75
19.1. Outputs from the TC-HSI	75
19.2. How we score hotels	75
20. Appendix	77
20.1. ACRISS Mapping table	77
20.2. Emission factor table	78
20.3. Calculation Examples	79
21. Glossary	80
Changelog	81

3. Philosophies of the Thrust Carbon methodology

3.1. Our methodology should stand on the shoulders of giants

The world's leading methodologies are created by passionate climate scientists and researchers with decades of experience. They have prodded and challenged general assumptions and received wisdom to create methodologies that are state-of-the-art.

Thrust Carbon therefore looks to stand on the shoulders of these great methodologies. We look to ask: what is the best methodology for a given dataset? Is there better input data that can be plugged into the existing methodology? Are there adjustments that can be made to the methodology to further increase accuracy?

An example of how we amend existing methodologies to increase accuracy:

- The ICAO air methodology does not include a multiplier for the indirect effects of carbon emissions at altitude (also known as radiative forcing). However, this is now an accepted multiplier that is found in other leading methodologies such as DEFRA¹, so we adjust the ICAO methodology in order to obtain this increased level of accuracy.

Occasionally we will conduct our own research if we do not believe that existing data is sufficient. For example:

- Methodologies that utilise aircraft seat capacities will rely on the manufacturer's handbook for maximum seating. However, capacities can vary by up to 20% between airlines depending on their seating configurations, and can therefore have a substantial impact on final calculations. We have therefore conducted substantial additional research to source real-world configurations of aircraft seating.

¹ Note: In this document, the UK Government's Greenhouse gas reporting: conversion factors, which are currently owned by Department for Energy Security and Net Zero, (aka DESNEZ) as of July 2024, are referred to by their colloquial name i.e. the 'DEFRA Emissions Factors' or 'DEFRA'.

3.2. Multiple methodologies can – and should – be used

We firmly believe that different methodologies have different strengths for different datasets, and therefore it is appropriate to use differing methodologies in the same calculation year to reach the most accurate carbon calculation.

3.3. Air example

Companies are often encouraged to choose between the ICAO and DEFRA methodologies.

- The ICAO methodology enables emissions for individual aircraft types to be calculated based on real-world fuel burn data for aircraft, making it a perfect choice when you know the exact aircraft type of a flight.
- The DEFRA methodology has conducted extensive research to know average flight emissions but doesn't allow specific emissions of different aircraft types to be factored into the calculation.

Therefore, the most accurate way of calculating a business's footprint is to use both methodologies: when you know the aircraft type the ICAO methodology is superior, but when you do not know the aircraft type the DEFRA methodology will return the best-researched average.

3.4. Climate science is evolving fast, and so should methodologies

New climate science is being published daily. Likewise, vendors are opening up and providing more data on a daily basis. We can use this to provide better calculations and useful analysis, which is the ultimate goal of climate focussed businesses.

Therefore, we do not restrain ourselves by calendar years and publication dates. When a better method of calculation is available, it is investigated by the team. If appropriate, our methodology is updated, and we republish this document to include the best available calculation methodologies.

If clients would like to ensure all calculations in the same reporting period utilise the same methodology before publicly disclosing emissions (e.g. as part of CDP reporting), they can easily use their preferred Thrust Carbon tool to trigger a recalculation at the end of the reporting period.

3.5. Re-baselining & recalculating should be embraced

It is important that every business builds an accurate picture of their carbon emissions. However, the constantly evolving nature of climate science means that a businesses footprint calculation might change over time. This evolution should be celebrated by businesses, and they should take pride in the fact they are striving to be more accurate each time they disclose their carbon emissions.

When using the Thrust Calculator, carbon emission calculations are completed at the point of data input i.e. data for flights in September entered into the calculator in April. Carbon emissions are calculated in April when the data is added.

Exchanges and refunds are then adjusted using a unique identifier in the subsequent data uploads.

