



Horwath HTL

Hotel, Tourism and Leisure

**Asia Pacific
Sustainability
Trends 2019**



GREENVIEW



Introduction

Dear Industry Colleagues,

We are very happy to present the third Asia Pacific Survey of Hotel Sustainability Trends.

The participation of over 2,000 hotels and serviced apartments across the region is encouraging. The large data set confirms that the vast majority of hotels in the region are paying attention to sustainability.

Hotels are tracking energy usage, giving environmental training to staff, running basic programs such as linen/towel reuse, and keeping properties efficient with preventive maintenance. Performance in energy and water usage continues to be elusive in comparison across various hotels, but the data quality improves and hotels can see their own performance over time through tracking.

The hotel industry is poised to move into a next phase of sustainability, where the new technology, innovative programs, and solutions needed to solve climate change become more widespread across the region's portfolio and pipeline. Next generation best practices such as renewable energy and water recycling are still nascent in the region, but we see the trend toward them.

Moving into the next phase will require a spreading of awareness and scaling of solutions worldwide. That's why we're proud to support the industry's effort to benchmark best practices in sustainability, with the results of this report contributing to the Green Lodging and Hotel Footprinting Tool, other freely available initiatives for hoteliers to understand how their properties are positioned in sustainability.

We would like to acknowledge and thank the Honorary Advisory Board for the Horwath HTL annual hotel industry surveys and the supporting Country hotel associations for their participation and strong support.

Yours Sincerely,

Eric Ricaurte
Founder & CEO
Greenview

Robert Hecker
Managing Director
Horwath HTL Pacific Asia



Overview

Hotels are embracing sustainability more than ever, as it has proven to be an environmental, social and financial asset.

With the United Nations World Tourism Organization (UNWTO) announcing 2017 as the International Year of Sustainable Tourism for Development, the hospitality industry is becoming more mindful of global issues and reacting to sustainable practices.

The UNWTO has listed five goals to focus on:

- sustainable economic growth
- increased employment and poverty reduction
- resource efficiency, environmental protection and climate change
- cultural values, diversity, and heritage
- mutual understanding, peace and security

In addition, as the number of socially conscious travellers who expect and seek sustainable practices during their hotel stays grows year over year, we expect more hotels to expand their sustainability efforts.

To understand the region's status on implementing green practices, we included sustainability questions in the Horwath HTL Asia Pacific Hotel Industry Surveys, involving 2017 calendar year utility data for energy and water usage.

The 2017 Horwath HTL Asia Pacific Hotel Industry Surveys received data for 2,282 hotels across 13 countries (1,975 full service, 228 limited service and 79 unidentified). With each year, the data set, data quality, and uptake in best practices have improved and are likely to continue to become more robust.

We then calculated the greenhouse gas (carbon) emissions of the hotels using the energy data, producing the metrics according to the same methodology used in the Cornell Hotel Sustainability Benchmarking Index.

<https://greenview.sg/chsb-index/>

Survey Accuracy

The benchmark data presented offers users, by and large, a baseline reference on the operational performance and prevalence of practices among hotels in each category. Great emphasis has been placed on presenting accurate benchmarks, and the following fundamentals are abided in the derivation of results.

Cost and Usage Variance:

Cost and usage metrics vary widely across properties and are determined by several factors as some figures reported from a utility invoices will include large facility components adjacent to, but separate from, the property's actual operations.

Likewise, data may be underreported or allocated disproportionately. We used several levels of validity testing to remove outliers and inaccurate data, however, we must acknowledge that certain outliers may always exist and be valid data under nuanced circumstances.

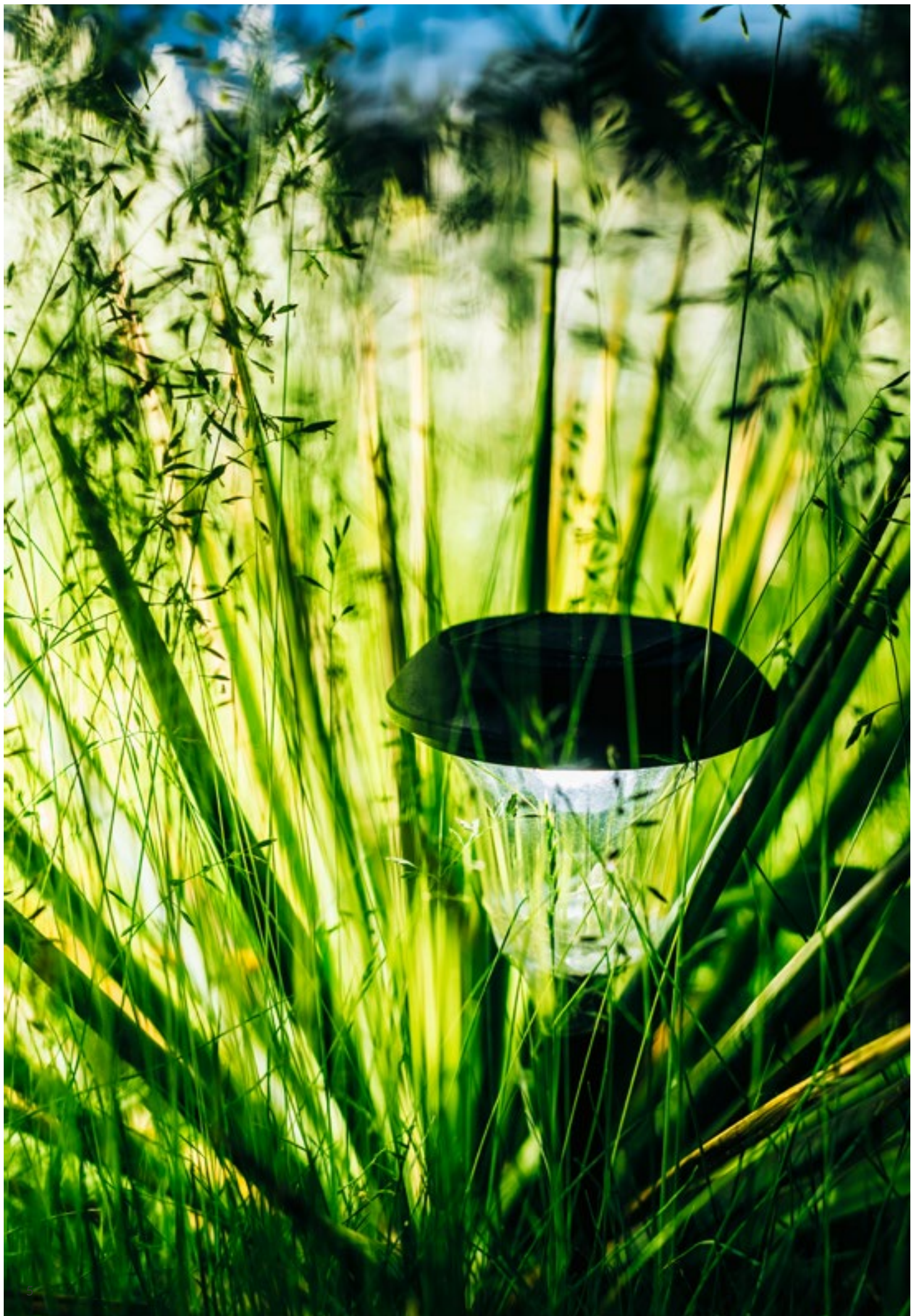
Requisite Sample Size:

Each average benchmark figure will only be presented if the number of respondents is more than ten percent of the total respondents in the respective column group, or \geq five respondents overall. Anything less than ten percent/five respondents will be shown as "Not Available" or "N/A".

Overall Respondents by Country

Country	Full Service	Unlimited Service	Not Specified	Grand Total
Australia	113	24	4	141
China	996	18	29	1,043
Hong Kong			37	37
India	122	47		169
Indonesia	39	4	1	44
Japan	63	29		92
Korea	20	11	3	34
Malaysia	88	8	3	99
Maldives	14			14
Philippines	17	2		19
Singapore	67	8	1	76
Thailand	156	35		191
Total	1,975	228	79	2,282

**Data received from Myanmar, Cambodia, Laos were not included due to lack of minimum sample size*



Key Findings

Trends in Energy Usage

- India, Japan, and the Philippines significantly reduced energy usage per square meter for all hotel types in 2017 compared to 2016.
- Hong Kong gradually reduced energy usage per square meter for all hotel types since 2015 with year over year change of -2.8% in 2016 and -8.18% in 2017.
- Full service hotels in India and the Philippines reduced energy usage per square meter by -19.5% and -38.2%, respectively in 2017 compared to 2016.
- In 2016, full service hotels in Indonesia and Malaysia stayed the same in energy usage per square meter, however, in 2017 these numbers increased to 3.6% and 6.5%, respectively.
- Limited service hotels in Malaysia improved energy usage per square meter with year over year change of -13.7% in 2017 compared to -10.4% in 2016.
- Limited service hotels in Australia, India, Korea, and Thailand also improved energy usage per square meter in 2016 with year over year change of -7.7%, -1.1%, -5.6%, and -22.4%, respectively. However, in 2017 energy usage per square meter for limited service hotels in these Countries have increased to 6.5%, 28.6%, 17.9% and 10.6%, respectively.

Trends in Energy Cost

- China recorded lower energy cost per square meter for all hotel types in 2017 with year over year change of -9.7%.
- Hong Kong, Indonesia and Singapore improved energy cost per square meter for all hotel types with year over year change of -0.6%, -6.2% and -10.2% in 2017, respectively.
- Full service hotels in India reduced energy cost with year over year change of -3.3% in 2017.
- Full service hotels in Indonesia and Singapore continually reduced energy cost per square meter since 2014 with year over year change of -0.9% and -0.5% in 2015 to -19.1% and -37.5% in 2016 and finally, -4.9% and -8.2% in 2017, respectively.
- Limited service hotels in Indonesia reported -8.3% of year over year change of energy cost per square meter in 2017. Limited service hotels in Korea continually reduced energy cost per square meter since 2015 with year over year change of -10.2% in 2016 and -1.3% in 2017.

Trends in Water Usage

- China, Japan and Thailand reduced water usage per occupied room for all hotel types in 2017 compared to 2016. In 2017, China, Japan and Thailand recorded -4.5%, -10.0% and -12.4% year over year change compared to 3.9%, 2.6% and 6.0% in 2016, respectively.
- India and Indonesia posted continuous reduction in water usage per occupied room for all hotel types since 2015 with year over year change of -12.5% and -24.8% in 2016 where else, -1.3% and -12.6% of year over year change in 2017.
- India, Indonesia and Thailand recorded improved water usage per occupied room for full service hotels in 2017 with year over year change of -2.0%, -8.4% and -9.5% respectively in 2017.
- Limited service hotels in Australia, India and Thailand continually reduced water usage per occupied rooms since 2015.
- In 2017, limited service hotels in Australia, India and Thailand recorded -33.6%, -1.0% and -13.4% year over year change of water usage per occupied room.

Trends in Water Cost

- India, Japan and Malaysia significantly reduced water cost per occupied room for all hotel types with year over year change of -35.2%, -62.1% and -36.1% in 2017.
- Thailand reported higher water cost per occupied room for all hotel types in 2015, however this number significantly dropped in 2016 and 2017 with year over year change of -64.8% and -15.3%, respectively
- Singapore reported that water cost per occupied room for all hotel types in 2016 stayed the same. In 2017, water cost per occupied room reduced by 14.6%.
- Full service hotels in India and Japan reported lower water cost per occupied room of -38.1% and -62.1% year over year change in 2017.
- Limited service hotels in Indonesia recorded improved water cost per occupied room in 2017 with year over year change of -17.8%.



Top attributes with 75% Uptake

- **Energy Tracking**

The practice of tracking energy usage is one of the most common practices in the region, with 99% hotels participating. Almost all the participating Countries reported over 99% uptake for this practice. We recognize that hotels which do not track energy consumption are less likely to participate in the survey.

- **Preventive Maintenance Program**

Around 97% of hotels have preventive maintenance program in place and continues to be one of the top sustainable practices implemented in the region.

- **Water Tracking**

An average of 98% of the hotels in the region have this practice in place. A slight increase from last year (95%). Almost all participating Countries recorded over 98% uptake for this practice. Similar to energy tracking, there is a likelihood that the hotels which do not track water usage are less likely to participate in the survey.

- **Towel Reuse Program**

This practice continues to stay at around 87% uptake among the hotels in the region. Countries such as Thailand, Singapore, Philippines, Maldives and Vietnam reported over 90% prevalence for this practice.

- **≥ 75% F&B with Reusable Food Service Ware**

Reusable food service ware generates less solid waste and pollutants, and uses less energy and resources compared to disposable products. This practice recorded an uptake rate of 76% in 2017 compared to 68% uptake in 2016. Highest uptake for this practice is recorded in India at 94% followed by Maldives (93%) and Hong Kong (92%).

- **≥ 75% Low-Flow Toilets**

Low-flow toilets or high efficiency toilets use 4.8 or less litres of water per flush as opposed to regular toilets that use 6.0 or more litres of water. Overall, 77% of hotels have this practice in place. India, Thailand, Philippines, Maldives and China reported more than 80% prevalence for this practice.

- **≥ 75% LED lighting**

Nearly 75% of hotels within the region have their interior space equipped with LED lighting compared to 43% uptake in 2016. Countries such as India, Thailand, Maldives, Singapore and Korea reported more than 80% uptake in this practice.

- **≥ 75% Guestrooms Have Digital Thermostats**

Digital thermostats adjust temperatures based on a series of programmed settings that take effect at different intervals of the day, saving energy usage. Overall, 78% of hotels have installed digital thermostats in over 75% of their guestrooms. Countries such as India, China and Korea have more than 90% uptake in this practice.

- **≥ 75% of Non-Smoking Guestrooms**

More hotels are offering non-smoking rooms and the proportion of hotels that only offer non-smoking rooms has increased over the last decade. Additionally, many hotels have designated spots for smokers. The practice of having over 75% non-smoking guestrooms recorded an uptake rate of 77% within the region. Korea, Maldives and Australia reported more than 90% uptake in this practice.

- **Recycling in Common Areas**

Around 77% of hotels within the region practice recycling in common areas. Hong Kong continues to remain at top of the list with highest uptake rate of 88% for this practice, followed by Thailand and Korea with 86% uptake.

- **Employee Volunteering Opportunities During Work Hours**

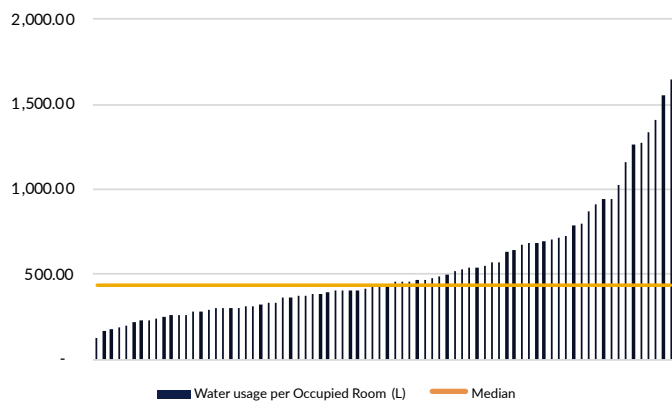
More companies are allowing employees to volunteer their time and services towards various environmental, social and community development activities and campaigns during regular working hours. Overall, 79% of hotels have employee volunteering programs in place. Countries such as India, Thailand, Philippines, Maldives, Vietnam and Korea projected over 90% uptake for this practice.

- **Written Environmental Policy(ies)**

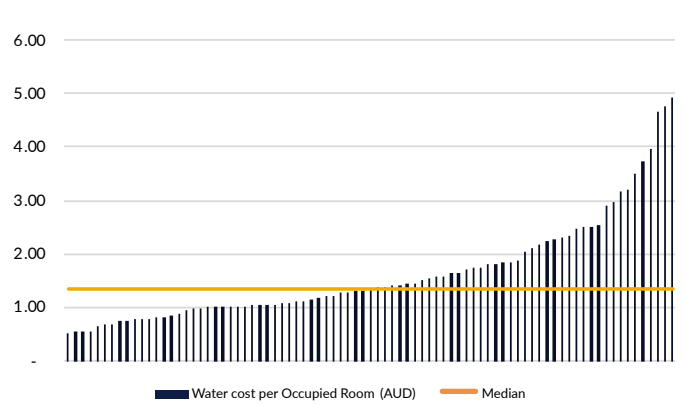
An increasing number of hotels are voluntarily choosing to set up an environmental policy for their hotel. Overall, 79% of hotels have written environmental policy(ies) in place. Countries such as Korea, Philippines and Thailand recorded more than 90% uptake in this practice.



