



# **Cornell Hotel Sustainability Benchmarking (CHSB) Index 2026: Carbon, Energy and Water**

## **HOTEL BENCHMARK REPORT**

**Prepared By**



# Overview

We are proud to provide you with this confidential, property-level benchmarking and metrics report with the results of your energy, water, and carbon performance, as part of your company's participation in the [Cornell Hotel Sustainability Benchmarking \(CHSB\)](#) Index.

CHSB is an industry-led global data collection and benchmarking initiative, benchmarking data by market and segment on energy, water and carbon emissions from over 31,000 hotels around the world. The CHSB2026 Index is in its tenth year and presents the results on analyzing 2024 calendar year data.

This report is confidential for internal data intelligence purposes only. In addition, a market-level data set is available free of charge via the Cornell University Center for Hospitality Research and HCMI metrics are globally available at [www.hotelfootprints.org](http://www.hotelfootprints.org). CHSB data is used by governments, corporate customers, travel management companies and numerous other organizations to determine benchmarks and estimates for energy and water usage, and carbon footprints and calculate the carbon footprint of travel, for Scope 3 footprinting and carbon offsetting using the HCMI calculations we perform.

Note that your report may be incomplete, either because of missing data or data that did not pass our strict validity testing. We also have limited segmentation available in some markets, and benchmarking is enabled at a global level based on climate zones and hotel attributes. As CHSB participation increases, our data and analytical outputs will continue to improve each year, and we thank you for your participation and support of the initiative.

For more guidance on how to read this report, please refer to the "How to Read CHSB Hotel Benchmark Report" section on page 12.

Should you have any questions or concerns, feel free to contact us at [support@greenviewportal.com](mailto:support@greenviewportal.com).

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With offices in Singapore and Washington D.C., Greenview is the world's leading provider of sustainability programs, benchmarking, online software and data analytics for the hospitality and tourism industry. We support companies to design, implement, and monitor their ESG program and sustainability platforms to drive profitability, streamline data, keep ahead of trends, and provide effective communications for stakeholders. Our hospitality sector experience includes publicly traded REITs, private equity, the top ten global hotel chains, smaller regional chains, luxury, timeshare, and other organizations outside of hotels in travel and tourism.

## About Cornell Center for Hospitality Research



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The mission of the Center for Hospitality Research (CHR) is to advance hospitality thought leadership by publishing and disseminating impactful and actionable research, including reports, briefs, tools, and case studies that industry leaders can put into practice today; facilitating the exchange of new ideas by bringing students, faculty, and industry professionals together at roundtables, panels, conferences, and other engaging events; and partnering with the other Centers and Institutes in the Cornell Peter and Stephanie Nolan School of Hotel Administration to maximize research, event, and networking collaborations.

# CHSB 2026 HOTEL BENCHMARK REPORT

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## Identifiers/Segmentation Information

<b>PARTICIPANT CODE</b>	Sample_00000	<b>HOTEL NAME</b>	Sample London Hotel
<b>ADDRESS</b>	10, Sample Street, London	<b>BRAND</b>	Brand X
		<b>CODE</b>	SAMPL

  

<b>Country</b>	United Kingdom	<b>Climate Zone 1</b>	Temperate, no dry season, warm summer	<b>Stars</b>	★★★★★
<b>City</b>	London	<b>Climate Zone 2</b>	English Lowlands beech forests	<b>Asset Class</b>	Full Service
<b>Market Area</b>	London, UK	<b>Hotel Type: Group</b>	NonResort	<b>STR Market Segment</b>	Upper Upscale
<b>CHSB Region</b>	Not Applicable	<b>Hotel Type: Sub-Group</b>	All Other Hotel (AOH)	<b>Laundry</b>	Washed Off-site
		<b>Operational Type</b>	Year-Round	<b>Location Type*</b>	Not Applicable