When using Thrust Carbon data for external reporting, we recommend that calculations are refreshed to ensure the calculations using the most up to date data available at the time of reporting.

For this reason, Thrust Carbon makes it effortless to recalculate and re-baseline emissions. If you're unsure *when and how* to re-baseline, we suggest you start by reading the [GHG Protocol](#) guidance on re-baselining thresholds, and talk to your Thrust Carbon account manager.

Key dates for air carbon emission numbers updating

- At time of booking, the estimated emissions will be based on the most recently available data for the supplier.
- Any pre-trip changes (e.g. aircraft type changes), will lead to a newly calculated emission for the new aircraft.
- 3 months post trip, accurate 'load factor' and 'freight factor' data will arrive for US carriers.
- 6 months post trip, accurate 'load factor' and 'freight factor' data will arrive for non-APAC carriers.
- 12+ months post trip, semi-accurate 'load factor' and 'freight factor' data will arrive for APAC carriers (some APAC carriers are only publishing average load factors for the year, rather than monthly data).

- At any time, the leading research could also be updated. At least once every five years you should expect a research change that may lead to a change in 'best practice' methodology.

3.6. Balancing useful analysis and diminishing calculator returns

Thrust Carbon believes in giving businesses the tools they need to reduce their carbon footprint, rather than just a raw emissions number. We believe that the analysis insights are more useful than a CO₂ number, and we would advise clients to avoid the diminishing returns of some carbon calculators.

For example, we are sometimes asked about the different approaches airlines take to calculating the impact of taxiing at an airport. However, these typically result in a carbon difference of around a percentage point, and we have never seen this output used in a useful way. This contrasts with elements such as airline load factor, aircraft type, and freight-to-passenger factors, which have a far larger impact on an aircraft's emissions (as high as 30%), and analysis can be meaningfully used to influence the choice between rival flight options.

This is not to say that we do not intend to increase the accuracy of our calculators (in fact, if you can think of an area that you wish had greater accuracy, we probably already have a working group researching it), but we want clients to know **we prioritise analysis tools that help them reduce their footprint.**

4. Base approach to all methodologies

4.1. CO₂ equivalents (CO₂e)

According to the Kyoto Protocol, there are seven primary greenhouse gasses that are contributing to climate change. These are: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆) and nitrogen trifluoride (NF₃).

All of these greenhouse gasses have different intensities of effect on the climate. To create a more accessible and usable final number, we combine these effects to produce an overall number of equivalent CO₂ (CO₂e).

4.2. Carbon from infrastructure construction

We have yet to see a methodology that accounts for the substantial carbon released during infrastructure construction. This is extremely disappointing, since airports, rail tunnels, highways, and ports are some of the largest infrastructure projects on the planet, and their carbon should be divided amongst users of that infrastructure. In future methodologies, we hope to account for this deficit.

4.3. Using correct annual underlying methodologies

Many underlying methodologies that Thrust Carbon relies upon are published on an annual basis. Where this occurs, Thrust Carbon will use the most appropriate annual methodology. For example, for 2019 travel calculations, Thrust Carbon may apply the 2019 DEFRA methodology.

Annual methodologies are typically published midway through the calendar year, so we *highly recommend* clients rebaseline and recalculate their emissions before publicly reporting their emissions to ensure the latest and most up-to-date emissions factors are used (see the philosophies of Thrust Carbon section).

5. ISO 14083; What is it and why is it important?

We have recently begun offering an ISO 14083-compliant version of most of our travel methodologies. Please see the list of available methodologies below. If an ISO 14083-compliant version of your chosen methodology is not available, please contact your normal Thrust Carbon representative.

Please note you will only have been moved on to ISO methodologies once the settings are configured as shown below:



The above settings dashboard is only available for web app/SaaS users. An API user should contact their Thrust Carbon representative.