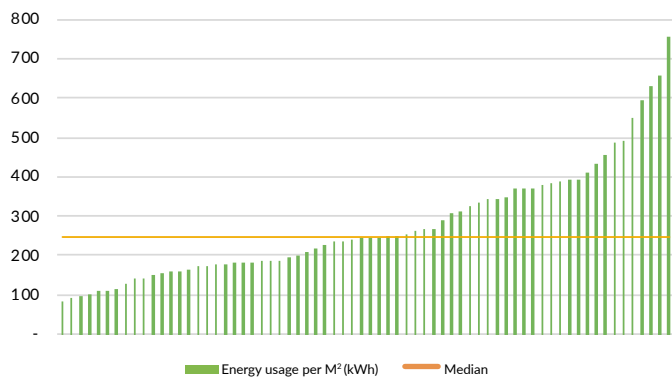
Water Usage Per Occupied Room (L)



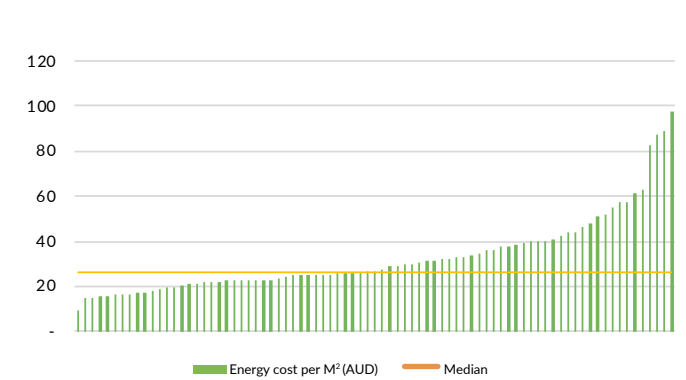
Water Cost Per Occupied Room (AUD)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (AUD)



AUSTRALIA		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	68	91	81	114	60	78	60	83	68	95
	High	755	203	97	20	7,798	1,647	10	5	402	154
	Mean	278	67	33	8	2,375	541	6	2	167	44
	U. Qrtr	369	78	39	10	2,703	684	8	2	213	52
	Median	246	55	27	7	1,777	437	5	1	141	34
	L.Qrtr	176	41	23	5	1,314	310	4	1	118	26
	Low	83	24	10	2	389	126	1	1	20	14
FULL SERVICE	No.	63	81	72	95	57	68	53	72	63	85
	High	755	203	97	20	7,798	1,647	10	5	402	145
	Mean	282	67	33	8	2,360	581	6	2	169	44
	U. Qrtr	369	369	39	10	2,667	695	7	2	213	52
	Median	246	56	27	7	1,774	464	5	1	141	35
	L.Qrtr	177	183	23	5	1,304	354	4	1	118	28
	Low	83	26	10	2	389	201	1	1	45	14
LIMITED SERVICE	No.	5	10	9	19		10	7	11	5	10
	High	384	166	57	20		567	9	3	250	154
	Mean	218	68	32	7		272	6	1	148	48
	U. Qrtr	246	225	39	9		324	8	2	192	49
	Median	179	46	25	5		232	7	1	157	28
	L.Qrtr	177	147	23	3		182	3	1	123	23
	Low	101	24	16	2		126	2	1	20	16
RESORT	No.			5	7		6		6		5
	High			63	12		1,647		2		95
	Mean			37	5		507		1		41
	U. Qrtr			40	5		467		1		36
	Median			30	5		252		1		26
	L.Qrtr			29	4		234		1		25
	Low			25	2		126		1		24
CITY/ URBAN	No.	16	19	16	20	10	9	12	13	16	19
	High	657	178	83	20	7,191	1,274	10	5	402	154
	Mean	266	87	38	13	3,203	822	5	2	169	58
	U. Qrtr	331	389	53	14	3,779	948	8	3	195	63
	Median	217	86	35	12	2,885	794	5	2	142	53
	L.Qrtr	176	185	24	10	2,009	649	3	1	116	36
	Low	111	28	10	5	1,320	408	1	1	75	14
CITY/ URBAN	No.	45	64	56	82	44	60	40	60	45	67
	High	755	203	97	19	7,798	1,550	10	5	398	145
	Mean	289	64	30	7	2,235	514	6	2	170	41
	U. Qrtr	369	369	35	8	2,504	583	7	2	216	46
	Median	249	55	26	7	1,746	423	6	1	141	33
	L.Qrtr	184	176	22	5	1,250	317	4	1	118	25
	Low	94	24	15	2	389	166	1	1	64	14

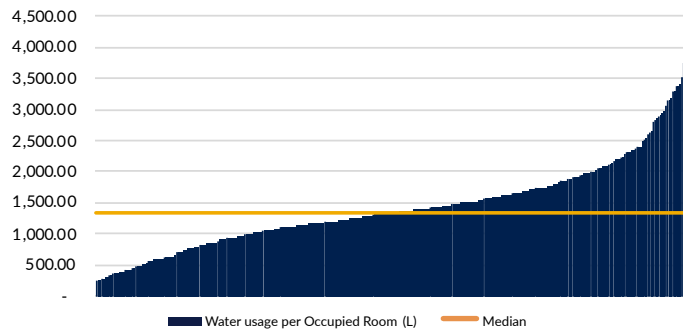
AUSTRALIA: Utilities & Carbon Emission Snapshot

AUSTRALIA	ALL		FULL SERVICE		LIMITED SERVICE		No.
	No.	Yes	No.	Yes	No.	Yes	
Towel Reuse Program?	134	86%	110	88%	24	75%	8
Opt-Out Linen Reuse	109	47%	92	48%	17	41%	5
≥ 75% LED Lighting	131	78%	108	77%	23	83%	8
Variable Frequency Drives	126	65%	105	70%	21	38%	7
Renewable Power Generated?	133	8%	109	7%	24	8%	8
Carbon Offsets/Renewable Energy Cert. Purchase	124	10%	103	11%	21	10%	7
≥ 75% Guestrooms Have Digital Thermostats	125	74%	104	73%	21	76%	7
≥ 75% Guestrooms Have Occupancy Sensors	125	38%	104	37%	21	43%	7
≥ 75% Meeting Rooms Have Digital Thermostats	123	57%	103	61%	20	35%	7
≥ 75% Meeting Rooms Have Occupancy Sensors	123	13%	103	15%	20	5%	7
Energy Sub-metering	131	43%	107	42%	24	46%	8
Energy Tracking	124	98%	103	100%	21	90%	7
Benchmarking Energy among Peers	123	72%	102	77%	21	48%	7
Energy Audit	122	60%	101	60%	21	57%	7
Electric Vehicles	124	18%	103	21%	21	0%	7
Recycling in Common Areas	135	81%	111	81%	24	79%	8
Recycling Bins in Guestrooms	135	15%	111	13%	24	25%	8
≥ 75% Guestrooms with Soap/Shampoo Disp.	135	1%	111	1%	24	0%	8
Waste and Recycling Tracking	135	55%	111	61%	24	25%	8
Soap Donation	135	56%	111	60%	24	38%	8
≥ 75% F&B with Reusable Food Service Ware	133	69%	111	73%	22	50%	8
Food Waste Composting	134	25%	111	29%	23	9%	8
Waste Audit	134	39%	111	43%	23	17%	8
≥ 75% Low-Flow Toilets	131	79%	108	76%	23	91%	8
≥ 75% Efficient Faucets	131	77%	108	82%	23	52%	8
≥ 75% Efficient Showerheads	131	79%	108	78%	23	83%	8
Water Tracking	132	98%	109	99%	23	91%	8
Graywater Reuse	131	6%	108	5%	23	13%	8
Low-flow Pre-Rinse Kitchen Spray Valves	130	55%	108	59%	22	36%	8
Water Sub-Metering	131	34%	109	37%	22	18%	8
Preventive Maintenance program	135	96%	111	97%	24	92%	8
Written Environmental Policy(ies)	135	88%	111	91%	24	75%	8
Green Practices Shared on Website	133	56%	109	56%	24	58%	7
Green Champion	135	79%	111	82%	24	67%	8
Green Team	135	66%	111	64%	24	75%	8
Staff Training	135	65%	111	67%	24	58%	8
Employee Volunteering Opps. During Work Hrs	134	68%	110	68%	24	67%	8
Staff Recognition	134	64%	110	65%	24	63%	8
Comment/Suggestion Process	134	50%	110	53%	24	38%	8
>50% Green Cleaning Products	134	62%	110	62%	24	63%	8
100% non-smoking	133	86%	110	85%	23	87%	8
≥ 75% of non-smoking guestrooms	133	98%	110	98%	23	100%	8
3rd-party Certification	131	34%	108	32%	23	39%	8
Carbon Footprint Measured	132	38%	110	39%	22	32%	8
Local Procurement Policy	131	78%	109	80%	22	68%	8
Green Roof	133	19%	110	22%	23	4%	8
Vegetable Garden	134	10%	110	12%	24	4%	8
Beekeeping	134	10%	110	12%	24	0%	8
Procurement requirements	129	45%	107	46%	22	41%	8

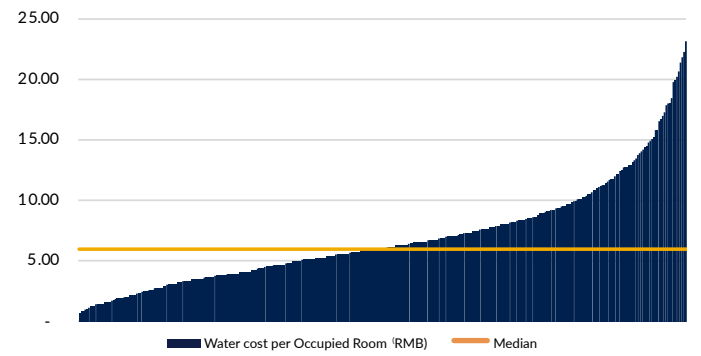
AIRPORT	RESORT		CITY/URBAN		
	Yes	No.	Yes	No.	Yes
	63%	25	88%	93	88%
	80%	20	55%	78	44%
	88%	25	68%	90	82%
	71%	24	42%	88	73%
	13%	24	21%	93	4%
	0%	23	4%	86	13%
	86%	23	57%	87	79%
	29%	23	43%	87	37%
	43%	21	57%	87	60%
	0%	21	5%	87	17%
	25%	23	52%	92	41%
	100%	23	96%	86	99%
	100%	23	57%	85	75%
	57%	22	55%	85	61%
	14%	22	36%	87	15%
	88%	26	65%	93	85%
	0%	26	27%	93	14%
	0%	26	0%	93	1%
	50%	26	38%	93	60%
	25%	26	50%	93	62%
	75%	25	64%	92	74%
	25%	26	12%	92	30%
	38%	26	23%	92	42%
	88%	24	83%	91	78%
	88%	24	79%	91	79%
	88%	24	88%	91	79%
	100%	24	96%	92	98%
	25%	24	17%	91	1%
	75%	24	42%	90	57%
	0%	24	46%	91	34%
	88%	26	96%	93	97%
	88%	26	100%	93	85%
	71%	26	42%	92	58%
	63%	26	88%	93	80%
	25%	26	69%	93	69%
	50%	26	65%	93	68%
	63%	26	81%	92	66%
	88%	26	62%	92	65%
	50%	26	38%	92	53%
	88%	26	50%	92	65%
	100%	25	56%	92	92%
	100%	25	96%	92	99%
	50%	24	25%	91	33%
	38%	25	16%	91	43%
	100%	25	68%	90	81%
	25%	25	16%	92	21%
	38%	26	4%	92	11%
	25%	26	4%	92	11%
	38%	24	46%	89	46%



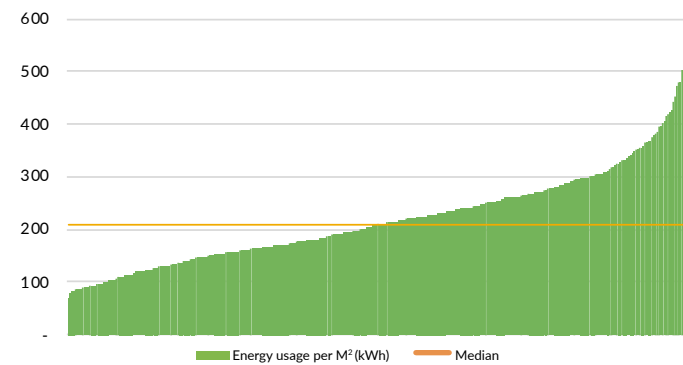
Water Usage Per Occupied Room (L)



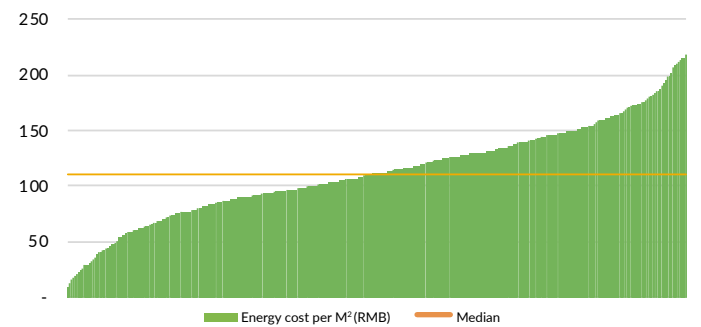
Water Cost Per Occupied Room (RMB)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (RMB)



CHINA		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	736	810	866	901	551	559	837	886	744	802
	High	524	473	219	202	6,925	3,877	37	23	250	189
	Mean	217	143	113	80	2,230	1,409	11	7	97	62
	U. Qtrtr	268	185	141	103	2,664	1,731	13	9	116	76
	Median	208	132	111	76	2,045	1,335	9	6	92	57
	L.Qtrtr	154	81	86	51	1,522	980	6	4	71	39
	Low	70	24	10	13	274	200	1	1	21	11
FULL SERVICE	No.	715	790	836	873	545	552	811	855	723	783
	High	524	473	219	202	6,925	3,877	37	23	250	189
	Mean	219	145	113	81	2,230	1,419	11	7	98	63
	U. Qtrtr	269	270	141	104	2,660	1,736	13	9	117	77
	Median	210	135	112	77	2,039	1,343	9	6	93	59
	L.Qtrtr	156	157	86	53	1,524	993	6	4	72	40
	Low	80	25	10	13	274	200	1	1	21	11
LIMITED SERVICE	No.	8	10	11	12	6	7	9	12	8	9
	High	268	121	117	70	3,565	1,428	17	13	100	49
	Mean	153	53	77	29	2,265	666	9	4	72	25
	U. Qtrtr	191	147	101	36	3,026	698	12	5	78	31
	Median	154	41	79	23	2,311	592	11	3	72	20
	L.Qtrtr	101	83	54	19	1,543	445	5	2	66	15
	Low	70	24	28	16	851	353	2	1	46	14
AIRPORT	No.	12	14	14	15	9	10	13	14	13	14
	High	268	196	215	165	5,567	1,520	29	20	250	72
	Mean	168	83	130	65	2,182	750	12	6	94	36
	U. Qtrtr	192	172	174	86	2,514	1,069	16	7	98	42
	Median	170	77	124	54	1,707	676	12	4	86	33
	L.Qtrtr	130	114	108	35	1,378	375	8	3	57	26
	Low	88	26	28	19	882	249	1	1	35	16
RESORT	No.	103	126	151	147	91	80	133	139	105	123
	High	500	473	209	202	6,925	3,877	37	23	243	184
	Mean	201	179	97	98	2,584	1,857	10	8	92	80
	U. Qtrtr	237	318	125	125	3,326	2,432	13	12	111	102
	Median	189	170	97	93	2,187	1,632	8	7	79	70
	L.Qtrtr	143	177	72	73	1,431	1,137	5	5	68	52
	Low	81	27	16	13	418	358	1	1	36	18
CITY/ URBAN	No.	500	532	563	590	367	382	562	593	504	527
	High	524	463	219	199	6,918	3,362	35	22	232	189
	Mean	225	137	117	75	2,204	1,329	11	6	100	59
	U. Qtrtr	279	262	146	97	2,652	1,671	14	8	120	72
	Median	215	126	116	72	2,068	1,290	9	6	95	56
	L.Qtrtr	157	148	90	47	1,570	936	7	4	73	37
	Low	70	24	10	13	274	200	1	1	27	11
CONVENTION/ CONFERENCE CENTER	No.	121	138	137	148	84	87	128	139	122	138
	High	381	460	215	183	3,976	3,188	36	20	236	171
	Mean	201	138	111	80	1,965	1,424	10	7	92	59
	U. Qtrtr	252	261	135	100	2,375	1,692	12	9	107	73
	Median	197	129	109	79	1,957	1,329	9	7	86	57
	L.Qtrtr	146	166	87	61	1,441	1,038	7	5	68	41
	Low	81	28	12	13	374	253	2	1	21	12

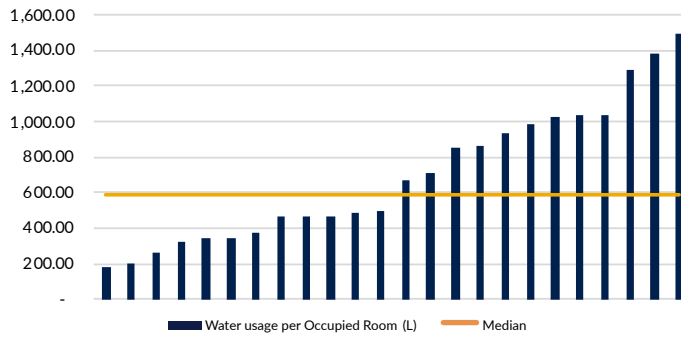
CHINA: Utilities & Carbon Emission Snapshot

CHINA	ALL		FULL SERVICE		LIMITED SERVICE		No.
	No.	Yes	No.	Yes	No.	Yes	
Towel Reuse Program?	955	86%	919	87%	15	73%	16
Opt-Out Linen Reuse	722	56%	702	57%	9	22%	12
≥ 75% LED Lighting	1043	74%	996	75%	18	67%	19
Variable Frequency Drives	1017	77%	975	79%	16	44%	18
Renewable Power Generated?	1017	9%	977	10%	16	0%	18
Carbon Offsets or Renewable Energy Certificate Purchase	997	4%	957	4%	16	6%	18
≥ 75% Guestrooms Have Digital Thermostats	875	90%	853	91%	9	78%	18
≥ 75% Guestrooms Have Occupancy Sensors	712	86%	690	87%	11	82%	12
≥ 75% Meeting Rooms Have Digital Thermostats	831	90%	808	90%	9	78%	17
≥ 75% Meeting Rooms Have Occupancy Sensors	571	79%	556	80%	6	67%	8
Energy Sub-metering	1011	79%	972	80%	15	60%	17
Energy Tracking	1005	100%	967	100%	16	100%	18
Benchmarking Energy among Peers	997	75%	958	76%	16	63%	18
Electric Vehicles	998	35%	961	36%	15	13%	18
Recycling in Common Areas	983	78%	945	78%	15	73%	18
Recycling Bins in Guestrooms	972	64%	934	65%	15	53%	18
≥ 75% Guestrooms with Bulk Soap/Shampoo Disp.	1043	45%	996	45%	18	39%	19
Waste and Recycling Tracking	937	49%	904	49%	13	23%	18
Soap Donation	947	16%	912	17%	13	0%	18
≥ 75% F&B with Reusable Food Service Ware	809	88%	787	89%	6	67%	14
Food Waste Composting	931	35%	896	36%	13	15%	18
Waste Audit	940	10%	906	10%	13	0%	18
≥ 75% Low-Flow Toilets	949	85%	917	86%	15	80%	17
≥ 75% Efficient Faucets	767	70%	741	71%	12	50%	13
≥ 75% Efficient Showerheads	805	78%	776	79%	14	64%	14
Water Tracking	999	100%	959	100%	16	88%	18
Graywater Reuse	997	21%	957	22%	16	19%	18
Low-flow Pre-Rinse Kitchen Spray Valves	987	35%	949	35%	15	20%	18
Water Sub-Metering	1002	78%	962	79%	16	56%	18
Preventive Maintenance program	997	98%	958	98%	16	88%	18
Written Environmental Policy(ies)	968	68%	930	69%	16	38%	18
Green Practices Shared on Website	952	44%	915	44%	16	31%	17
Green Champion	973	48%	935	49%	16	31%	18
Green Team	967	63%	929	64%	16	25%	18
Staff Training	968	77%	930	77%	16	63%	18
Employee Volunteering Opportunities During Work Hours	957	50%	919	51%	16	38%	18
Staff Recognition	955	66%	918	67%	16	56%	18
Comment/Suggestion Process	956	40%	919	40%	16	38%	18
>50% Green Cleaning Products	942	89%	906	89%	14	86%	18
100% non-smoking	969	85%	932	86%	15	73%	18
≥ 75% of non-smoking guestrooms	951	45%	915	45%	14	14%	18
3rd-party Certification	922	30%	887	31%	14	14%	18
Carbon Footprint Measured	954	44%	919	45%	14	36%	18
Local Procurement Policy	949	91%	914	91%	15	73%	18
Green Roof	976	27%	939	27%	15	27%	18
Vegetable Garden	973	5%	938	5%	15	0%	18
Beekeeping	962	3%	926	3%	15	0%	18
Procurement requirements	916	59%	882	60%	15	27%	18