## Property Details

✓ <b>Number of Rooms</b>	249	✓ <b>Floor Area in Square Meters</b>	23,677	✓ <b>HCMI Ratio</b>	83%
✓ <b>Room Tier</b>	Large (Room Count)	✓ <b>Floor Area in Square Feet</b>	254,857	✓ <b>HWMI Ratio</b>	83%
✓ <b>Floor Area Tier</b>	Large (Area)	✓ <b>Total Occupied Rooms</b>	79,670	✓ <b>Occupancy Rate</b>	88%

## Validity Testing

✓ <b>Major Renovation or Not Open All 12 Months</b>	✓ <b>Water Data Completeness</b>
✓ <b>Energy Fences Per OCRM</b>	✓ <b>Water Fences Per OCRM</b>
✓ <b>Energy Fences Per Floor Area (SqM or SqFt)</b>	✓ <b>Water Fences Per Floor Area (SqM or SqFt)</b>
✓ <b>Electricity Data Completeness</b>	✓ <b>Gross Average Room Size</b>
✓ <b>Energy Data Completeness</b>	✓ <b>Net Average Room Size</b>
✓ <b>Number of Sources of Energy</b>	✓ <b>HCMI Ratio</b>
✓ <b>Occupancy Data Completeness</b>	
✓ <b>Occupancy Level Fences</b>	

Refer to page 12 for the description of each validity test.

✓ PASS
✗ FAIL
▲ FAIL-HIGH
▼ FAIL-LOW
? MISSING
■ No Data Submitted
🚩 FLAG

## Legend

<b>Floor Area</b>	Conditioned space floor area of the hotel; if not available, the Gross Floor Area (GFA) provided is used instead.
<b>Market Area</b>	Major city and surrounding towns, such as Greater Metropolitan Area, Metropolitan Statistical Area, National Capital Region.
<b>CHSB Region</b>	Region that is sub-national (e.g. state/province) or trans-national (e.g. major tourist market that crosses national borders).
<b>Climate Zone</b>	(1)Koeppen-Geiger Climate Classification System, (2)Bailey's Ecoregions of the World (for US), WWF Ecoregions (for non-US).
<b>Hotel Type: Group</b>	Type of property (Resort or Non-resort)
<b>Hotel Type: Sub-Group</b>	Type of Resort (Beach Resort, Ski Resort, Integrated Resort, All Inclusive Resort (AIR), All Other Resort (AOR)) or Non-resort (All Suites or Extended Stay Hotel, Airport Hotel, Bed & Breakfast or Inn, Convention or Conference Hotel, All Other Hotel (AOH))
<b>Operational Type</b>	Type of property based on when it is open and operational (Year-Round, Summer Seasonal, or Winter Seasonal)
<b>Stars</b>	Star classification estimated from 1 to 5; half stars are rounded down.
<b>Asset Class</b>	Full Service or Limited Service.
<b>STR Market Segment</b>	Chain scale segment according to STR Global Chain Scales; independents assigned at estimated level.
<b>Laundry</b>	Whether laundry is done onsite or outsourced.
<b>Location Type*</b>	Whether the property is in an Urban, Suburban, Small Metro/Town or Rural/Highway location (for US only).
<b>Room Tier</b>	Tiering classification of room count based Asset Class and Hotel Type - Group. - Full Service Resort: Small (<115 rooms), Medium (115-249 rooms), Large (250-449 rooms), Very Large (>449 rooms) - Full Service Non-resort: Small (<120 rooms), Medium (120-219 rooms), Large (220-379 rooms), Very Large (>379 rooms) - Limited Service: Small (<78 rooms), Medium (78-104 rooms), Large (105-164 rooms), Very Large (>164 rooms)
<b>Floor Area Tier</b>	Tiering classification of conditioned space floor area based Asset Class and Hotel Type - Group. - Full Service Resort: Small (<11,500 sqm), Medium (11,500-28,000 sqm), Large (28,000-55,000 sqm), Very Large (>55,000 sqm) - Full Service Non-resort: Small (<6,300 sqm), Medium (6,300-18,000 sqm), Large (18,000-45,000 sqm), Very Large (>45,000 sqm) - Limited Service: Small (<3,800 sqm), Medium (3,800-5,700 sqm), Large (5,700-9,500 sqm), Very Large (>9,500 sqm)
<b>HCMI Ratio</b>	Percentage of total floor area apportioned to Guestrooms per Hotel Carbon Measurement Initiative (HCMI).
<b>HWMI Ratio</b>	Percentage of total floor area apportioned to Guestrooms per Hotel Water Measurement Initiative (HWMI).
<b>Fences</b>	Lower and upper limit boundaries used in Validity Testing, determined based on previous CHSB data set.
<b>OCRM/Floor Area</b>	Validity Testing is based on intensity per OCRM (occupied room) or pro-rated conditioned floor area (SqM or SqFt).