5.1. Definition and overview of ISO14083

ISO 14083 is a comprehensive standard that provides guidelines for quantifying and reporting greenhouse gas (GHG) emissions from transportation activities. It aims to ensure accurate and transparent GHG emissions calculations across various modes of transport, promoting environmental accountability and consistency in emissions reporting. This standard is critical for businesses looking to assess and manage their carbon footprint related to transportation.

5.2. Key benefits of ISO 14083

The benefits of aligning with ISO 14083 include:

- Improved accuracy and consistency in GHG emissions reporting.
- Enhanced credibility and trust with stakeholders due to standardized reporting.
- Better insights into emissions sources and opportunities for reduction.

5.3. Comparison to other ISO standards (e.g., ISO 14067 and 14064)

While ISO 14083 focuses specifically on GHG emissions from transportation, other ISO standards address broader aspects of emissions and environmental impact:

- **ISO 14067:** Concentrates on the carbon footprint of products, providing guidelines for quantifying and communicating the lifecycle GHG emissions of goods and services.
- **ISO 14064:** Offers guidance on quantifying, monitoring, reporting, and verifying GHG emissions at the organizational level. It consists of three parts, covering organizational emissions, project-level emissions, and validation and verification of emissions reports.

ISO 14083 complements these standards by providing detailed methodologies tailored to the transportation sector, thereby enhancing the overall framework for managing and reducing GHG emissions.

5.4. Key principles of ISO 14083 applied in our ISO methodologies

Introduction to key principles

ISO 14083 outlines several fundamental principles for accurate and transparent GHG emissions calculations. These principles are integral to the methodologies presented as ISO aligned in this document and ensure that our calculations meet the highest standards of accuracy and reliability.

Explanation of each principle

Principle	Explanation
Accuracy	• Ensure precise and detailed data collection for all relevant transportation activities. • Use verified and reliable data sources to maintain the accuracy of emissions calculations.
Consistency	• Apply consistent methodologies and data sources across all calculations to ensure comparability over time. • Maintain uniformity in reporting formats and processes.
Transparency	• Provide clear documentation of methodologies, data sources, and assumptions used in emissions calculations. • Ensure that all calculations are traceable and reproducible.
Relevance	• Focus on significant emissions sources to ensure that calculations reflect the actual impact of transportation activities. • Continuously update methodologies to incorporate the latest scientific findings and industry practices.
Completeness	• Include all relevant GHG emissions sources and types in calculations. • Ensure comprehensive coverage of all transportation modes and activities.
Conservativeness	• Adopt a conservative approach in the absence of precise data to avoid underestimating emissions. • Use precautionary assumptions to ensure robust and reliable emissions estimates.

By adhering to these principles, we ensure that, where applicable, our methodologies align with ISO 14083, ensuring that our GHG emissions calculations are accurate, reliable, and transparent. This alignment supports our commitment to environmental sustainability and provides our

clients with the confidence that their emissions data is calculated using the best available practices.

5.5. Aligning our methodologies to ISO14083

To ensure our calculations meet the highest standards of accuracy and transparency, we have taken deliberate actions to align a range of our methodologies with ISO 14083. This alignment enhances the credibility and reliability of our GHG emissions reporting and supports our commitment to environmental sustainability.

Third party limited assurance on Thrust Carbon emission calculations for air, rail, and car has been conducted by LRQA in accordance with ISO 14083.



6. Carbon emission methodologies overview

Thrust Carbon builds upon multiple base methodologies, and will apply the most appropriate methodology given the data provided.

Below, fuel, distance and spend-based are defined in line with the GHG Protocol Scope 3 guidance.²

- **Fuel-based method**, which involves determining the amount of fuel consumed during business travel (i.e., scope 1 and scope 2 emissions of transport providers) and applying the appropriate emission factor for that fuel
- **Distance-based method**, which involves determining the distance and mode of business trips, then applying the appropriate emission factor for the mode used
- **Spend-based method**, which involves determining the amount of money spent on each mode of business travel transport and applying secondary (EEIO) emission factors.