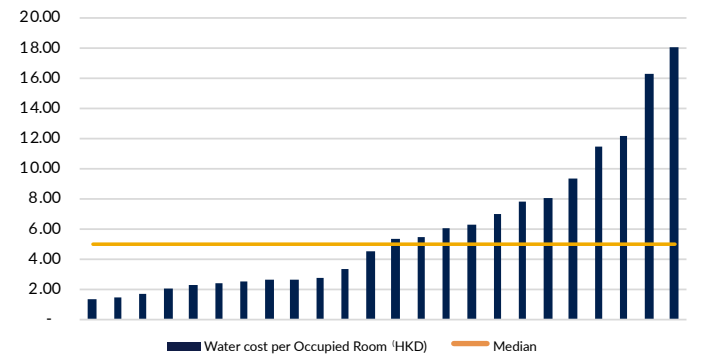
AIRPORT	RESORT		CITY/URBAN		CONV/CONF CENT.		
	Yes	No.	Yes	No.	Yes	No.	Yes
	81%	170	86%	616	87%	151	85%
	75%	134	60%	470	55%	105	55%
	84%	189	74%	667	75%	163	75%
	72%	184	80%	651	76%	162	80%
	6%	184	17%	652	8%	161	5%
	0%	176	7%	641	4%	160	3%
	83%	150	91%	571	90%	135	90%
	83%	126	90%	459	84%	113	88%
	100%	140	93%	540	89%	133	86%
	88%	106	80%	362	77%	93	82%
	59%	182	77%	650	79%	160	84%
	100%	178	99%	646	100%	161	100%
	83%	176	74%	643	76%	158	75%
	50%	177	47%	642	30%	159	42%
	83%	175	78%	634	79%	154	74%
	72%	172	65%	629	66%	151	58%
	42%	189	44%	667	45%	163	45%
	67%	167	47%	603	48%	147	53%
	39%	169	18%	610	15%	149	17%
	86%	149	88%	514	88%	131	92%
	33%	167	38%	600	35%	145	34%
	22%	167	11%	605	10%	149	7%
	88%	165	85%	612	85%	153	83%
	69%	135	73%	500	71%	117	62%
	86%	138	81%	519	78%	133	75%
	100%	175	99%	644	100%	160	100%
	22%	175	32%	643	19%	160	21%
	33%	172	35%	637	34%	158	35%
	56%	176	78%	647	78%	160	79%
	100%	176	97%	645	98%	156	99%
	72%	167	65%	630	69%	151	68%
	41%	167	43%	618	44%	148	47%
	67%	169	49%	631	48%	153	47%
	67%	167	63%	628	63%	152	61%
	83%	170	74%	628	77%	150	78%
	50%	168	54%	619	48%	150	53%
	67%	167	68%	617	64%	151	70%
	28%	165	37%	622	40%	149	42%
	100%	165	87%	610	89%	147	88%
	94%	170	87%	631	85%	148	82%
	56%	160	44%	621	44%	150	46%
	44%	160	32%	601	30%	141	28%
	50%	171	37%	617	46%	146	42%
	94%	167	89%	616	91%	146	90%
	22%	171	27%	632	26%	153	30%
	6%	172	10%	629	4%	152	3%
	0%	168	4%	624	3%	150	2%
	61%	160	68%	601	57%	136	57%



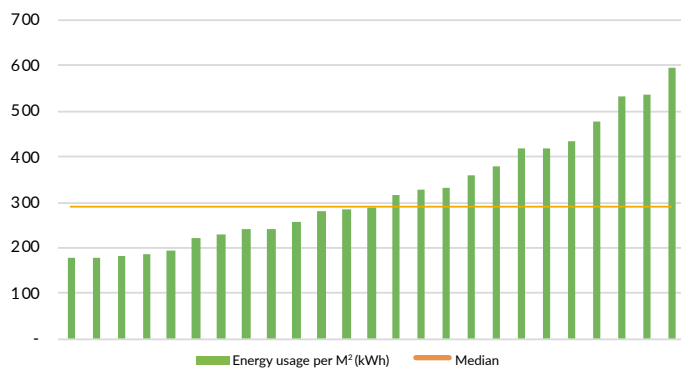
Water Usage Per Occupied Room (L)



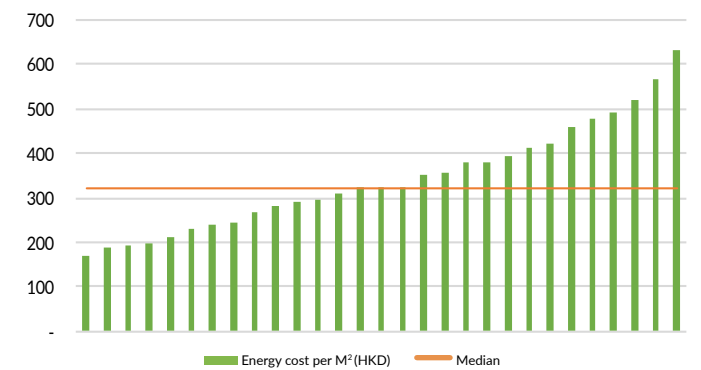
Water Cost Per Occupied Room (HKD)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (HKD)



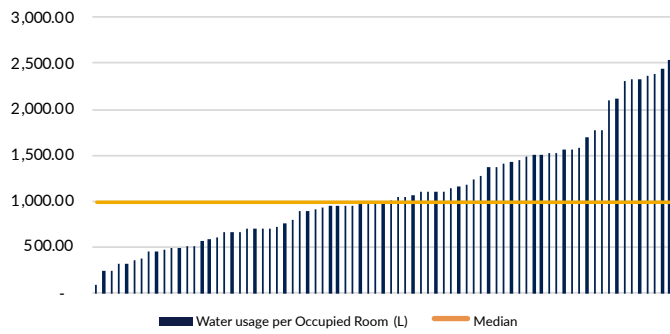
HONG KONG		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	25	21	29	25	24	24	24	24	25	21
	High	594	134	631	138	4,519	1,492	49	18	333	93
	Mean	323	65	342	67	2,869	696	23	6	211	43
	U. Qtr	417	93	412	91	3,466	998	27	8	259	63
	Median	290	58	322	59	2,967	587	19	5	197	39
	L.Qtr	231	39	244	44	2,209	367	15	2	164	27
	Low	178	21	170	23	1,307	182	9	1	117	15
CITY/ URBAN	No.	22	18	26	22	21	21	22	22	22	18
	High	594	134	631	138	4,519	1,492	49	18	333	93
	Mean	325	64	343	65	2,864	686	23	6	209	41
	U. Qtr	410	419	408	90	3,461	990	30	8	255	60
	Median	303	51	322	55	2,955	674	19	5	201	33
	L.Qtr	225	225	242	43	2,236	346	15	2	156	26
	Low	178	21	170	23	1,307	182	9	1	117	15

HONG KONG: Utilities & Carbon Emission Snapshot

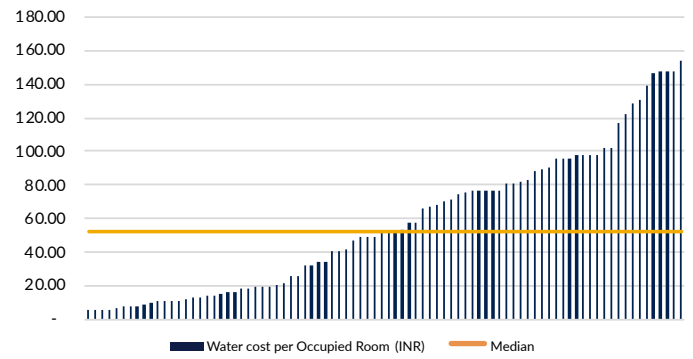
HONG KONG	ALL		CITY/URBAN	
	No.	Yes	No.	Yes
Towel Reuse Program?	34	88%	30	90%
Opt-Out Linen Reuse	27	59%	25	60%
≥ 75% LED Lighting	33	39%	29	34%
Variable Frequency Drives	33	61%	29	59%
Renewable Power Generated?	33	15%	29	17%
Carbon Offsets or Renewable Energy Certificate Purchase	33	0%	29	0%
≥ 75% Guestrooms Have Digital Thermostats	29	76%	26	73%
≥ 75% Guestrooms Have Occupancy Sensors	13	77%	13	77%
≥ 75% Meeting Rooms Have Digital Thermostats	23	74%	19	79%
≥ 75% Meeting Rooms Have Occupancy Sensors	32	59%	28	57%
Energy Sub-metering	33	100%	29	100%
Energy Tracking	33	58%	29	55%
Benchmarking Energy among Peers	33	45%	29	45%
Electric Vehicles	33	45%	29	41%
Recycling in Common Areas	32	88%	28	86%
Recycling Bins in Guestrooms	33	36%	29	34%
≥ 75% Guestrooms with Bulk Soap/Shampoo Disp.	12	42%	12	42%
Waste and Recycling Tracking	30	53%	26	50%
Soap Donation	33	55%	29	52%
≥ 75% F&B with Reusable Food Service Ware	24	92%	20	95%
Food Waste Composting	32	25%	28	21%
Waste Audit	30	0%	27	0%
≥ 75% Low-Flow Toilets	22	68%	20	65%
≥ 75% Efficient Faucets	19	63%	17	59%
≥ 75% Efficient Showerheads	19	74%	17	71%
Water Tracking	33	100%	29	100%
Graywater Reuse	33	6%	29	7%
Low-flow Pre-Rinse Kitchen Spray Valves	33	36%	29	38%
Water Sub-Metering	33	85%	29	83%
Preventive Maintenance program	32	97%	28	96%
Written Environmental Policy(ies)	31	81%	27	78%
Green Practices Shared on Website	30	57%	26	58%
Green Champion	31	68%	27	70%
Green Team	31	94%	27	93%
Staff Training	31	68%	27	70%
Employee Volunteering Opportunities During Work Hours	30	67%	26	62%
Staff Recognition	31	45%	27	44%
Comment/Suggestion Process	31	45%	27	48%
>50% Green Cleaning Products	27	67%	24	67%
100% non-smoking	32	66%	28	64%
≥ 75% of non-smoking guestrooms	30	80%	26	77%
3rd-party Certification	29	34%	25	32%
Carbon Footprint Measured	31	58%	27	56%
Local Procurement Policy	30	70%	26	69%
Green Roof	32	22%	28	25%
Vegetable Garden	32	6%	28	7%
Beekeeping	32	0%	28	0%
Procurement requirements	29	48%	26	50%



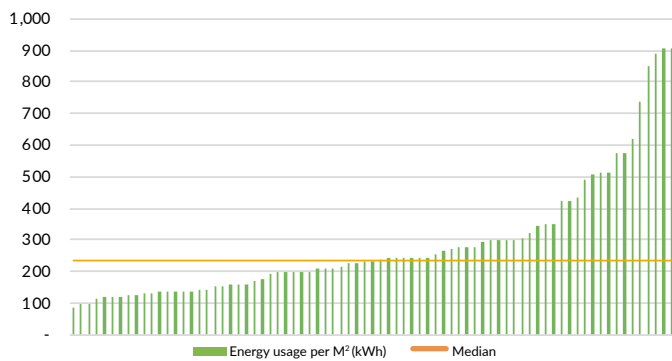
Water Usage Per Occupied Room (L)



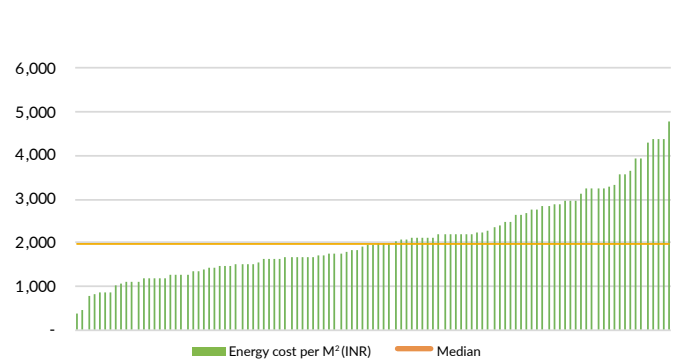
Water Cost Per Occupied Room (INR)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (INR)



INDIA		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	77	80	109	128	73	77	91	86	71	82
	High	908	158	4,768	2,029	4,532	2,537	379	154	274	108
	Mean	288	88	2,099	902	2,160	1,110	122	57	150	58
	U. Qrtr	308	116	2,636	1,127	2,983	1,476	190	87	184	74
	Median	234	89	1,970	864	2,032	989	94	52	145	55
	L.Qrtr	156	63	1,490	556	1,177	667	32	17	103	39
	Low	85	27	360	250	206	93	12	6	44	6
FULL SERVICE	No.	64	66	94	111	63	69	85	78	58	68
	High	908	158	4,768	2,029	4,532	2,537	379	154	274	108
	Mean	286	89	2,068	939	2,092	1,150	116	55	142	58
	U. Qrtr	300	350	2,636	1,179	2,770	1,508	171	81	180	76
	Median	230	84	1,819	895	2,001	1,038	85	49	131	55
	L.Qrtr	142	149	1,490	612	1,340	706	32	16	101	37
	Low	99	27	360	250	206	327	12	6	44	6
LIMITED SERVICE	No.	13	14	15	17	10	8	6	8	13	14
	High	511	110	3,567	943	4,219	1,520	370	146	255	72
	Mean	294	85	2,291	660	2,588	765	214	83	183	55
	U. Qrtr	421	275	2,862	886	3,921	1,082	321	105	240	62
	Median	242	90	2,212	682	3,488	820	231	90	181	57
	L.Qrtr	209	220	1,963	476	729	244	122	55	145	55
	Low	85	39	777	353	574	93	17	8	63	29
AIRPORT	No.	5	5	9	9					5	5
	High	511	138	2,342	1,282					255	73
	Mean	327	107	1,816	797					180	61
	U. Qrtr	511	300	2,212	905					255	62
	Median	209	110	2,099	891					145	62
	L.Qrtr	209	243	1,254	523					145	55
	Low	193	89	1,194	476					102	55
RESORT	No.	6		13	10	11	9	12	10	6	5
	High	437		4,367	1,864	3,759	2,437	216	98	243	102
	Mean	282		2,031	1,132	1,983	1,392	78	48	172	83
	U. Qrtr	305		2,622	1,516	3,045	1,701	119	75	188	95
	Median	266		1,756	1,137	1,764	1,508	37	49	155	90
	L.Qrtr	222		1,658	748	915	915	31	14	146	78
	Low	200		458	427	274	449	12	6	138	48
CITY/ URBAN	No.	56	60	71	90	50	52	67	66	50	61
	High	908	158	4,768	2,029	4,532	2,375	379	154	274	108
	Mean	287	87	2,196	899	2,311	1,080	119	54	144	57
	U. Qrtr	329	298	2,865	1,120	3,509	1,414	175	82	185	75
	Median	235	83	2,097	876	2,122	1,014	85	48	130	55
	L.Qrtr	135	142	1,510	550	1,353	664	28	16	99	38
	Low	85	27	360	250	206	93	13	6	44	6

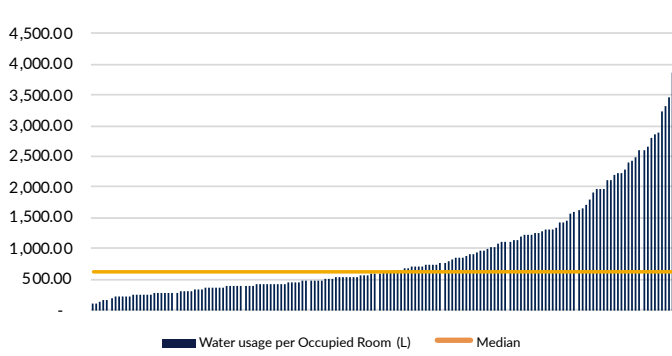
INDIA: Utilities & Carbon Emission Snapshot

INDIA	ALL		FULL SERVICE		LIMITED SERVICE		No.
	No.	Yes	No.	Yes	No.	Yes	
Towel Reuse Program?	132	89%	116	90%	16	88%	9
Opt-Out Linen Reuse	119	61%	105	64%	14	36%	9
≥ 75% LED Lighting	135	87%	119	85%	16	100%	9
Variable Frequency Drives	135	84%	119	83%	16	94%	9
Renewable Power Generated?	132	26%	118	25%	14	36%	6
Carbon Offsets/Renewable Energy Cert. Purchase	118	19%	104	18%	14	21%	5
≥ 75% Guestrooms Have Digital Thermostats	113	99%	99	99%	14	100%	5
≥ 75% Guestrooms Have Occupancy Sensors	77	95%	67	94%	10	100%	
≥ 75% Meeting Rooms Have Digital Thermostats	90	88%	80	86%	10	100%	
≥ 75% Meeting Rooms Have Occupancy Sensors	38	82%	37	81%			
Energy Sub-metering	132	77%	118	76%	14	79%	6
Energy Tracking	124	100%	110	100%	14	100%	5
Benchmarking Energy among Peers	121	72%	107	68%	14	100%	5
Energy Audit	122	47%	108	52%	14	7%	5
Electric Vehicles	120	12%	106	12%	14	7%	5
Recycling in Common Areas	132	74%	116	74%	16	75%	9
Recycling Bins in Guestrooms	131	39%	115	42%	16	19%	9
≥ 75% Guestrooms with Soap/Shampoo Disp.	45	82%	41	80%			
Waste and Recycling Tracking	132	69%	116	69%	16	69%	9
Soap Donation	130	44%	114	43%	16	50%	9
≥ 75% F&B with Reusable Food Service Ware	103	94%	92	93%	11	100%	
Food Waste Composting	132	51%	116	52%	16	44%	9
Waste Audit	130	25%	114	27%	16	6%	9
≥ 75% Low-Flow Toilets	123	93%	108	93%	15	100%	8
≥ 75% Efficient Faucets	117	88%	101	87%	16	94%	9
≥ 75% Efficient Showerheads	108	88%	92	86%	16	100%	8
Water Tracking	134	99%	118	98%	16	100%	9
Graywater Reuse	134	82%	118	81%	16	94%	9
Low-flow Pre-Rinse Kitchen Spray Valves	133	81%	117	79%	16	100%	9
Water Sub-Metering	134	44%	118	44%	16	44%	9
Preventive Maintenance program	134	100%	118	100%	16	100%	9
Written Environmental Policy(ies)	132	79%	116	80%	16	69%	9
Green Practices Shared on Website	127	45%	111	47%	16	31%	9
Green Champion	133	59%	117	62%	16	38%	9
Green Team	129	62%	113	65%	16	44%	9
Staff Training	131	81%	115	83%	16	69%	9
Employee Volunteering Opps. During Work Hrs	131	93%	115	94%	16	88%	9
Staff Recognition	130	69%	114	72%	16	50%	9
Comment/Suggestion Process	131	60%	115	63%	16	44%	9
>50% Green Cleaning Products	129	63%	113	62%	16	69%	9
100% non-smoking	130	40%	114	39%	16	44%	9
≥ 75% of non-smoking guestrooms	131	58%	115	54%	16	88%	9
3rd-party Certification	125	21%	109	21%	16	19%	9
Carbon Footprint Measured	126	56%	110	55%	16	63%	9
Local Procurement Policy	128	81%	112	83%	16	69%	9
Green Roof	132	45%	116	45%	16	44%	9
Vegetable Garden	134	7%	118	8%	16	0%	9
Beekeeping	130	2%	114	2%	16	0%	9
Procurement requirements	127	59%	111	64%	16	25%	9