# WATER (L)

Total Water (Cubic Meters) 23,368

Hotels in the same comp set grouping share the same laundry status as your hotel

- ✓ 291.10
- ✓ 985.18
- ✓ 91.53
- ✓ 244.71
- ✓ 0.67

**Water Usage Per OCRM**  
**Water Usage Per SqM**  
**Water Usage per SqFt**  
**HWMI Rooms Footprint per OCRM**  
**HWMI Meetings Footprint Per hour Per SqM**

	COMP SET GROUPING		INTENSITY METRIC	COMP SET SIZE	DECILE TIER	
Market Area	Asset Class + Hotel Type + Stars + Room Tier	OCRMS	17	3rd decile		
			Floor Area	19	4th decile	
	Asset Class + Hotel Type + Stars + Floor Area Tier	OCRMS	18	4th decile		
			Floor Area	18	6th decile	
	Asset Class + Hotel Type + Stars	OCRMS	43	4th decile		
			Floor Area	50	4th decile	
	Asset Class + Hotel Type	OCRMS	57	4th decile		
			Floor Area	80	4th decile	
	Asset Class	OCRMS	57	4th decile		
			Floor Area	81	4th decile	
Market Area Only	OCRMS	84	5th decile			
		Floor Area	131	3rd decile		

	COMP SET GROUPING		INTENSITY METRIC	COMP SET SIZE	DECILE TIER	
Country	Asset Class + Hotel Type + Stars + Room Tier	OCRMS	30	4th decile		
			Floor Area	39	4th decile	
	Asset Class + Hotel Type + Stars + Floor Area Tier	OCRMS	29	4th decile		
			Floor Area	31	6th decile	
	Asset Class + Hotel Type + Stars	OCRMS	87	5th decile		
			Floor Area	123	4th decile	
	Asset Class + Hotel Type	OCRMS	108	4th decile		
			Floor Area	219	4th decile	
	Asset Class	OCRMS	108	4th decile		
			Floor Area	221	4th decile	
Country Only	OCRMS	198	7th decile			
		Floor Area	388	3rd decile		









# HCMI (kgCO<sub>2</sub>e)

HCMI Carbon Footprint (KgCO<sub>2</sub>e) **246,756**

Hotels in the same comp set grouping share the same laundry status as your hotel

✓
2.62
**HCMI Rooms Footprint Per OCRM**

	COMP SET GROUPING		INTENSITY METRIC	COMP SET SIZE	DECILE TIER	
<b>Market Area</b>	Asset Class + Hotel Type + Stars + Room Tier		OCRMS	13	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Asset Class + Hotel Type + Stars + Floor Area Tier		OCRMS	12	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Asset Class + Hotel Type + Stars		OCRMS	31	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Asset Class + Hotel Type		OCRMS	41	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Asset Class		OCRMS	42	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Market Area Only		OCRMS	62	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>

	COMP SET GROUPING		INTENSITY METRIC	COMP SET SIZE	DECILE TIER	
<b>Country</b>	Asset Class + Hotel Type + Stars + Room Tier		OCRMS	24	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Asset Class + Hotel Type + Stars + Floor Area Tier		OCRMS	22	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Asset Class + Hotel Type + Stars		OCRMS	65	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Asset Class + Hotel Type		OCRMS	80	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Asset Class		OCRMS	85	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>
	Country Only		OCRMS	146	Top decile	<div style="width: 100%; height: 10px; background-color: black;"></div>