6.1.1. Well-to-tank emissions (WTT)

Many businesses calculate their well-to-tank emissions separately from their general carbon emissions. Thrust Carbon therefore enables well-to-tank emissions to be customised on an account-by-account basis, and a request-by-request basis.

Since Thrust Carbon historically did not automatically provide well-to-tank data, the following defaults are applied:

- Well-to-tank default ON
 - Applied to all accounts that registered with Thrust Carbon post-December 1st 2023.
- Well-to-tank default OFF
 - Applied to all accounts that registered with Thrust Carbon pre-December 1st 2023.

² https://ghgprotocol.org/sites/default/files/2023-03/Scope3_Calculation_Guidance_0%5B1%5D.pdf

Thrust Carbon supports two well-to-tank methodologies:

WTT Methodology	Travel modes supported	Description
Country-by-country methodology	Air ONLY	Using data-tables from <i>Understanding variability in petroleum jet fuel life cycle greenhouse gas emissions to inform aviation decarbonization in Nature Communications</i> This is the default applied methodology for air.
The UK Government DEFRA methodology	Air, Rail, Car, Taxi, Coach, Ferry	This is applied if the DEFRA or DEFRA+ methodology is specifically requested, or this is used if the well-to-tank methodology is requested as DEFRA. This methodology will be inaccurate for any calculations that do not originate in the UK.

ISO 14083 amendment:

It is a requirement of the ISO 14083 standard to account for the whole lifecycle of emissions in Scope 3, Category 6. Therefore, well-to-tank (WTT) is applied as default when ISO 14083 methodologies are selected. The default WTT application is as follows:

- Air - country-by-country methodology
- All other travel modes - DEFRA

6.2. Air travel

The below methodologies are available for calculating carbon emissions from air travel.

Methodology Type	Methodology / Emission Factor Source	Input Data	Supplier-specific data	ISO 14083 available	Calculator	API
Fuel-based	Actual fuel consumption	Fuel quantity	✓	✓	✓	✓
	ICAO+	Flight number	✓	✓	✓	✓
	Google TIM	Flight number	✓	<i>In Progress</i>	<i>On request</i>	✓
	IATA	Flight number	✓	✓	<i>On request</i>	✓
	ICAO	Flight number	✓		<i>On request</i>	✓
Distance-based	DEFRA+ Distance	Origin and Destination, Airline	✓		✓	✓
	DEFRA Distance	Origin and Destination		✓	✓	✓
	New Zealand	Origin and Destination			✓	✓
	EPA	Origin and Destination				✓
Spend-based	Thrust Carbon Spend Factors	Spend		✓	✓	✓

6.2.1. Modifiers & lookups applied to all flight methodologies

One of the challenges of any carbon calculation is having sufficient input data to maximise a carbon methodology's accuracy. Where gaps exist, we enrich data by conducting lookups to find additional data points in order to use a methodology to its full potential.

6.2.2. Radiative forcing

This is a modifier that accounts for the indirect effects of the release of greenhouse gasses at altitude. For example, the impact of contrails, black soot, the effect of aviation on clouds, etc. It should be noted that DEFRA concluded that there was significant scientific uncertainty regarding the multiplier for radiative forcing, and that it is quite possibly under-calculated^{3,4}.

Thrust Carbon supports customising the radiative forcing value to enable businesses to align to their audit needs. In order to choose a radiative forcing multiplier, clients should follow this logic:

- If you are already using a radiative forcing multiplier in your emissions calculations, you should keep the same multiplier (e.g. you baselined your emissions using a 1.9x multiplier in 2019, you should therefore use the same 1.9x multiplier in 2024).
- If a business has not set a radiative forcing multiplier, Thrust Carbon recommends that clients use the currently recommended DEFRA value (currently 1.7x)

While any radiative forcing multiplier is supported by Thrust Carbon, we typically guide customers to the following presets:

Multiplier	Source	Description
1.9x	Recommended DEFRA radiative forcing multiplier, pre-2023 DEFRA update	This preset is applied to all Thrust Carbon accounts that subscribed before December 1st 2023.
1.7x	Recommended DEFRA radiative forcing multiplier, post-2023 DEFRA update	This preset is applied to all Thrust Carbon accounts that subscribed after December 1st 2023.
1.0x	No radiative forcing multiplier	Not recommended

³ <https://assets.publishing.service.gov.uk/media/5d19c4fc40f0b609cfd97461/non-CO2-effects-report.pdf>

⁴ <https://pubs.rsc.org/en/content/articlehtml/2023/ea/d3ea00091e>

Finally, Thrust Carbon applies the multiplier by taking the non-radiative forcing value, and multiplying by the given multiplier; we do not use pre-computed radiative forcing values. This may seem obvious, but the DEFRA working spreadsheets do not have emissions that are strict 1.7x/1.9x multiples of their non-radiative forcing values. We believe this to be a mistake by DEFRA since this conflicts with their underlying methodology explanation document.

6.2.3. Fare code to class lookups

We understand that often your dataset will not contain the class flown on a flight segment, but you might instead know the fare code. Whenever you provide a fare code, we will attempt to match it to the most appropriate class for that airline.

We are aware that in North America the term 'first' is frequently applied to 'business' during short haul travel, so we convert these tickets into 'business' for consistency across reporting.

6.2.4. Aircraft type lookups from flight numbers

Many clients do not know the aircraft type that they have flown on, but often they have the flight number. To increase calculation accuracy, we will attempt to look up the most likely aircraft type for that flight number.

If the flight occurred in the past, we will know this with a high degree of certainty. If the flight has not happened yet, there is a good chance the aircraft type will change. Therefore, we recommend that you recalculate your emissions after the flight or at the end of your reporting year in order to see data for the most up-to-date aircraft type.

6.2.5. Sustainable aviation fuel (SAF)

Sustainable Aviation Fuel (SAF), is a type of manufactured fuel that does not rely on extracting non-renewable fossil fuels from the ground. Until electric or hydrogen planes become commonplace, it is hoped SAF will enable aviation to continue while meeting climate goals. We are excited for the potential of SAF over the coming two decades.

Efforts are being made across the industry (notably IATA and ICAO) to create methodologies and data sources for SAF usage. The most advanced of these is the ICAO's Global Framework for

Alternative Aviation Fuels⁵ (GFAAF) initiative, which is a database on the adoption of SAF, so that internal and external members of the aviation industry can access key SAF data.

The ICAO has also published lifecycle methodologies so that the fuel carbon emissions of an alternative fuel can be calculated (i.e. so that the carbon of producing and transporting the alternative fuel can be taken into account).

Despite all this progress, we do not believe that SAF should be included in carbon calculations at this time. We hold this opinion for a number of reasons:

- The GFAAF database contains information on SAF deliveries, but it does not provide reliable data on how much is used on a given set of planes. For example, if a truck of SAF is delivered to an airport, will that be used on a single flight, or on 20?
- The feedstock and type of SAF is not always reported, which means carbon calculators cannot accurately account for the lifecycle emissions of the fuel.
- The radiative forcing multiplier has not been adequately addressed by the industry (you can read about radiative forcing above). Even if a perfect SAF was a zero emission fuel replacement, it might still have radiative forcing power equivalent to the original fuel.
 - It is hoped that in future Sustainable Aviation Fuels might have a lower radiative forcing multiplier due to the reduced use of aromatic hydrocarbons compared to regular fuels. However, at this time, this has not been adequately studied.
- In many cases, the premium for SAF is paid for by corporations on behalf of airlines. These corporations then claim the full benefit of the SAF purchase as a reduction against their Scope 3 emissions. It is therefore improper for other businesses to claim a Scope 3 reduction because they fly on a plane that utilises SAF, since this reduction is already accounted for by the purchasing business.