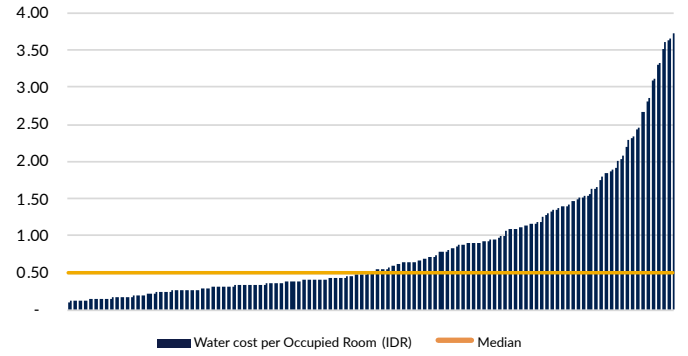
AIRPORT	RESORT		CITY/URBAN		
	Yes	No.	Yes	No.	Yes
	100%	12	75%	95	88%
	44%	9	44%	86	63%
	100%	13	92%	95	86%
	89%	13	92%	95	87%
	0%	13	38%	95	28%
	0%	12	8%	84	24%
	80%	11	100%	84	100%
		5	100%	59	97%
		8	100%	67	87%
				33	79%
	50%	13	92%	95	76%
	100%	12	100%	90	100%
	100%	12	75%	88	74%
	20%	12	33%	88	47%
	0%	12	42%	86	9%
	56%	12	58%	94	77%
	22%	12	58%	92	40%
				38	82%
	67%	12	75%	93	70%
	22%	13	54%	90	46%
		12	75%	76	96%
	44%	12	58%	93	51%
	44%	12	17%	91	24%
	100%	12	92%	90	93%
	100%	9	78%	87	87%
	100%	8	75%	83	89%
	100%	12	100%	95	98%
	67%	12	100%	95	82%
	89%	12	75%	94	81%
	33%	12	67%	95	41%
	100%	12	100%	95	100%
	100%	12	83%	94	76%
	11%	10	50%	91	46%
	44%	12	75%	94	59%
	44%	12	58%	91	64%
	67%	12	83%	93	80%
	67%	12	92%	93	96%
	33%	12	58%	92	75%
	33%	12	75%	93	62%
	78%	12	83%	91	59%
	78%	12	67%	92	29%
	78%	12	75%	92	52%
	11%	10	10%	90	21%
	56%	10	50%	90	60%
	100%	12	75%	90	82%
	33%	12	42%	93	48%
	0%	12	17%	95	8%
	0%	10	0%	93	1%
	44%	12	67%	89	62%



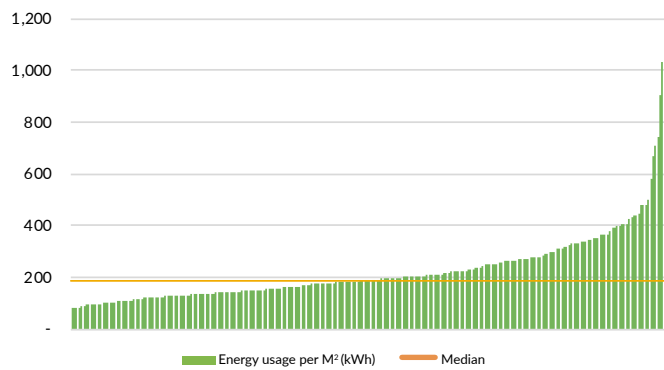
Water Usage Per Occupied Room (L)



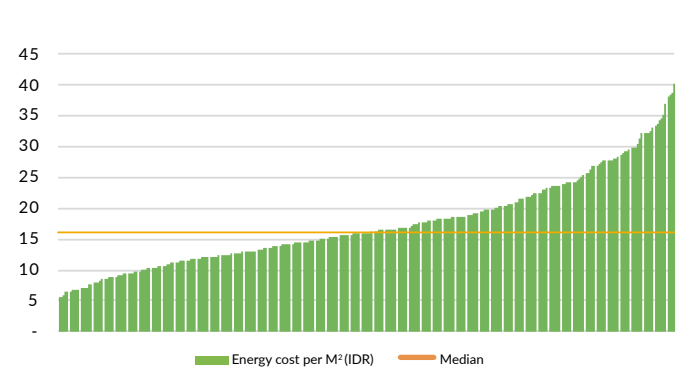
Water Cost Per Occupied Room (IDR)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (IDR)



INDONESIA		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	248	248	286	292	170	161	241	233	243	246
	High	1,070	639	40	24	4,674	3,873	6	4	315	449
	Mean	227	108	17	7	1,839	923	2	1	137	68
	U. Qrtr	267	128	22	9	2,683	1,225	3	1	162	81
	Median	191	69	16	5	1,763	608	1	1	126	45
	L.Qrtr	144	41	12	3	1,019	389	1	0	96	28
	Low	81	21	6	1	201	110	0	0	32	14
FULL SERVICE	No.	222	220	246	250	150	137	208	204	217	218
	High	1,070	639	40	24	4,674	3,873	6	4	315	449
	Mean	234	115	18	7	1,862	1,018	2	1	139	73
	U. Qrtr	277	277	22	9	2,719	1,301	3	1	170	86
	Median	195	77	16	6	1,817	705	2	1	127	50
	L.Qrtr	144	150	12	3	1,029	421	1	0	96	32
	Low	81	25	6	1	201	209	0	0	32	14
LIMITED SERVICE	No.	26	27	39	41	20	24	32	28	26	27
	High	273	185	23	17	3,542	907	5	1	161	133
	Mean	171	50	15	4	1,671	385	2	0	116	34
	U. Qrtr	197	170	18	5	2,323	548	2	1	134	37
	Median	182	37	16	3	1,549	320	1	0	124	25
	L.Qrtr	142	107	13	2	920	212	1	0	97	20
	Low	88	21	7	1	449	110	0	0	59	14
AIRPORT	No.	9	8	10	11	6	6	9	8	9	8
	High	345	98	37	7	2,902	795	4	1	210	42
	Mean	213	56	20	4	2,146	452	2	0	131	34
	U. Qrtr	269	188	24	5	2,522	552	3	0	148	41
	Median	195	54	17	3	2,011	374	2	0	122	36
	L.Qrtr	150	148	14	3	1,754	313	1	0	101	31
	Low	132	26	10	2	1,591	265	0	0	75	15
RESORT	No.	70	76	74	73	35	32	64	65	68	75
	High	1,033	613	39	23	4,674	3,873	6	4	258	449
	Mean	228	141	17	8	1,664	1,211	2	1	132	92
	U. Qrtr	270	324	21	11	2,368	1,768	2	2	163	100
	Median	188	103	15	7	1,349	1,007	2	1	127	66
	L.Qrtr	135	166	12	4	565	423	1	0	90	35
	Low	81	27	6	1	221	232	0	0	32	14
CITY/ URBAN	No.	105	104	117	119	81	77	99	97	104	103
	High	1,070	639	39	24	4,385	3,453	5		307	412
	Mean	237	97	18	7	1,887	883	2		145	60
	U. Qrtr	273	264	22	9	2,706	1,195	2		172	80
	Median	194	60	16	5	1,838	582	1		129	41
	L.Qrtr	153	134	13	3	1,150	429	1		101	26
	Low	83	25	7	1	201	110	0		48	14
CONVENTION/ CONFERENCE CENTER	No.	21	20	25	25	13	11	20	22	21	20
	High	406	338	34	23	3,818	2,872	4	4	261	205
	Mean	212	105	18	8	2,173	1,224	2	1	132	65
	U. Qrtr	257	256	22	8	2,829	1,526	3	1	161	70
	Median	206	87	19	7	2,413	1,018	2	1	118	56
	L.Qrtr	144	186	12	5	1,265	709	1	0	95	40
	Low	109	39	9	3	234	537	0	0	72	27

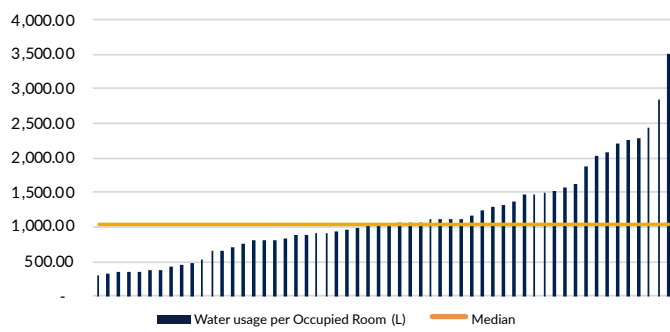
INDONESIA: Utilities & Carbon Emission Snapshot

INDONESIA	ALL		FULL SERVICE		LIMITED SERVICE		No.
	No.	Yes	No.	Yes	No.	Yes	
Towel Reuse Program?	323	88%	280	88%	42	90%	11
Opt-Out Linen Reuse	323	62%	280	63%	42	60%	11
≥ 75% LED Lighting	323	75%	280	74%	42	76%	11
Variable Frequency Drives	323	62%	280	64%	42	50%	11
Renewable Power Generated?	323	19%	280	19%	42	19%	11
Carbon Offsets or Renewable Energy Certificate Purchase	323	5%	280	5%	42	5%	11
≥ 75% Guestrooms Have Digital Thermostats	323	67%	280	70%	42	50%	11
≥ 75% Guestrooms Have Occupancy Sensors	321	60%	278	63%	42	45%	11
≥ 75% Meeting Rooms Have Digital Thermostats	323	57%	280	59%	42	48%	11
≥ 75% Meeting Rooms Have Occupancy Sensors	322	50%	279	52%	42	40%	11
Energy Tracking	323	98%	280	98%	42	100%	11
Benchmarking Energy among Peers	323	64%	280	65%	42	57%	11
Energy Audit	300	47%	260	47%	39	44%	11
Electric Vehicles	323	11%	280	13%	42	2%	11
Recycling in Common Areas	318	45%	276	47%	41	32%	11
Recycling Bins in Guestrooms	321	26%	278	26%	42	24%	11
≥ 75% Guestrooms with Bulk Soap/Shampoo Disp.	320	43%	277	42%	42	45%	11
Waste and Recycling Tracking	316	48%	274	50%	41	37%	11
Soap Donation	323	0%	280	0%	42	0%	11
≥ 75% F&B with Reusable Food Service Ware	314	76%	272	77%	41	68%	11
Food Waste Composting	315	23%	273	26%	41	10%	11
Waste Audit	315	47%	273	48%	41	39%	11
≥ 75% Low-Flow Toilets	315	65%	272	65%	42	60%	11
≥ 75% Efficient Faucets	316	50%	273	52%	42	36%	11
≥ 75% Efficient Showerheads	318	54%	275	55%	42	48%	11
Water Tracking	316	97%	274	97%	41	100%	11
Graywater Reuse	323	34%	280	36%	42	19%	11
Low-flow Pre-Rinse Kitchen Spray Valves	315	63%	273	66%	41	46%	10
Water Sub-Metering	323	49%	280	52%	42	29%	11
Preventive Maintenance program	323	96%	280	95%	42	98%	11
Written Environmental Policy(ies)	323	78%	280	78%	42	79%	11
Green Practices Shared on Website	323	62%	280	62%	42	60%	11
Green Champion	323	63%	280	64%	42	60%	11
Green Team	323	76%	280	75%	42	83%	11
Staff Training	323	75%	280	75%	42	76%	11
Employee Volunteering Opportunities During Work Hours	323	84%	280	85%	42	79%	11
Staff Recognition	323	54%	280	55%	42	52%	11
Comment/Suggestion Process	323	63%	280	62%	42	71%	11
>50% Green Cleaning Products	323	76%	280	75%	42	83%	11
100% non-smoking	323	41%	280	42%	42	36%	11
≥ 75% of non-smoking guestrooms	311	59%	268	59%	42	57%	11
3rd-party Certification	314	46%	273	47%	40	43%	11
Carbon Footprint Measured	323	50%	280	50%	42	50%	11
Local Procurement Policy	323	79%	280	80%	42	79%	11
Green Roof	323	44%	280	45%	42	38%	11
Vegetable Garden	323	11%	280	11%	42	10%	11
Beekeeping	323	2%	280	2%	42	0%	11
Procurement requirements	323	65%	280	65%	42	64%	11

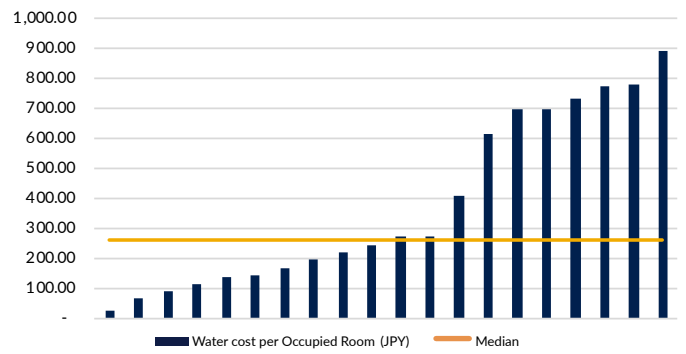
AIRPORT	RESORT		CITY/URBAN		CONV./ CONF. CENTER		B&B		
	Yes	No.	Yes	No.	Yes	No.	Yes	No.	Yes
	91%	86	91%	130	92%	27	96%	50	72%
	73%	86	65%	130	58%	27	48%	50	74%
	73%	86	74%	130	77%	27	67%	50	74%
	55%	86	70%	130	65%	27	74%	50	40%
	18%	86	21%	130	12%	27	37%	50	28%
	0%	86	9%	130	4%	27	7%	50	2%
	64%	86	67%	130	70%	27	74%	50	60%
	55%	85	64%	130	63%	26	62%	50	52%
	64%	86	57%	130	62%	27	59%	50	52%
	55%	86	52%	130	55%	26	42%	50	44%
	100%	86	100%	130	98%	27	96%	50	98%
	91%	86	66%	130	60%	27	78%	50	62%
	36%	80	49%	125	47%	24	63%	44	39%
	9%	86	30%	130	5%	27	4%	50	0%
	45%	85	66%	129	38%	26	54%	50	28%
	18%	85	39%	129	19%	27	26%	50	26%
	55%	85	39%	130	45%	27	26%	49	51%
	36%	83	66%	129	44%	26	50%	49	33%
	0%	86	0%	130	0%	27	0%	50	0%
	91%	84	77%	127	81%	26	85%	48	58%
	18%	84	40%	127	19%	27	33%	48	6%
	36%	85	55%	126	44%	26	81%	49	27%
	82%	85	72%	128	66%	24	50%	50	58%
	55%	85	51%	128	51%	25	40%	49	49%
	36%	85	56%	128	59%	27	52%	49	43%
	91%	84	98%	127	98%	26	100%	50	96%
	27%	86	55%	130	25%	27	56%	50	10%
	20%	85	73%	126	69%	26	77%	50	44%
	36%	86	64%	130	38%	27	67%	50	48%
	100%	86	95%	130	96%	27	100%	50	94%
	100%	86	83%	130	80%	27	89%	50	60%
	100%	86	72%	130	57%	27	78%	50	44%
	91%	86	69%	130	61%	27	81%	50	46%
	73%	86	77%	130	75%	27	78%	50	72%
	91%	86	77%	130	75%	27	89%	50	68%
	91%	86	88%	130	79%	27	89%	50	82%
	45%	86	55%	130	57%	27	63%	50	40%
	64%	86	73%	130	60%	27	67%	50	56%
	82%	86	87%	130	73%	27	78%	50	64%
	55%	86	43%	130	32%	27	48%	50	56%
	73%	83	72%	126	52%	23	48%	50	52%
	45%	83	63%	125	43%	27	48%	49	31%
	27%	86	58%	130	49%	27	67%	50	40%
	82%	86	90%	130	78%	27	93%	50	56%
	36%	86	47%	130	52%	27	33%	50	26%
	9%	86	3%	130	18%	27	11%	50	4%
	0%	86	3%	130	2%	27	4%	50	0%
	73%	86	76%	130	65%	27	74%	50	46%



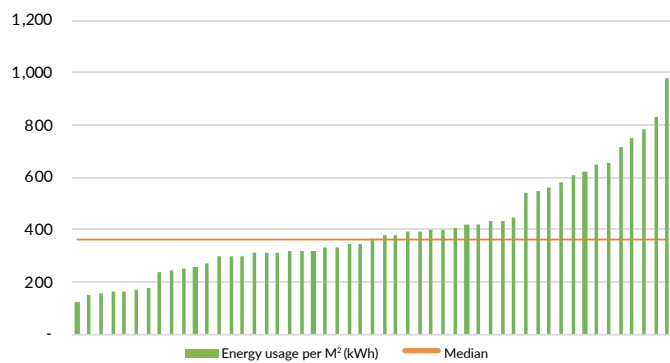
Water Usage Per Occupied Room (L)