# HCMI (kgCO<sub>2</sub>e)

HCMI Carbon Footprint (KgCO<sub>2</sub>e) **246,756**

Hotels in the same comp set grouping share the same laundry status as your hotel

	COMP SET GROUPING		INTENSITY METRIC	COMP SET SIZE	DECILE TIER	
Climate Zone 1	Asset Class + Hotel Type + Stars + Room Tier		OCRMS	66	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Asset Class + Hotel Type + Stars + Floor Area Tier		OCRMS	55	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Asset Class + Hotel Type + Stars		OCRMS	163	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Asset Class + Hotel Type		OCRMS	233	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Asset Class		OCRMS	247	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Climate Zone 1 Only		OCRMS	428	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>

	COMP SET GROUPING		INTENSITY METRIC	COMP SET SIZE	DECILE TIER	
Climate Zone 2	Asset Class + Hotel Type + Stars + Room Tier		OCRMS	15	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Asset Class + Hotel Type + Stars + Floor Area Tier		OCRMS	15	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Asset Class + Hotel Type + Stars		OCRMS	39	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Asset Class + Hotel Type		OCRMS	50	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Asset Class		OCRMS	54	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>
	Climate Zone 2 Only		OCRMS	79	Top decile	<div style="width: 100%; height: 10px; background-color: #002060;"></div>

## Legend

<b>HCMI Rooms Footprint</b>	Carbon footprint per OCRM according to the Hotel Carbon Measurement Initiative (HCMI) methodology.
<b>Comp Set Grouping</b>	Benchmark is based on Market Area, Climate Zones or Country. Grouping of properties with matching attributes as below:
<b>Climate Zone</b>	(1) Koeppen-Geiger Climate Classification System, (2) Bailey's Ecoregions of the World (for US), WWF Ecoregions (for non-US).
<b>Asset Class</b>	Full Service or Limited Service.
<b>Hotel Type</b>	Hotel Type - Group: Resort or non-resort property
<b>Stars</b>	Star classification estimated from 1 to 5; half stars are rounded down.
<b>Room Tier</b>	Tiering classification of room count based Asset Class and Hotel Type - Group
<b>Floor Area Tier</b>	Tiering classification of conditioned space floor area based Asset Class and Hotel Type - Group.
<b>Intensity Metric</b>	Benchmark is based on intensity per OCRM (occupied room).
<b>Comp Set Size</b>	Number of properties with matching attributes in the same Comp Set and passed validity testing.
<b>Decile Tier</b>	The Hotel's positioning within Comp Set in deciles (i.e. Comp Set divided into 10 equal parts); Hotels in the 2nd decile performed better than 80% of the Comp Set.
<b>Insufficient Data Set</b>	Insufficient properties within the comp set grouping passed the validity tests to generate a benchmark.
<b>Not Benchmarked</b>	Property did not pass the validity tests required to generate a benchmark.
<b>Comp Sets in bold</b>	Best available benchmarks are in <b>bold</b> . This is the most granular and relevant benchmark for the hotel.

# How to Read CHSB Hotel Benchmark Report

## Step 1

The **Identifiers/Segmentation Information** and **Property Details** sections provides the hotel's details and attributes.

Refer to the **Legend** section for description of attributes.

Identifiers/Segmentation Information			
PARTICIPANT CODE	Refresh Hospitality_REFF0003	HOTEL NAME	Refresh Hotel Paris
ADDRESS	55 rue de la Vierge Paris, Paris 75000	BRAND	Refresh Hotels
		CODE	REFF0003
Country	France	Climate Zone 1	Temperate, no dry season, hot summer
City	Paris	Climate Zone 2	Permanently Humid Eastern Oceanic Broadleaf Forests
Market Area	Paris	Hotel Type: Group	Nonresort
CHSB Region	Not Applicable	Hotel Type: Sub-Group	All Other Hotel (ACH)
		Operational Type	Year-Round
		Stars	★★★★★
		Asset Class	Full Service
		STR Market Segment	Luxury
		Laundry	Off-site
		Location Type*	Urban