Note: While we do not believe it should be an input for carbon calculations at this time, we do think that businesses should include SAF as a post-calculation reduction if they have purchased SAF. It would therefore be treated in much the same way as an offset or carbon capture initiative, and would lower a businesses Scope 3 emissions.

This is not to say we are not including SAF in our products. In Q1 2025, we will include SAF information for airports and flights so that this can be displayed to our customers and they can use this information to make purchasing decisions based on SAF availability. We also stand ready and excited for developments in Sustainable Aviation Fuel methodologies.

⁵ <https://www.icao.int/environmental-protection/GFAAF/Pages/default.aspx>

6.3. Rail travel

Methodology Type	Methodology / Emission Factor Source	Input Data	Supplier-specific data	ISO 14083 available	Calculator	API
Fuel-based	<i>Not currently supported due to data availability</i>					
Distance-based	Local Rail Factor Methodologies (over 17 different territories with one or more local rail factor)	Distance	✓	✓	✓	✓
	DEFRA Distance	Distance		✓	✓	✓
Spend-based	Thrust Carbon Spend Factors	Spend		✓	✓	✓

6.4. Car travel (rental and mileage)

Methodology Type	Methodology / Emission Factor Source	Input Data	Supplier-specific data	ISO 14083 available	Calculator	API
Fuel-based	DEFRA Fuel-based	Fuel quantity		✓	✓	✓
Distance-based	DEFRA Distance	Distance		✓	✓	✓
	Rental day estimation	Number of days			✓	✓
Spend-based	Thrust Carbon Spend Factors	Spend		✓	✓	✓

6.5. Hotel stays

Methodology Type	Methodology / Emission Factor Source	Input Data	Supplier-specific data	ISO 14083 available	Calculator	API
Fuel-based	HCMI from suppliers	Number of nights	✓	N/A	✓	✓
Averages	Greenview Hotel Footprinting Tool (CHSB)	Number of nights		N/A	✓	✓
Spend-based	Thrust Carbon Spend Factors	Spend		N/A	✓	✓

6.6. Taxi travel

Methodology Type	Methodology / Emission Factor Source	Input Data	Supplier-specific data	ISO 14083 available	Calculator	API
Fuel-based	Not currently support due to data availability					
Distance-based	DEFRA Distance	Distance		✓	✓	✓
Spend-based	Spend	Spend		✓	✓	✓

6.7. Ferry travel

Methodology Type	Methodology / Emission Factor Source	Input Data	Supplier-specific data	ISO 14083 available	Calculator	API
Fuel-based	Not currently support due to data availability					
Distance-based	DEFRA Distance	Distance		✓	✓	✓
	NY Waterways	Journeys			✓	✓

6.8. Coach travel

Methodology Type	Methodology / Emission Factor Source	Input Data	Supplier-specific data	ISO 14083 available	Calculator	API
Fuel-based	Not currently support due to data availability					
Distance-based	DEFRA Distance	Distance		✓	✓	✓
Spend-based	Thrust Carbon Spend Factors	Spend		✓	✓	✓

7. Beyond carbon methodologies overview

Thrust Carbon calculates a number of sustainability metrics beyond carbon to give users a wider insight into the environmental impact of their travel programmes.

7.1. Hotel sustainability index (HSI)

Many travellers would like to be able to directly compare the sustainability of different hotels in the same city. Unfortunately, this is not possible with any conventional tool, due to the city level averaging of the Cornell Hotel Sustainability Benchmark (CHSB), and the limited availability of Hotel Carbon Measurement Initiative (HCMI) reports. Instead, Thrust Carbon has built the Thrust Carbon Hotel Sustainability Index (TC-HSI).

7.1.1. Outputs from the TC-HSI

The Thrust Carbon Hotel Sustainability Index (TC-HSI), provides a score out of 100 for every hotel on the planet. 100 is the best possible score, and 1 is the lowest.

For more information on the scoring methodology, please see the full methodology description.

To gain access to the full Methodology Document, please contact Thrust Carbon