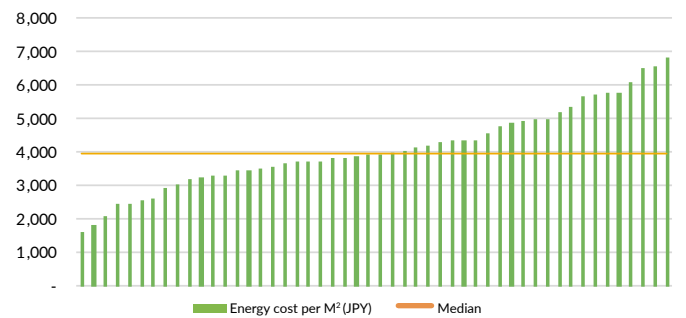
Water Cost Per Occupied Room (JPY)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (JPY)



JAPAN		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	51	54	50	59	50	56	19	20	51	53
	High	979	340	6,799	4,035	8,793	3,515	2,756	893	414	110
	Mean	405	142	4,107	1,526	3,682	1,153	1,170	377	153	52
	U. Qrtr	495	201	4,934	1,990	4,508	1,462	1,747	697	183	75
	Median	366	124	3,942	1,261	3,316	1,047	783	258	140	44
	L.Qrtr	300	69	3,353	808	2,542	740	485	142	116	30
	Low	125	23	1,618	277	1,649	295	128	23	39	9
FULL SERVICE	No.	41	46	40	48	41	45	19	20	41	45
	High	979	340	6,799	4,035	8,793	3,515	2,756	893	414	110
	Mean	443	160	4,168	1,774	3,695	1,325	1,170	377	169	59
	U. Qrtr	560	555	4,934	2,226	3,823	1,526	1,747	697	213	81
	Median	394	148	3,942	1,422	3,273	1,109	783	258	154	48
	L.Qrtr	315	318	3,353	1,080	2,507	902	485	142	128	39
	Low	152	28	1,618	525	1,649	486	128	23	71	14
LIMITED SERVICE	No.	10	8	10	11	9	11			10	8
	High	420	55	5,799	934	4,988	1,113			142	26
	Mean	248	36	3,863	445	3,626	447			90	14
	U. Qrtr	323	243	4,804	499	4,567	434			120	15
	Median	238	32	3,881	394	4,037	364			92	13
	L.Qrtr	165	156	2,737	321	2,649	352			54	10
	Low	125	23	2,443	277	1,808	295			39	9
RESORT	No.	7	10	8	10	8	10			7	9
	High	423	329	5,770	3,916	6,175	2,444			164	98
	Mean	328	158	4,068	1,996	3,703	1,520			133	55
	U. Qrtr	402	580	4,706	2,488	4,032	1,933			154	81
	Median	347	128	3,708	1,756	3,361	1,492			137	46
	L.Qrtr	282	312	3,200	1,205	3,008	1,104			120	37
	Low	158	49	2,957	761	2,335	712			79	24
CITY/ URBAN	No.	36	38	32	39	35	38	16	17	36	38
	High	979	340	6,799	4,035	8,793	3,515	2,756	893	414	110
	Mean	450	151	4,106	1,634	3,639	1,158	1,274	411	169	56
	U. Qrtr	565	545	4,896	2,042	4,108	1,352	1,965	699	214	77
	Median	392	141	3,942	1,289	3,273	1,048	873	273	153	50
	L.Qrtr	318	314	3,421	1,022	2,578	803	525	144	125	38
	Low	152	23	1,835	301	1,649	295	128	23	68	9

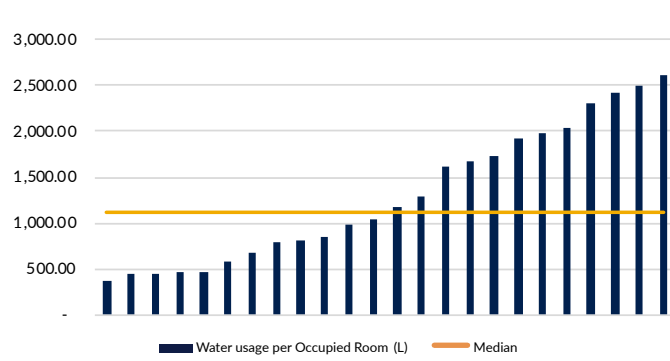
JAPAN: Utilities & Carbon Emission Snapshot

JAPAN	ALL		FULL SERVICE		LIMITED SERVICE		RE
	No.	Yes	No.	Yes	No.	Yes	No.
Towel Reuse Program?	84	77%	57	88%	27	56%	12
Opt-Out Linen Reuse	23	61%	20	60%			6
≥ 75% LED Lighting	82	43%	56	41%	26	46%	12
Variable Frequency Drives	73	58%	50	78%	23	13%	11
Renewable Power Generated?	78	10%	53	11%	25	8%	12
Carbon Offsets/Renewable Energy Cert. Purchase	71	8%	49	12%	22	0%	12
≥ 75% Guestrooms Have Digital Thermostats	65	66%	49	78%	16	31%	12
≥ 75% Guestrooms Have Occupancy Sensors	65	20%	49	16%	16	31%	12
≥ 75% Meeting Rooms Have Digital Thermostats	61	61%	49	71%	12	17%	12
≥ 75% Meeting Rooms Have Occupancy Sensors	63	3%	49	4%	14	0%	12
Energy Sub-metering	78	47%	52	62%	26	19%	11
Energy Tracking	64	94%	48	100%	16	75%	11
Benchmarking Energy among Peers	64	36%	48	46%	16	6%	11
Energy Audit	64	42%	48	52%	16	13%	11
Electric Vehicles	70	23%	48	33%	22	0%	11
Recycling in Common Areas	74	77%	53	83%	21	62%	11
Recycling Bins in Guestrooms	74	30%	53	34%	21	19%	11
≥ 75% Guestrooms with Soap/Shampoo Disp.	73	45%	52	27%	21	90%	11
Waste and Recycling Tracking	74	61%	53	70%	21	38%	11
Soap Donation	74	20%	53	26%	21	5%	11
≥ 75% F&B with Reusable Food Service Ware	69	62%	52	65%	17	53%	11
Food Waste Composting	72	33%	53	43%	19	5%	11
Waste Audit	72	32%	52	35%	20	25%	11
≥ 75% Low-Flow Toilets	71	34%	53	32%	18	39%	11
≥ 75% Efficient Faucets	70	21%	52	25%	18	11%	11
≥ 75% Efficient Showerheads	70	31%	52	25%	18	50%	11
Water Tracking	73	95%	53	98%	20	85%	11
Graywater Reuse	71	27%	53	34%	18	6%	11
Low-flow Pre-Rinse Kitchen Spray Valves	70	36%	53	42%	17	18%	11
Water Sub-Metering	66	65%	53	70%	13	46%	11
Preventive Maintenance program	74	97%	53	98%	21	95%	11
Written Environmental Policy(ies)	74	49%	53	55%	21	33%	11
Green Practices Shared on Website	74	27%	53	28%	21	24%	11
Green Champion	74	57%	53	72%	21	19%	11
Green Team	70	57%	52	73%	18	11%	11
Staff Training	70	46%	52	56%	18	17%	11
Employee Volunteering Opps. During Work Hrs	73	58%	53	74%	20	15%	11
Staff Recognition	72	25%	52	33%	20	5%	11
Comment/Suggestion Process	73	42%	53	49%	20	25%	11
>50% Green Cleaning Products	71	24%	52	27%	19	16%	11
100% non-smoking	73	19%	53	15%	20	30%	11
≥ 75% of non-smoking guestrooms	73	66%	53	66%	20	65%	11
3rd-party Certification	70	13%	50	18%	20	0%	11
Carbon Footprint Measured	73	45%	53	57%	20	15%	11
Local Procurement Policy	72	53%	52	67%	20	15%	11
Green Roof	73	21%	53	21%	20	20%	11
Vegetable Garden	73	1%	53	2%	20	0%	11
Beekeeping	73	1%	53	0%	20	5%	11
Procurement requirements	60	18%	47	21%	13	8%	11

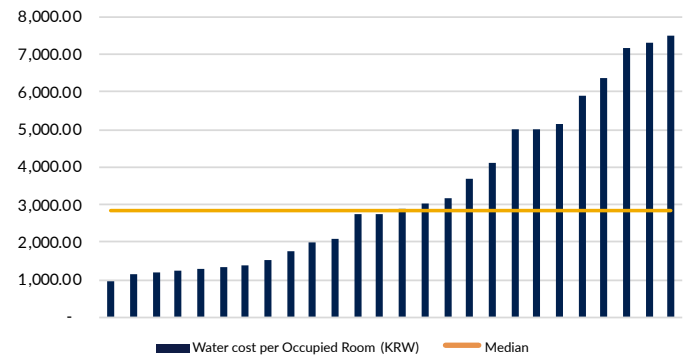
SORT	CITY/URBAN		B&B		
	Yes	No.	Yes	No.	Yes
	92%	50	86%	13	31%
	67%	15	60%		
	50%	47	40%	13	23%
	82%	42	69%	12	0%
	42%	45	4%	13	8%
	25%	40	5%	12	0%
	75%	39	74%	7	14%
	17%	39	15%	7	43%
	75%	39	67%		
	0%	40	5%		
	73%	46	52%	13	0%
	100%	39	97%	7	57%
	64%	39	38%	7	0%
	45%	39	51%	7	0%
	64%	40	23%	12	0%
	100%	46	76%	8	63%
	64%	46	26%	8	13%
	27%	45	38%	8	100%
	82%	46	63%	8	38%
	36%	46	22%	8	0%
	82%	43	58%	6	67%
	64%	45	33%	7	0%
	45%	44	34%	8	13%
	36%	44	34%	7	29%
	27%	44	25%	7	0%
	27%	44	23%	7	57%
	100%	45	96%	8	88%
	45%	45	31%	6	0%
	45%	45	38%	5	0%
	73%	43	67%		
	91%	46	100%	8	88%
	82%	46	48%	8	25%
	64%	46	22%	8	13%
	82%	46	63%	8	13%
	73%	45	64%	6	0%
	73%	45	44%	6	17%
	91%	46	61%	7	0%
	45%	45	22%	7	0%
	64%	46	43%	7	0%
	27%	44	25%	7	14%
	27%	46	15%	7	29%
	82%	46	70%	7	29%
	18%	43	12%	7	0%
	55%	46	48%	7	14%
	64%	45	58%	7	0%
	45%	46	13%	7	29%
	9%	46	0%	7	0%
	0%	46	2%	7	0%
	18%	37	16%	5	0%



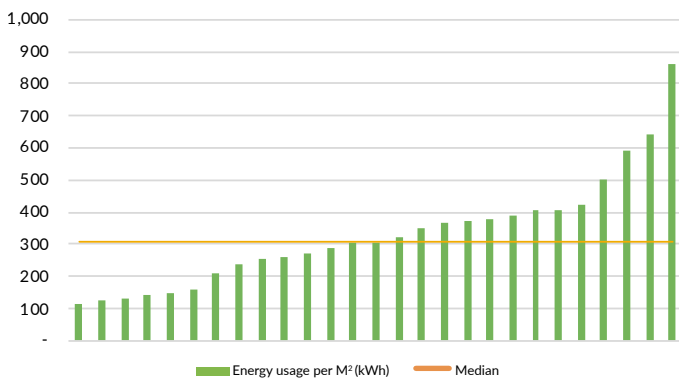
Water Usage Per Occupied Room (L)



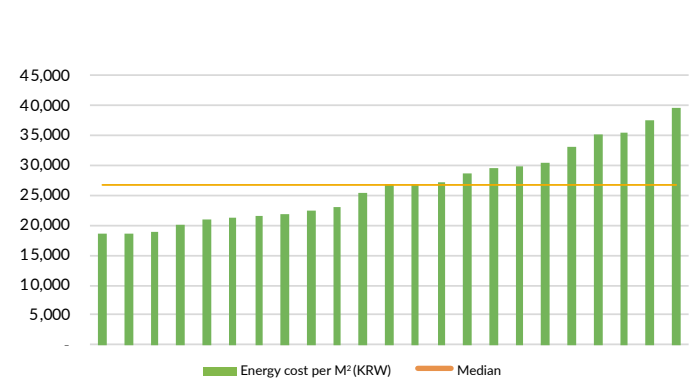
Water Cost Per Occupied Room (KRW)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (KRW)



KOREA		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	27	27	23	25	24	24	23	26	27	27
	High	860	377	39,659	25,083	6,349	2,604	9,025	7,491	295	171
	Mean	332	154	26,601	12,649	2,702	1,300	6,189	3,370	125	59
	U. Qrtr	396	226	30,033	18,394	2,973	1,933	7,564	5,006	147	84
	Median	306	150	26,815	12,236	2,421	1,113	6,709	2,819	117	40
	L.Qrtr	225	65	21,283	6,903	1,971	655	5,386	1,423	85	28
	Low	115	28	18,613	3,153	1,101	378	2,161	959	51	15
FULL SERVICE	No.	17	16	15	15	16	15	14	16	17	16
	High	860	377	39,659	25,083	6,349	2,604	7,875	7,491	295	171
	Mean	382	211	28,613	16,971	3,022	1,731	6,458	4,543	143	81
	U. Qrtr	424	443	30,033	19,393	3,595	2,178	7,526	6,000	161	99
	Median	373	216	28,595	17,106	2,421	1,727	6,785	4,547	124	77
	L.Qrtr	269	342	21,283	12,868	2,100	1,237	6,474	2,973	90	57
	Low	126	59	18,613	9,304	1,531	680	2,161	959	60	31
LIMITED SERVICE	No.	10	11	8	10	8	9	9	10	10	11
	High	381	150	30,310	12,538	3,024	851	9,025	2,093	131	51
	Mean	247	70	22,828	6,166	2,061	583	5,772	1,493	94	27
	U. Qrtr	301	278	23,507	7,143	2,690	793	7,736	1,681	114	32
	Median	257	59	21,575	5,409	2,126	468	5,386	1,369	92	25
	L.Qrtr	163	138	20,835	4,271	1,308	449	3,646	1,244	79	19
	Low	115	28	18,769	3,153	1,101	378	2,709	1,129	51	15
CITY/ URBAN	No.	19	20	16	18	17	18	15	19	19	20
	High	860	377	37,370	25,083	6,349	2,604	9,025	7,491	295	171
	Mean	367	173	27,199	13,760	2,807	1,391	6,361	3,794	135	65
	U. Qrtr	415	411	31,036	19,228	3,024	1,964	7,682	5,524	156	91
	Median	348	161	27,037	13,019	2,438	1,395	6,994	3,183	117	57
	L.Qrtr	257	250	22,046	7,743	2,029	708	5,434	1,621	89	32
	Low	133	48	18,613	3,375	1,221	378	2,161	959	67	15

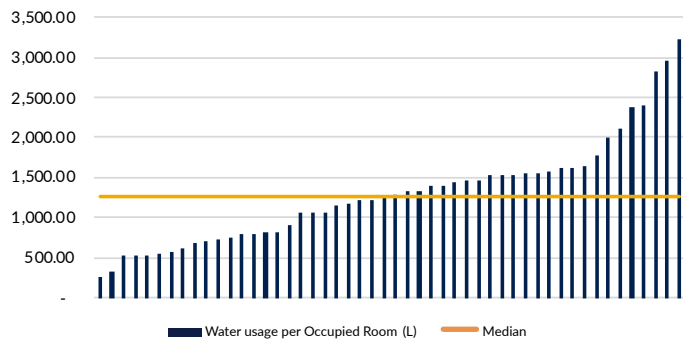
KOREA: Utilities & Carbon Emission Snapshot

KOREA	ALL		FULL SERVICE		LIMITED SERVICE		CI
	No.	Yes	No.	Yes	No.	Yes	No.
Towel Reuse Program?	30	77%	20	65%	10	100%	22
Opt-Out Linen Reuse	23	61%	13	62%	10	60%	16
≥ 75% LED Lighting	30	87%	20	90%	10	80%	22
Variable Frequency Drives	30	83%	20	85%	10	80%	22
Renewable Power Generated?	31	19%	20	15%	11	27%	22
Carbon Offsets/Renewable Energy Cert. Purchase	25	32%	16	19%	9	56%	19
≥ 75% Guestrooms Have Digital Thermostats	26	92%	17	88%	9	100%	20
≥ 75% Guestrooms Have Occupancy Sensors	26	92%	17	88%	9	100%	20
≥ 75% Meeting Rooms Have Digital Thermostats	26	69%	17	65%	9	78%	20
≥ 75% Meeting Rooms Have Occupancy Sensors	26	42%	17	47%	9	33%	20
Energy Sub-metering	30	63%	19	68%	11	55%	21
Energy Tracking	26	100%	17	100%	9	100%	20
Benchmarking Energy among Peers	26	81%	17	82%	9	78%	20
Energy Audit	26	65%	17	76%	9	44%	20
Electric Vehicles	25	44%	16	63%	9	11%	19
Recycling in Common Areas	29	86%	18	83%	11	91%	21
Recycling Bins in Guestrooms	29	28%	18	28%	11	27%	21
≥ 75% Guestrooms with Soap/Shampoo Disp.	28	21%	17	18%	11	27%	20
Waste and Recycling Tracking	29	79%	18	83%	11	73%	21
Soap Donation	28	29%	17	35%	11	18%	20
≥ 75% F&B with Reusable Food Service Ware	27	78%	17	82%	10	70%	20
Food Waste Composting	27	63%	17	71%	10	50%	20
Waste Audit	28	39%	17	47%	11	27%	20
≥ 75% Low-Flow Toilets	29	72%	19	68%	10	80%	21
≥ 75% Efficient Faucets	29	62%	19	58%	10	70%	21
≥ 75% Efficient Showerheads	29	59%	19	53%	10	70%	21
Water Tracking	30	100%	19	100%	11	100%	21
Graywater Reuse	30	37%	19	53%	11	9%	21
Low-flow Pre-Rinse Kitchen Spray Valves	29	45%	19	47%	10	40%	21
Water Sub-Metering	30	50%	19	63%	11	27%	21
Preventive Maintenance program	31	97%	20	95%	11	100%	22
Written Environmental Policy(ies)	30	93%	19	89%	11	100%	21
Green Practices Shared on Website	30	63%	19	63%	11	64%	21
Green Champion	30	73%	19	74%	11	73%	21
Green Team	30	73%	19	79%	11	64%	21
Staff Training	30	77%	19	74%	11	82%	21
Employee Volunteering Opps. During Work Hrs	30	90%	19	84%	11	100%	21
Staff Recognition	30	80%	19	84%	11	73%	21
Comment/Suggestion Process	30	77%	19	74%	11	82%	21
>50% Green Cleaning Products	29	55%	18	44%	11	73%	20
100% non-smoking	30	67%	19	68%	11	64%	21
≥ 75% of non-smoking guestrooms	31	94%	20	90%	11	100%	22
3rd-party Certification	30	47%	19	47%	11	45%	21
Carbon Footprint Measured	30	43%	19	47%	11	36%	21
Local Procurement Policy	29	52%	18	44%	11	64%	20
Green Roof	31	48%	20	30%	11	82%	22
Vegetable Garden	31	3%	20	5%	11	0%	22
Beekeeping	31	0%	20	0%	11	0%	22
Procurement requirements	27	33%	16	19%	11	55%	19