Property Details			
Number of Rooms	100	Floor Area in Square Meters	6,932
Room Tier	Small (Room Count)	Floor Area in Square Feet	74,616
Floor Area Tier	Medium (Area)	Total Occupied Rooms	26,684
		HCM Ratio	85%
		HWM Ratio	85%
		Occupancy Rate	85%

Validity Testing	
✓ Major Renovation or Not Open All 12 Months	✓ Water Data Completeness
✓ Energy Fences Per OCRM	✓ Water Fences Per OCRM
✓ Energy Fences Per Floor Area (SqM or SqFt)	✓ Water Fences Per Floor Area (SqM or SqFt)
✓ Electricity Data Completeness	✓ Ratio of Average Number of Rooms to Gross Floor Area
✓ Energy Data Completeness	✓ Ratio of Average Number of Rooms to Net Floor Area
✓ Number of Sources of Energy	✓ HCM Ratio
✓ Occupancy Data Completeness	✗ Overall Variance Test
✓ Occupancy Level Fences	
✓ PASS	✗ FAIL
▲ FAIL-HIGH	▼ FAIL-LOW
? MISSING	■ No Data Submitted
	■ FLAG

## Step 2

The **Validity Testing** section shows whether potential errors and missing data was identified from the data submitted.

## Legend

<b>Major Renovation or Not Open All 12 Months</b>	This test checks if a property underwent significant renovation or closed all or significant part of floor area for a portion of the year. Only properties that are open for all 12 months or seasonal properties are benchmarked.	Affects all benchmarks
<b>Energy Fences Per OCRM</b>	This test checks if a property's energy usage per occupied room is either higher or lower than the upper or lower threshold. The thresholds are determined based on CHSB data from the prior year.	Affects energy, carbon, and HCM Ratio per OCRM benchmarks
<b>Energy Fences Per Floor Area (SqM or SqFt)</b>	This test checks if a property's energy usage per occupied room is either higher or lower than the upper or lower threshold. The thresholds are determined based on CHSB data from the prior year.	Affects energy per unit floor area benchmarks
<b>Electricity Data Completeness</b>	This test checks if electricity data is reported for the full 12 months. NO DATA if there is no electricity data, MISSING if there is less than 12 months of electricity data.	Affects all energy, carbon, and HCM Ratio benchmarks
<b>Energy Data Completeness</b>	This test checks if 12 months of data for all energy types is submitted. NO DATA if no energy data is submitted, MISSING if there are energy types with <12 months of data. Zeros are not considered missing.	Does not affect benchmark
<b>Number of Sources of Energy</b>	This test checks the number of energy sources that the hotel has submitted data for. PASS if there are 2 to 5 energy sources and flagged if otherwise.	Does not affect benchmark
<b>Occupancy Data Completeness</b>	This test checks if data is reported for the full 12 months. NO DATA if there is no occupied rooms data submitted, MISSING if there is at least 1 month of missing occupied rooms data.	Affects per OCRM benchmarks
<b>Occupancy Level Fences</b>	This test checks if a property's occupancy rate is too high or too low.	Affects per OCRM benchmarks
<b>Water Data Completeness</b>	This test checks if data is reported for the full 12 months. NO DATA if there is no water data submitted, MISSING if there are water types with less than 12 months of data.	Affects all water benchmarks
<b>Water Fences Per OCRM</b>	This test checks if a property's water usage per occupied room is either higher or lower than the upper or lower threshold. The thresholds are determined based on CHSB data from the prior year.	Affects water per OCRM benchmarks
<b>Water Fences Per Floor Area (SqM or SqFt)</b>	This test checks if a property's water usage per occupied room is either higher or lower than the upper or lower threshold. The thresholds are determined based on CHSB data from the prior year.	Affects water per unit floor area benchmarks
<b>Gross Average Room Size</b>	This test checks if a property's gross average room size is too high or too low.	Affects all per unit floor area benchmarks
<b>Net Average Room Size</b>	This test checks if a property's net average room size is too high or too low.	Affects HCM Ratio benchmarks
<b>HCM Ratio</b>	This test checks if the percentage of floor area attributed to guestrooms is too high or too low.	Affects HCM Ratio benchmarks