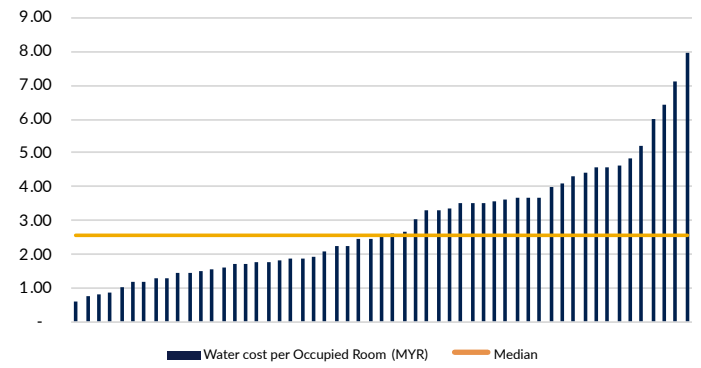
TY/URBAN	
	Yes
	73%
	63%
	95%
	91%
	23%
	37%
	95%
	95%
	70%
	45%
	71%
	100%
	80%
	60%
	47%
	90%
	29%
	20%
	81%
	30%
	85%
	55%
	30%
	81%
	62%
	67%
	100%
	43%
	48%
	48%
	100%
	100%
	57%
	76%
	76%
	81%
	90%
	81%
	67%
	55%
	67%
	91%
	52%
	52%
	60%
	45%
	5%
	0%
	32%



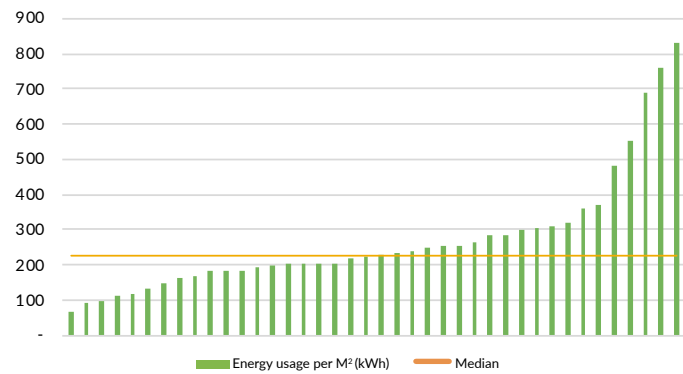
Water Usage Per Occupied Room (L)



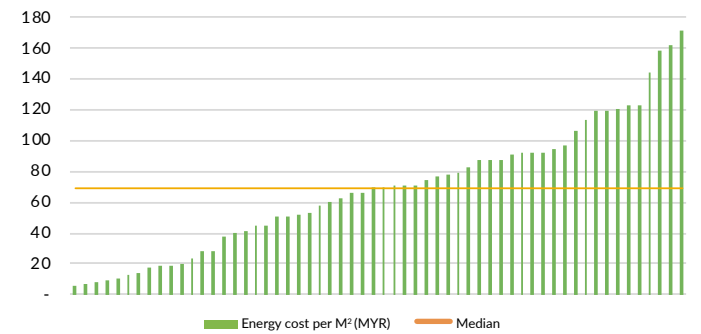
Water Cost Per Occupied Room (MYR)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (MYR)



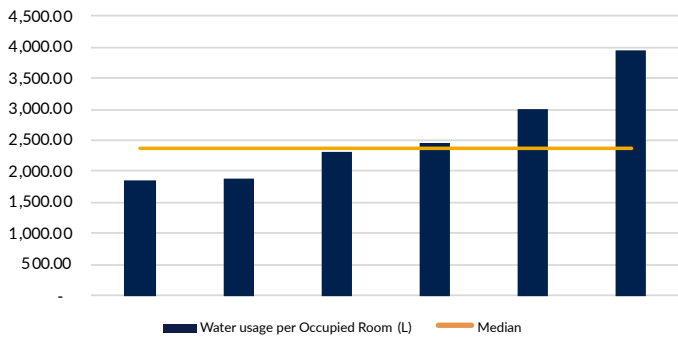
MALAYSIA		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	40	60	58	68	40	50	47	55	40	61
	High	830	260	171	59	6,957	3,219	20	8	420	175
	Mean	272	102	69	34	2,799	1,302	7	3	157	63
	U. Qrtr	300	130	92	41	3,525	1,561	8	4	186	75
	Median	227	92	70	34	2,865	1,270	6	3	134	59
	L.Qrtr	185	61	38	26	1,681	792	3	2	108	40
	Low	68	28	5	13	329	266	1	1	47	17
FULL SERVICE	No.	37	55	55	63	38	47	46	51	37	55
	High	830	260	171	59	6,957	3,219	20	8	420	175
	Mean	280	105	69	34	2,799	1,345	7	3	160	63
	U. Qrtr	304	306	92	41	3,555	1,567	8	4	184	75
	Median	229	98	69	34	2,865	1,336	6	3	135	61
	L.Qrtr	186	191	38	26	1,635	810	3	2	108	40
	Low	92	28	5	13	329	333	1	1	59	17
LIMITED SERVICE	No.	5	9	12	10	6	7	8	10	5	10
	High	252	139	123	50	6,499	3,219	14	6	156	159
	Mean	188	76	43	33	2,730	1,933	5	3	105	59
	U. Qrtr	229	241	84	40	2,933	2,671	8	5	133	64
	Median	203	64	21	33	2,229	1,527	3	3	108	43
	L.Qrtr	166	186	14	27	1,434	1,371	2	2	71	38
	Low	92	49	8	13	1,085	704	1	1	59	20
CITY/ URBAN	No.	34	47	43	53	31	39	36	40	34	47
	High	830	260	171	59	6,957	2,820	20	8	420	175
	Mean	287	109	78	34	2,984	1,203	7	3	165	65
	U. Qrtr	310	312	95	41	3,576	1,545	8	4	195	75
	Median	237	103	71	34	2,926	1,213	6	2	140	63
	L.Qrtr	186	193	52	26	2,089	796	4	2	118	41
	Low	68	28	5	13	427	266	2	1	47	17

MALAYSIA	ALL		FULL SERVICE		LIMITED SERVICE		No.
	No.	Yes	No.	Yes	No.	Yes	
Towel Reuse Program?	96	82%	85	85%	8	63%	25
Opt-Out Linen Reuse	72	61%	65	63%	5	60%	18
≥ 75% LED Lighting	97	75%	86	73%	8	88%	25
Variable Frequency Drives	98	61%	87	64%	8	50%	25
Renewable Power Generated?	95	12%	85	12%	8	13%	24
Carbon Offsets/Renewable Energy Cert. Purchase	83	11%	73	12%	8	0%	20
≥ 75% Guestrooms Have Digital Thermostats	84	67%	74	69%	8	50%	20
≥ 75% Guestrooms Have Occupancy Sensors	82	38%	72	36%	8	50%	20
≥ 75% Meeting Rooms Have Digital Thermostats	84	52%	74	53%	8	38%	20
≥ 75% Meeting Rooms Have Occupancy Sensors	82	26%	72	25%	8	25%	20
Energy Sub-metering	91	51%	81	51%	8	38%	21
Energy Tracking	84	99%	74	99%	8	100%	18
Benchmarking Energy among Peers	81	54%	71	56%	8	25%	20
Energy Audit	79	35%	69	36%	8	13%	18
Electric Vehicles	86	22%	76	24%	8	13%	21
Recycling in Common Areas	96	76%	86	78%	7	57%	25
Recycling Bins in Guestrooms	95	18%	85	20%	7	0%	25
≥ 75% Guestrooms with Soap/Shampoo Disp.	94	21%	84	18%	7	43%	25
Waste and Recycling Tracking	93	42%	83	41%	7	43%	24
Soap Donation	95	22%	85	21%	7	14%	24
≥ 75% F&B with Reusable Food Service Ware	93	65%	83	61%	7	86%	24
Food Waste Composting	92	22%	82	21%	7	29%	24
Waste Audit	92	16%	83	16%	7	0%	23
≥ 75% Low-Flow Toilets	92	74%	82	72%	7	86%	25
≥ 75% Efficient Faucets	92	48%	82	51%	7	29%	25
≥ 75% Efficient Showerheads	90	53%	82	56%	5	20%	24
Water Tracking	92	98%	82	99%	7	86%	22
Graywater Reuse	94	5%	84	6%	7	0%	25
Low-flow Pre-Rinse Kitchen Spray Valves	94	59%	84	58%	7	86%	25
Water Sub-Metering	94	41%	84	40%	7	29%	25
Preventive Maintenance program	95	95%	85	94%	7	100%	25
Written Environmental Policy(ies)	95	57%	85	56%	7	57%	25
Green Practices Shared on Website	92	39%	82	39%	7	29%	24
Green Champion	95	42%	85	44%	7	14%	25
Green Team	95	45%	85	47%	7	14%	25
Staff Training	95	47%	85	47%	7	29%	25
Employee Volunteering Opps. During Work Hrs	93	67%	83	66%	7	57%	24
Staff Recognition	92	43%	82	44%	7	29%	24
Comment/Suggestion Process	92	48%	82	49%	7	29%	24
>50% Green Cleaning Products	91	48%	81	51%	7	29%	24
100% non-smoking	93	44%	83	43%	7	57%	25
≥ 75% of non-smoking guestrooms	94	60%	84	62%	7	57%	25
3rd-party Certification	91	21%	81	22%	7	14%	24
Carbon Footprint Measured	92	23%	82	26%	7	0%	24
Local Procurement Policy	93	54%	83	55%	7	29%	24
Green Roof	94	20%	84	20%	7	29%	25
Vegetable Garden	94	6%	84	6%	7	14%	25
Beekeeping	94	3%	84	2%	7	14%	25
Procurement requirements	92	41%	82	41%	7	29%	24

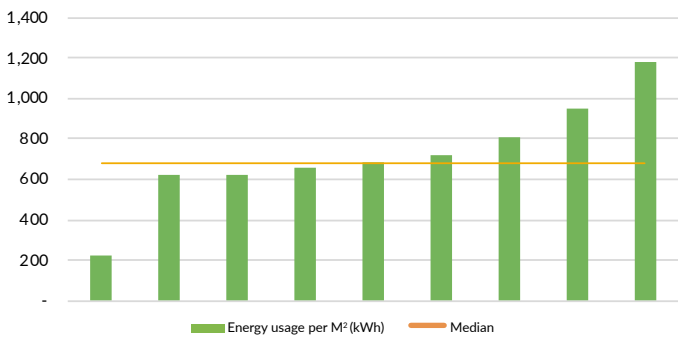
RESORT	CITY/URBAN		
	Yes	No.	Yes
	88%	63	79%
	67%	47	62%
	80%	65	74%
	48%	65	66%
	13%	63	10%
	0%	57	16%
	60%	58	69%
	35%	56	36%
	55%	58	53%
	30%	56	25%
	71%	64	44%
	100%	61	98%
	60%	56	54%
	33%	56	36%
	48%	59	15%
	76%	63	75%
	16%	62	18%
	20%	61	25%
	42%	61	44%
	25%	63	21%
	58%	61	67%
	25%	60	22%
	17%	61	18%
	72%	59	71%
	28%	59	54%
	42%	58	55%
	100%	62	97%
	4%	61	5%
	40%	61	66%
	48%	61	39%
	92%	62	95%
	72%	62	53%
	50%	60	38%
	44%	62	42%
	52%	62	44%
	52%	62	47%
	75%	61	66%
	63%	60	37%
	46%	60	52%
	50%	59	49%
	52%	60	40%
	60%	61	57%
	17%	59	24%
	21%	60	23%
	42%	61	57%
	8%	61	23%
	8%	61	5%
	8%	61	2%
	38%	60	45%



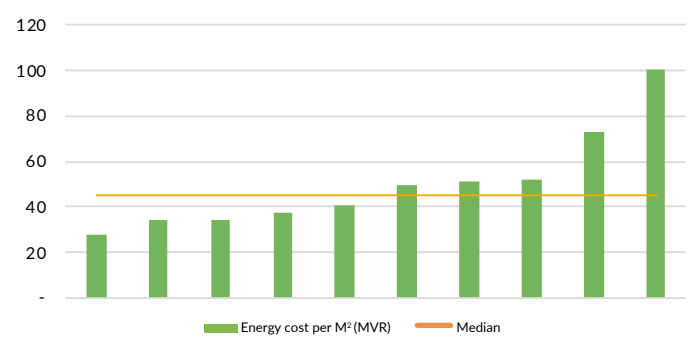
Water Usage Per Occupied Room (L)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (MVR)



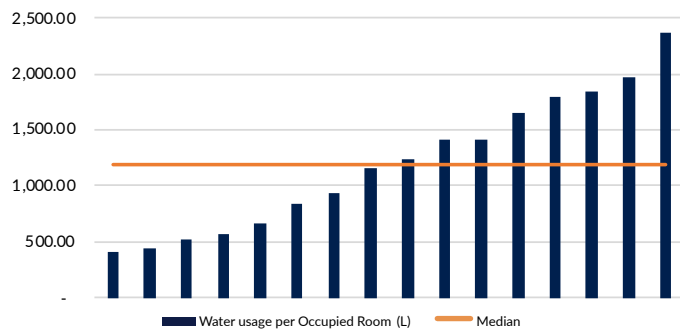
MALDIVES		ENERGY				WATER		GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Usage PSM	Usage POR
ALL	No.	9	8	10	11	6	6	9	8
	High	1,183	675	100	96	5,947	3,940	346	198
	Mean	718	493	50	44	3,589	2,570	215	151
	U. Qtr	808	627	52	43	5,153	2,855	228	186
	Median	682	580	45	39	2,987	2,378	211	173
	L.Qtr	622	324	35	33	2,188	1,977	195	100
	Low	227	240	28	15	1,816	1,867	83	88
FULL SERVICE	No.	9	8	10	11	6	6	9	8
	High	1,183	675	100	96	5,947	3,940	346	198
	Mean	718	493	50	44	3,589	2,570	215	151
	U. Qtr	808	808	52	43	5,153	2,855	228	186
	Median	682	580	45	39	2,987	2,378	211	173
	L.Qtr	622	622	-	33	2,188	1,977	195	100
	Low	227	240	28	15	1,816	1,867	83	88
RESORT	No.	9	8	10	11	6	6	9	8
	High	1,183	675	100	96	5,947	3,940	346	198
	Mean	718	493	50	44	3,589	2,570	215	151
	U. Qtr	808	808	52	43	5,153	2,855	228	186
	Median	682	580	45	39	2,987	2,378	211	173
	L.Qtr	622	622	35	33	2,188	1,977	195	100
	Low	227	240	28	15	1,816	1,867	83	88

MALDIVES: Utilities & Carbon Emission Snapshot

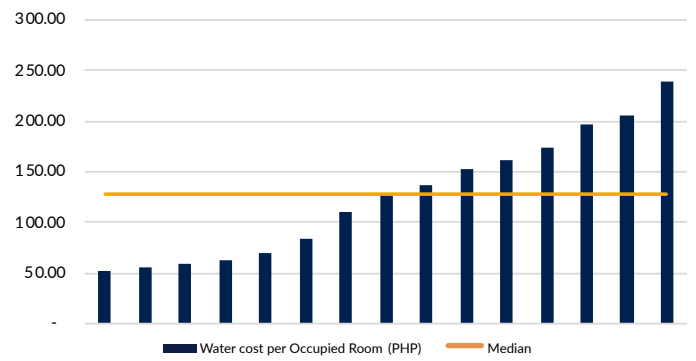
MALDIVES	ALL		FULL SERVICE		RESORT	
	No.	Yes	No.	Yes	No.	Yes
Towel Reuse Program?	14	93%	14	93%	14	93%
Opt-Out Linen Reuse	13	38%	13	38%	13	38%
≥ 75% LED Lighting	14	93%	14	93%	14	93%
Variable Frequency Drives	14	64%	14	64%	14	64%
Renewable Power Generated?	12	83%	12	83%	12	83%
Carbon Offsets/Renewable Energy Cert. Purchase	12	25%	12	25%	12	25%
≥ 75% Guestrooms Have Digital Thermostats	12	75%	12	75%	12	75%
≥ 75% Guestrooms Have Occupancy Sensors	12	42%	12	42%	12	42%
≥ 75% Meeting Rooms Have Digital Thermostats	12	67%	12	67%	12	67%
≥ 75% Meeting Rooms Have Occupancy Sensors	12	17%	12	17%	12	17%
Energy Sub-metering	11	45%	11	45%	11	45%
Energy Tracking	12	100%	12	100%	12	100%
Benchmarking Energy among Peers	12	92%	12	92%	12	92%
Energy Audit	12	75%	12	75%	12	75%
Electric Vehicles	12	83%	12	83%	12	83%
Recycling in Common Areas	14	79%	14	79%	14	79%
Recycling Bins in Guestrooms	14	50%	14	50%	14	50%
≥ 75% Guestrooms with Soap/Shampoo Disp.	14	93%	14	93%	14	93%
Waste and Recycling Tracking	14	79%	14	79%	14	79%
Soap Donation	14	21%	14	21%	14	21%
≥ 75% F&B with Reusable Food Service Ware	14	93%	14	93%	14	93%
Food Waste Composting	14	29%	14	29%	14	29%
Waste Audit	14	64%	14	64%	14	64%
≥ 75% Low-Flow Toilets	14	100%	14	100%	14	100%
≥ 75% Efficient Faucets	14	93%	14	93%	14	93%
≥ 75% Efficient Showerheads	14	64%	14	64%	14	64%
Water Tracking	14	100%	14	100%	14	100%
Graywater Reuse	14	79%	14	79%	14	79%
Low-flow Pre-Rinse Kitchen Spray Valves	14	79%	14	79%	14	79%
Water Sub-Metering	14	79%	14	79%	14	79%
Preventive Maintenance program	14	100%	14	100%	14	100%
Written Environmental Policy(ies)	14	86%	14	86%	14	86%
Green Practices Shared on Website	14	64%	14	64%	14	64%
Green Champion	14	93%	14	93%	14	93%
Green Team	14	86%	14	86%	14	86%
Staff Training	14	93%	14	93%	14	93%
Employee Volunteering Opps. During Work Hrs	14	100%	14	100%	14	100%
Staff Recognition	14	86%	14	86%	14	86%
Comment/Suggestion Process	14	79%	14	79%	14	79%
>50% Green Cleaning Products	14	86%	14	86%	14	86%
100% non-smoking	14	43%	14	43%	14	43%
≥ 75% of non-smoking guestrooms	14	100%	14	100%	14	100%
3rd-party Certification	14	64%	14	64%	14	64%
Carbon Footprint Measured	14	79%	14	79%	14	79%
Local Procurement Policy	14	86%	14	86%	14	86%
Green Roof	14	21%	14	21%	14	21%
Vegetable Garden	14	14%	14	14%	14	14%
Beekeeping	14	0%	14	0%	14	0%
Procurement requirements	14	64%	14	64%	14	64%



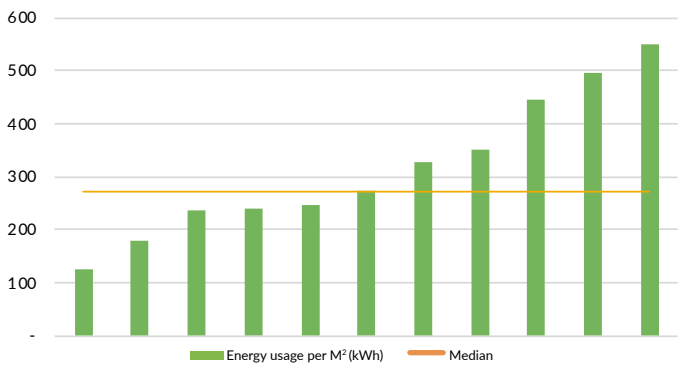
Water Usage Per Occupied Room (L)



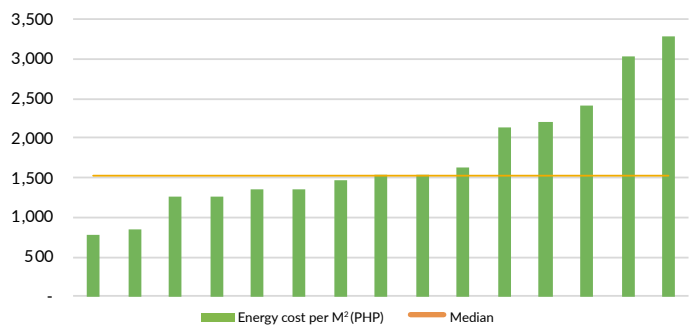
Water Cost Per Occupied Room (PHP)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (PHP)



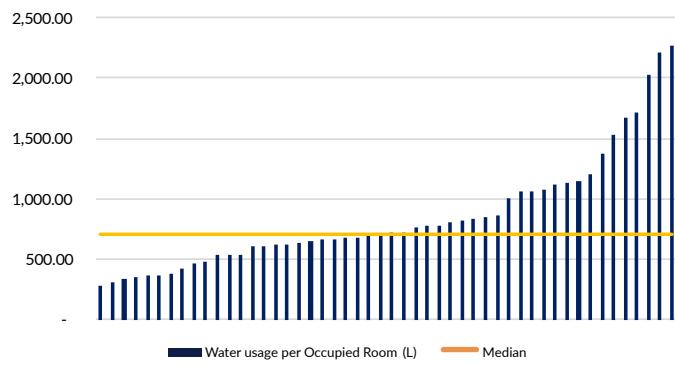
PHILIPPINES		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	11	13	15	15	14	16	11	15	11	13
	High	552	211	3,295	1,153	4,457	2,375	444	239	303	105
	Mean	316	122	1,741	697	2,652	1,201	215	125	172	66
	U. Qrtr	400	149	2,174	857	3,078	1,690	270	167	205	80
	Median	273	116	1,526	769	2,808	1,189	241	128	142	66
	L.Qrtr	239	97	1,307	520	1,920	638	108	65	124	51
	Low	125	63	782	169	937	406	69	51	74	33
FULL SERVICE	No.	10	11	13	13	13	14	9	13	10	11
	High	498	211	3,295	1,153	4,457	2,375	444	206	303	105
	Mean	293	129	1,678	777	2,622	1,312	214	114	160	70
	U. Qrtr	346	446	2,174	890	3,088	1,758	249	152	188	83
	Median	260	123	1,526	782	2,791	1,317	241	110	136	71
	L.Qrtr	238	248	1,307	704	1,734	868	118	62	124	59
	Low	125	63	782	342	937	516	69	51	74	33
CITY/ URBAN	No.	10	11	13	13	12	13	9	12	10	11
	High	552	211	3,295	1,153	4,457	2,375	444	239	303	105
	Mean	330	124	1,847	682	2,872	1,167	217	133	179	67
	U. Qrtr	423	446	2,213	824	3,223	1,656	292	179	212	83
	Median	300	116	1,538	769	2,836	1,149	241	132	163	71
	L.Qrtr	242	238	1,355	457	2,633	572	99	67	126	45
	Low	125	63	782	169	937	406	69	51	74	33

PHILIPPINES: Utilities & Carbon Emission Snapshot

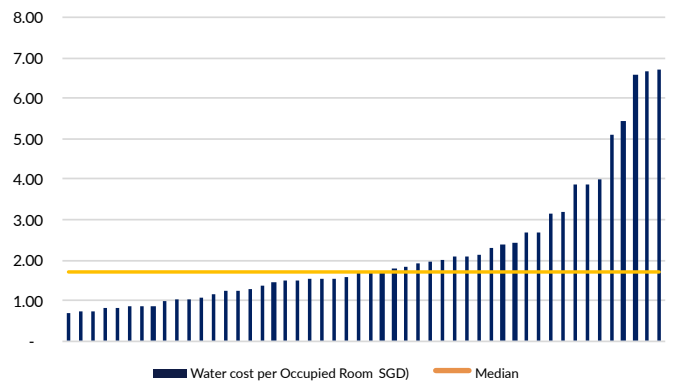
PHILIPPINES	ALL		FULL SERVICE		CITY/URBAN	
	No.	Yes	No.	Yes	No.	Yes
Towel Reuse Program?	18	94%	16	94%	15	93%
Opt-Out Linen Reuse	17	82%	15	87%	14	86%
≥ 75% LED Lighting	18	72%	16	69%	15	73%
Variable Frequency Drives	18	83%	16	88%	15	80%
Renewable Power Generated?	17	6%	15	7%	15	7%
Carbon Offsets/Renewable Energy Cert. Purchase	15	7%	13	8%	13	0%
≥ 75% Guestrooms Have Digital Thermostats	18	67%	16	69%	15	73%
≥ 75% Guestrooms Have Occupancy Sensors	18	50%	16	44%	15	53%
≥ 75% Meeting Rooms Have Digital Thermostats	18	50%	16	44%	15	60%
≥ 75% Meeting Rooms Have Occupancy Sensors	18	11%	16	6%	15	13%
Energy Sub-metering	18	61%	16	63%	15	60%
Energy Tracking	18	100%	16	100%	15	100%
Benchmarking Energy among Peers	17	59%	15	60%	15	60%
Energy Audit	16	50%	14	57%	14	57%
Electric Vehicles	18	0%	16	0%	15	0%
Recycling in Common Areas	18	78%	16	75%	16	75%
Recycling Bins in Guestrooms	19	21%	17	18%	16	19%
≥ 75% Guestrooms with Soap/Shampoo Disp.	18	11%	16	0%	15	13%
Waste and Recycling Tracking	17	82%	15	80%	14	86%
Soap Donation	18	83%	16	81%	15	93%
≥ 75% F&B with Reusable Food Service Ware	16	81%	14	86%	13	77%
Food Waste Composting	19	47%	17	47%	16	44%
Waste Audit	19	47%	17	47%	16	38%
≥ 75% Low-Flow Toilets	13	92%	11	91%	11	91%
≥ 75% Efficient Faucets	11	100%	9	100%	10	100%
≥ 75% Efficient Showerheads	12	100%	10	100%	11	100%
Water Tracking	18	100%	16	100%	15	100%
Graywater Reuse	18	39%	16	38%	15	33%
Low-flow Pre-Rinse Kitchen Spray Valves	18	56%	16	50%	15	53%
Water Sub-Metering	18	72%	16	75%	15	67%
Preventive Maintenance program	18	100%	16	100%	16	100%
Written Environmental Policy(ies)	18	100%	16	100%	16	100%
Green Practices Shared on Website	15	73%	13	69%	13	69%
Green Champion	19	89%	17	94%	16	94%
Green Team	18	83%	16	94%	16	88%
Staff Training	18	78%	16	75%	16	81%
Employee Volunteering Opps. During Work Hrs	18	100%	16	100%	16	100%
Staff Recognition	16	75%	14	71%	14	71%
Comment/Suggestion Process	17	76%	15	80%	15	80%
>50% Green Cleaning Products	15	80%	13	77%	13	85%
100% non-smoking	18	67%	16	63%	16	69%
≥ 75% of non-smoking guestrooms	18	83%	16	81%	15	87%
3rd-party Certification	17	41%	15	40%	15	40%
Carbon Footprint Measured	18	56%	16	63%	16	56%
Local Procurement Policy	17	76%	15	80%	15	80%
Green Roof	19	42%	17	47%	16	44%
Vegetable Garden	19	16%	17	18%	16	19%
Beekeeping	18	0%	16	0%	15	0%
Procurement requirements	15	87%	13	92%	14	86%



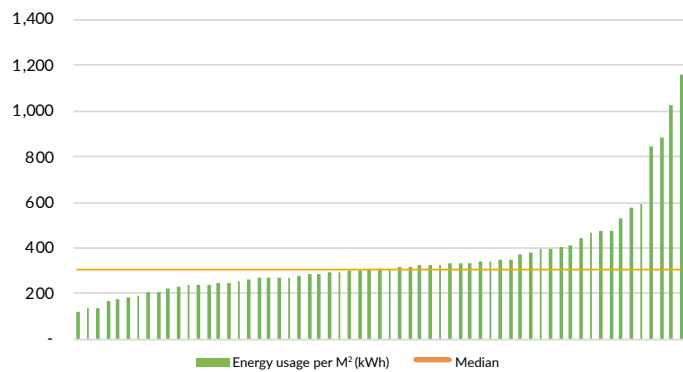
Water Usage Per Occupied Room (L)



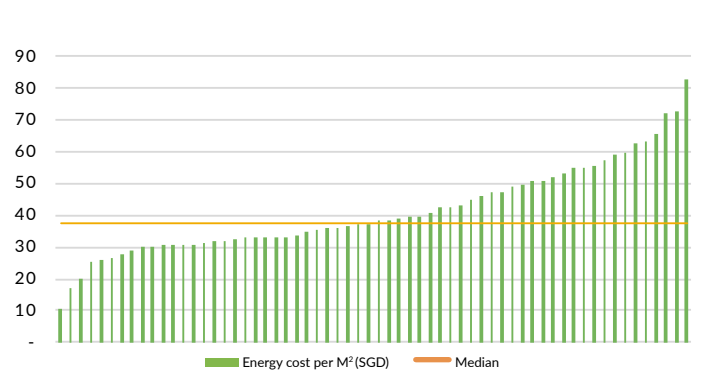
Water Cost Per Occupied Room (SGD)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (SGD)



SINGAPORE		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	61	62	62	68	49	50	46	50	59	62
	High	1,159	254	83	27	6,970	2,271	13	7	257	83
	Mean	354	90	41	10	3,564	852	8	2	130	35
	U. Qtr	380	119	50	13	4,198	1,063	10	2	140	46
	Median	308	70	38	9	3,578	710	8	2	128	29
	L.Qtr	247	47	32	6	2,566	553	6	1	104	19
	Low	118	22	11	3	1,559	277	3	1	51	9
FULL SERVICE	No.	54	55	55	60	44	44	41	44	52	55
	High	1,159	254	83	27	6,970	2,271	13	7	257	83
	Mean	361	97	40	11	3,575	910	8	2	130	37
	U. Qtr	396	396	50	14	4,222	1,086	10	3	139	47
	Median	311	80	37	9	3,599	766	7	2	127	32
	L.Qtr	246	270	32	7	2,518	631	6	1	101	21
	Low	118	29	11	3	1,559	277	3	1	51	13
LIMITED SERVICE	No.	7	7	7	8	5	6	5	6	7	7
	High	374	55	59	9	4,339	616	10	1	156	24
	Mean	298	37	48	5	3,468	421	8	1	128	16
	U. Qtr	332	237	53	7	4,001	496	10	1	144	19
	Median	306	35	50	5	3,542	369	8	1	132	14
	L.Qtr	260	156	43	4	3,333	344	8	1	113	12
	Low	221	22	36	3	2,123	299	5	1	96	9
CITY/ URBAN	No.	52	57	53	61	42	46	38	43	50	57
	High	1,159	254	83	27	6,970	2,271	13	7	257	83
	Mean	367	89	42	10	3,504	868	8	2	132	34
	U. Qtr	396	376	51	13	4,175	1,063	10	2	139	46
	Median	311	67	37	9	3,560	722	7	2	129	28
	L.Qtr	260	246	32	6	2,421	606	6	1	109	19
	Low	118	22	17	3	1,559	277	3	1	51	9

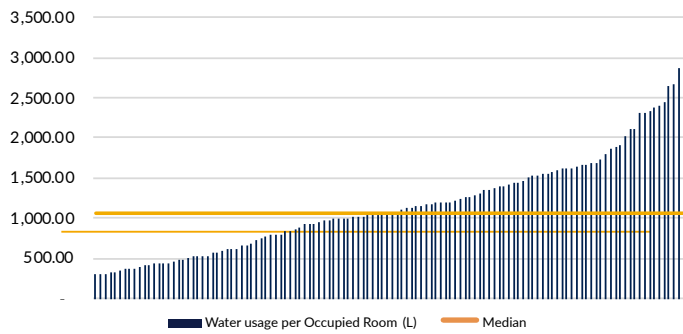
SINGAPORE: Utilities & Carbon Emission Snapshot

SINGAPORE	ALL		FULL SERVICE		LIMITED SERVICE		CI
	No.	Yes	No.	Yes	No.	Yes	No.
Towel Reuse Program?	73	90%	65	89%	8	100%	64
Opt-Out Linen Reuse	59	68%	51	63%	8	100%	53
≥ 75% LED Lighting	75	84%	67	87%	8	63%	66
Variable Frequency Drives	75	87%	67	88%	8	75%	66
Renewable Power Generated?	74	3%	66	3%	8	0%	65
Carbon Offsets/Renewable Energy Cert. Purchase	67	3%	60	2%	7	14%	59
≥ 75% Guestrooms Have Digital Thermostats	67	76%	60	77%	7	71%	59
≥ 75% Guestrooms Have Occupancy Sensors	67	49%	60	52%	7	29%	59
≥ 75% Meeting Rooms Have Digital Thermostats	67	72%	60	72%	7	71%	59
≥ 75% Meeting Rooms Have Occupancy Sensors	66	17%	60	17%	6	17%	59
Energy Sub-metering	75	68%	67	67%	8	75%	66
Energy Tracking	67	99%	60	98%	7	100%	59
Benchmarking Energy among Peers	67	64%	60	65%	7	57%	59
Energy Audit	67	75%	60	77%	7	57%	59
Electric Vehicles	67	21%	60	22%	7	14%	59
Recycling in Common Areas	74	81%	66	83%	8	63%	65
Recycling Bins in Guestrooms	74	23%	66	23%	8	25%	65
≥ 75% Guestrooms with Soap/Shampoo Disp.	73	12%	65	9%	8	38%	64
Waste and Recycling Tracking	74	78%	66	79%	8	75%	65
Soap Donation	73	33%	65	37%	8	0%	64
≥ 75% F&B with Reusable Food Service Ware	73	62%	65	66%	8	25%	64
Food Waste Composting	72	26%	64	30%	8	0%	63
Waste Audit	72	56%	64	56%	8	50%	63
≥ 75% Low-Flow Toilets	73	73%	65	74%	8	63%	64
≥ 75% Efficient Faucets	73	77%	65	78%	8	63%	64
≥ 75% Efficient Showerheads	74	65%	66	65%	8	63%	65
Water Tracking	74	96%	66	95%	8	100%	65
Graywater Reuse	74	11%	66	12%	8	0%	65
Low-flow Pre-Rinse Kitchen Spray Valves	74	62%	66	64%	8	50%	65
Water Sub-Metering	74	85%	66	86%	8	75%	65
Preventive Maintenance program	75	97%	67	97%	8	100%	66
Written Environmental Policy(ies)	75	73%	67	78%	8	38%	66
Green Practices Shared on Website	74	47%	66	48%	8	38%	65
Green Champion	75	67%	67	69%	8	50%	66
Green Team	75	65%	67	69%	8	38%	66
Staff Training	75	64%	67	66%	8	50%	66
Employee Volunteering Opps. During Work Hrs	75	72%	67	73%	8	63%	66
Staff Recognition	74	50%	66	47%	8	75%	65
Comment/Suggestion Process	74	58%	66	58%	8	63%	65
>50% Green Cleaning Products	75	59%	67	61%	8	38%	66
100% non-smoking	75	51%	67	49%	8	63%	66
≥ 75% of non-smoking guestrooms	75	89%	67	88%	8	100%	66
3rd-party Certification	75	49%	67	52%	8	25%	66
Carbon Footprint Measured	75	39%	67	40%	8	25%	66
Local Procurement Policy	75	59%	67	58%	8	63%	66
Green Roof	75	48%	67	48%	8	50%	66
Vegetable Garden	75	20%	67	22%	8	0%	66
Beekeeping	75	4%	67	4%	8	0%	66
Procurement requirements	75	40%	67	40%	8	38%	66

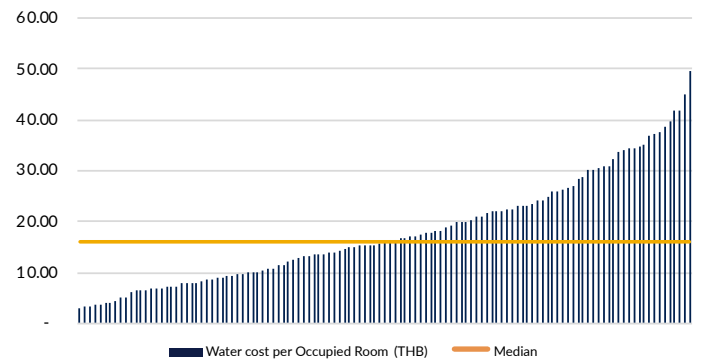
TY/URBAN	
	Yes
	92%
	68%
	83%
	86%
	3%
	0%
	78%
	47%
	71%
	15%
	70%
	98%
	64%
	75%
	20%
	78%
	20%
	13%
	75%
	30%
	61%
	29%
	57%
	69%
	75%
	63%
	95%
	12%
	63%
	85%
	97%
	74%
	45%
	64%
	64%
	61%
	70%
	48%
	55%
	56%
	48%
	89%
	50%
	39%
	58%
	48%
	21%
	5%
	41%



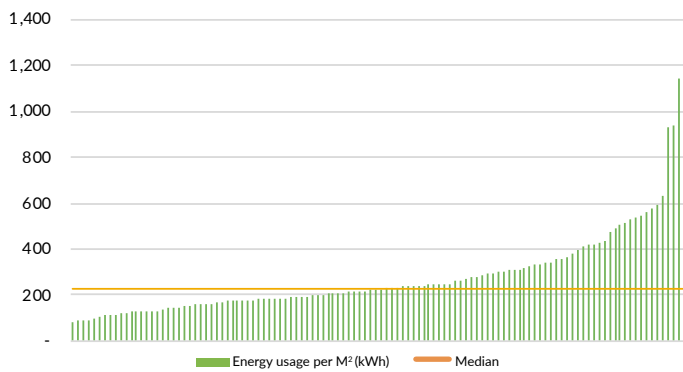
Water Usage Per Occupied Room (L)



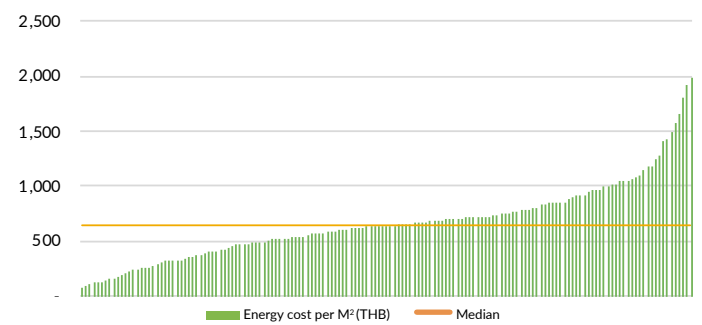
Water Cost Per Occupied Room (THB)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (THB)



THAILAND		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	116	141	155	160	113	122	114	121	116	141
	High	1,145	566	1,991	912	7,967	3,149	224	49	374	187
	Mean	281	131	672	269	2,916	1,163	64	18	119	53
	U. Qtr	327	138	820	321	3,593	1,533	69	24	143	64
	Median	225	92	644	226	2,691	1,064	48	16	108	41
	L.Qtr	171	59	460	169	1,845	656	33	9	77	28
	Low	82	22	83	62	202	305	11	3	36	11
FULL SERVICE	No.	99	121	130	131	95	101	95	97	99	121
	High	1,145	566	1,991	912	7,967	3,149	220	49	374	187
	Mean	299	145	697	297	3,116	1,275	64	19	124	58
	U. Qtr	348	355	-	346	3,771	1,615	80	25	145	74
	Median	237	100	667	272	2,877	1,201	49	17	113	46
	L.Qtr	180	189	-	193	2,159	836	34	12	84	32
	Low	91	25	113	63	247	305	11	3	36	13
LIMITED SERVICE	No.	17	20	25	29	18	21	19	24	17	20
	High	294	115	1,007	246	3,469	1,195	224	35	150	42
	Mean	176	49	539	146	1,861	622	62	13	87	23
	U. Qtr	213	175	628	185	2,690	893	59	19	98	28
	Median	173	45	547	145	1,902	490	47	10	88	21
	L.Qtr	142	120	413	107	1,081	393	31	6	71	18
	Low	82	22	83	62	202	314	13	3	38	11
RESORT	No.	48	68	79	78	50	54	52	47	48	68
	High	1,142	566	1,991	912	7,967	3,149	220	45	374	187
	Mean	283	156	623	275	3,328	1,326	77	19	119	62
	U. Qtr	331	322	788	322	4,033	1,623	105	26	144	79
	Median	212	98	582	237	2,893	1,199	59	15	100	44
	L.Qtr	153	174	329	180	2,180	985	38	9	69	30
	Low	82	24	83	63	810	377	11	3	36	12
CITY/ URBAN	No.	52	57	60	66	49	55	51	60	52	57
	High	593	488	1,577	718	6,864	2,636	224	49	223	130
	Mean	265	107	757	261	2,755	1,049	55	17	118	45
	U. Qtr	311	344	913	337	3,471	1,357	59	22	138	56
	Median	238	88	690	223	2,691	999	47	16	114	39
	L.Qtr	182	165	587	158	2,128	549	34	10	87	26
	Low	106	22	206	62	202	305	14	3	54	11

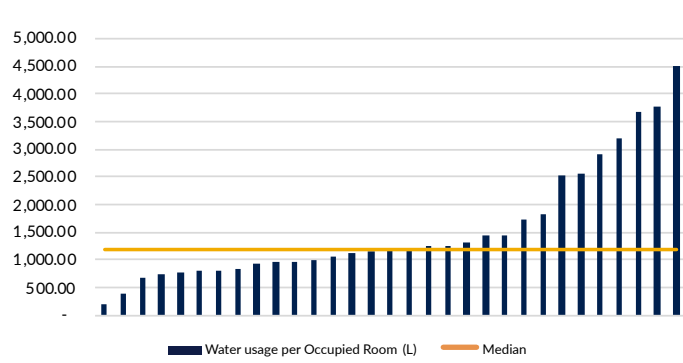
THAILAND: Utilities & Carbon Emission Snapshot

THAILAND	ALL		FULL SERVICE		LIMITED SERVICE		No.
	No.	Yes	No.	Yes	No.	Yes	
Towel Reuse Program?	185	91%	152	91%	33	91%	92
Opt-Out Linen Reuse	163	59%	135	58%	28	64%	81
≥ 75% LED Lighting	188	82%	154	84%	34	74%	93
Variable Frequency Drives	188	59%	154	62%	34	44%	93
Renewable Power Generated?	188	23%	154	24%	34	18%	94
Carbon Offsets/Renewable Energy Cert. Purchase	174	14%	144	13%	30	20%	85
≥ 75% Guestrooms Have Digital Thermostats	179	77%	148	77%	31	74%	91
≥ 75% Guestrooms Have Occupancy Sensors	176	40%	147	43%	29	24%	88
≥ 75% Meeting Rooms Have Digital Thermostats	173	66%	145	70%	28	50%	87
≥ 75% Meeting Rooms Have Occupancy Sensors	171	19%	144	21%	27	11%	87
Energy Sub-metering	185	51%	150	52%	35	46%	90
Energy Tracking	180	100%	148	100%	32	100%	90
Benchmarking Energy among Peers	180	76%	148	79%	32	59%	90
Energy Audit	180	71%	148	72%	32	63%	90
Electric Vehicles	178	25%	148	27%	30	17%	88
Recycling in Common Areas	188	86%	154	87%	34	82%	92
Recycling Bins in Guestrooms	186	30%	152	28%	34	35%	92
≥ 75% Guestrooms with Soap/Shampoo Disp.	184	40%	151	38%	33	48%	91
Waste and Recycling Tracking	185	72%	151	72%	34	71%	91
Soap Donation	185	46%	151	46%	34	44%	91
≥ 75% F&B with Reusable Food Service Ware	185	69%	151	68%	34	74%	91
Food Waste Composting	186	49%	152	49%	34	50%	91
Waste Audit	186	60%	152	61%	34	53%	92
≥ 75% Low-Flow Toilets	184	83%	149	82%	35	86%	92
≥ 75% Efficient Faucets	183	77%	148	78%	35	71%	91
≥ 75% Efficient Showerheads	183	69%	148	71%	35	63%	91
Water Tracking	185	98%	150	99%	35	97%	92
Graywater Reuse	183	47%	150	51%	33	27%	91
Low-flow Pre-Rinse Kitchen Spray Valves	184	63%	150	65%	34	53%	92
Water Sub-Metering	182	49%	149	50%	33	42%	91
Preventive Maintenance program	189	99%	154	100%	35	94%	93
Written Environmental Policy(ies)	188	90%	154	90%	34	91%	92
Green Practices Shared on Website	188	72%	154	72%	34	74%	92
Green Champion	188	80%	154	81%	34	76%	92
Green Team	188	82%	153	84%	35	74%	93
Staff Training	189	83%	154	84%	35	77%	93
Employee Volunteering Opps. During Work Hrs	187	90%	153	90%	34	88%	92
Staff Recognition	187	68%	153	70%	34	59%	92
Comment/Suggestion Process	187	82%	153	83%	34	76%	92
>50% Green Cleaning Products	184	68%	151	70%	33	61%	91
100% non-smoking	187	39%	153	34%	34	62%	92
≥ 75% of non-smoking guestrooms	186	89%	152	88%	34	94%	92
3rd-party Certification	187	57%	152	57%	35	54%	92
Carbon Footprint Measured	188	50%	153	50%	35	49%	93
Local Procurement Policy	186	89%	151	91%	35	80%	92
Green Roof	187	36%	152	37%	35	34%	93
Vegetable Garden	187	17%	152	17%	35	14%	93
Beekeeping	187	4%	152	4%	35	3%	93
Procurement requirements	186	61%	151	64%	35	46%	92

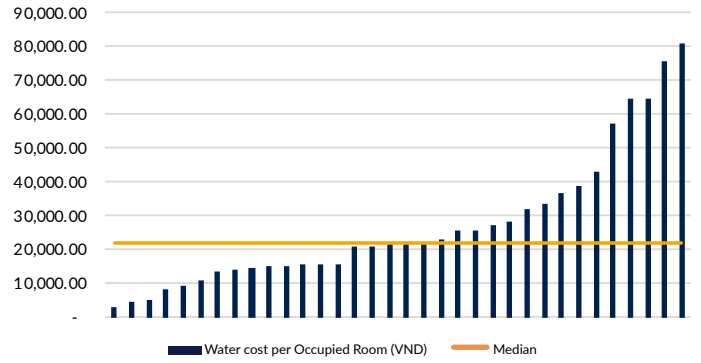
RESORT	CITY/URBAN		CONV/ CONF CENTER		B&B		
	Yes	No.	Yes	No.	Yes	No.	Yes
	92%	72	89%	7	86%	5	100%
	49%	64	70%	6	83%		
	78%	74	86%	7	86%		
	47%	74	73%	7	86%		
	26%	73	22%	7	14%		
	14%	71	13%	6	0%		
	79%	70	76%	5	80%		
	40%	71	39%	5	60%		
	67%	70	70%	5	80%		
	18%	69	23%	5	20%		
	54%	73	49%	7	14%		
	100%	71	100%	6	100%		
	73%	71	79%	6	83%		
	72%	71	68%	6	67%		
	35%	71	11%	6	67%		
	93%	73	81%	7	86%	5	60%
	30%	71	25%	7	29%	5	40%
	46%	71	34%	6	33%	5	40%
	74%	71	72%	7	71%	5	80%
	47%	71	39%	7	71%	5	80%
	73%	71	69%	7	57%	5	60%
	58%	72	40%	7	57%	5	20%
	63%	71	54%	7	71%	5	80%
	84%	70	79%	7	100%		
	81%	70	73%	7	71%		
	63%	70	77%	7	71%		
	97%	71	100%	7	100%		
	59%	70	33%	6	50%	5	60%
	66%	71	61%	6	50%		
	55%	70	46%	6	33%		
	98%	73	100%	7	100%	5	100%
	88%	73	92%	7	86%	5	100%
	70%	73	75%	7	71%	5	100%
	72%	73	93%	7	71%	5	60%
	77%	72	86%	7	100%	5	60%
	76%	73	92%	7	100%	5	60%
	95%	72	85%	7	86%	5	80%
	65%	72	69%	7	71%	5	60%
	83%	72	81%	7	57%	5	100%
	74%	72	68%	6	50%		
	42%	72	32%	7	43%	5	60%
	92%	72	82%	7	100%		
	50%	72	61%	7	71%	5	80%
	54%	72	46%	7	43%	5	40%
	88%	72	92%	7	86%		
	27%	72	49%	7	57%		
	9%	72	22%	7	71%		
	6%	72	1%	7	0%		
	60%	72	64%	7	86%		



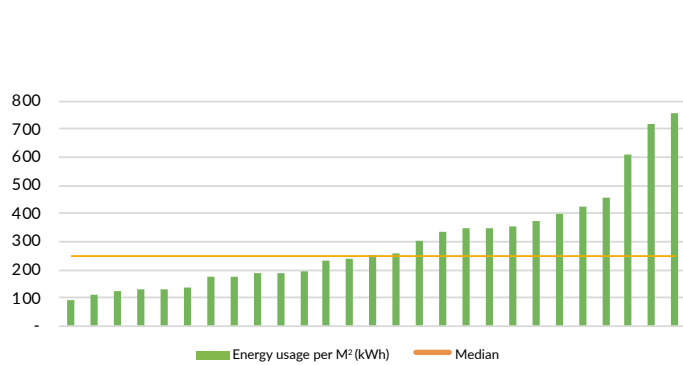
Water Usage Per Occupied Room (L)



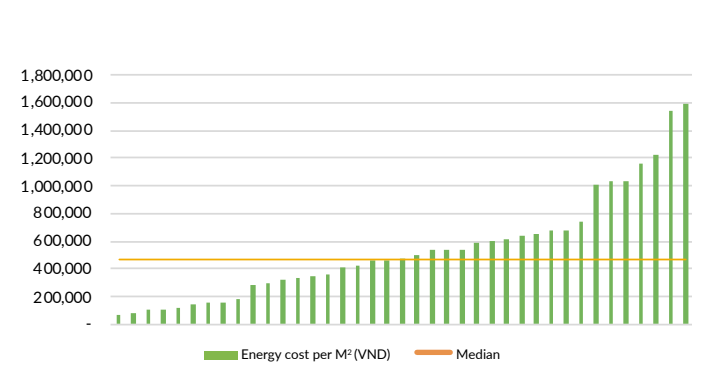
Water Cost Per Occupied Room (VND)



Energy Usage Per Square Metre (kWh)



Energy Cost Per Square Metre (VND)



VIETNAM		ENERGY				WATER				GHG EMISSIONS	
		Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR	Cost PSM	Cost POR	Usage PSM	Usage POR
ALL	No.	27	33	39	35	30	31	32	34	27	29
	High	755	462	1,590,421	414,928	7,325	4,509	115,832	81,205	324	111
	Mean	297	150	544,737	206,528	2,935	1,558	50,214	27,243	127	47
	U. Qtr	363	169	664,140	257,538	3,522	1,783	83,102	33,106	145	55
	Median	251	102	470,333	190,138	2,612	1,181	38,447	22,088	105	44
	L.Qtr	174	70	293,865	140,882	1,706	892	19,572	14,620	71	29
	Low	91	23	72,902	52,292	417	215	2,789	3,320	28	11
FULL SERVICE	No.	24	30	35	31	26	27	28	30	24	26
	High	755	462	1,590,421	414,928	7,325	4,509	115,832	81,205	324	111
	Mean	309	160	538,828	213,162	2,948	1,679	49,455	28,942	131	49
	U. Qtr	377	377	664,140	257,538	3,522	2,175	80,725	35,786	157	57
	Median	253	110	470,333	197,686	2,612	1,191	38,447	22,610	107	45
	L.Qtr	182	182	293,865	143,149	1,870	965	16,792	15,048	83	32
	Low	91	49	72,902	64,733	417	668	2,789	3,320	28	16
RESORT	No.	6	9	15	9	12	11	14	12	6	5
	High	609	462	1,218,049	402,058	6,455	4,509	115,042	81,205	248	110
	Mean	268	277	421,088	259,687	2,689	2,362	40,124	35,271	111	70
	U. Qtr	325	727	534,836	336,675	3,399	3,431	69,847	45,109	134	83
	Median	181	275	345,863	243,671	2,079	2,529	26,239	28,825	82	78
	L.Qtr	173	306	151,801	200,476	1,585	1,253	11,865	15,647	70	48
	Low	91	70	84,386	113,802	417	814	2,789	5,045	37	31
CITY/ URBAN	No.	19	22	22	24	16	18	17	20	19	22
	High	718	373	1,543,528	414,928	5,249	2,925	115,832	64,551	324	111
	Mean	291	107	592,785	193,144	2,903	1,161	59,289	23,662	125	43
	U. Qtr	351	354	681,123	226,752	3,514	1,253	83,198	27,509	140	50
	Median	255	94	540,544	183,057	3,164	1,146	65,260	21,482	109	43
	L.Qtr	191	172	428,642	140,014	2,308	874	31,343	13,646	88	30
	Low	108	23	72,902	52,292	504	215	6,706	3,320	28	11

VIETNAM: Utilities & Carbon Emission Snapshot

VIETNAM	ALL		FULL SERVICE		RESORT		CI
	No.	Yes	No.	Yes	No.	Yes	
Towel Reuse Program?	43	91%	39	92%	15	93%	26
Opt-Out Linen Reuse	37	65%	33	67%	13	77%	22
≥ 75% LED Lighting	42	67%	38	68%	15	67%	25
Variable Frequency Drives	43	84%	39	82%	15	80%	26
Renewable Power Generated?	43	33%	39	33%	15	33%	26
Carbon Offsets/Renewable Energy Cert. Purchase	41	12%	37	8%	15	0%	25
≥ 75% Guestrooms Have Digital Thermostats	44	84%	39	85%	15	87%	26
≥ 75% Guestrooms Have Occupancy Sensors	44	43%	39	38%	15	40%	26
≥ 75% Meeting Rooms Have Digital Thermostats	44	77%	39	77%	15	87%	26
≥ 75% Meeting Rooms Have Occupancy Sensors	40	38%	36	31%	14	29%	25
Energy Sub-metering	43	67%	39	69%	15	80%	26
Energy Tracking	41	100%	37	100%	15	100%	25
Benchmarking Energy among Peers	41	71%	37	70%	15	67%	25
Energy Audit	41	85%	37	84%	15	87%	25
Electric Vehicles	41	24%	37	24%	15	47%	25
Recycling in Common Areas	43	70%	39	69%	15	73%	26
Recycling Bins in Guestrooms	42	40%	38	39%	15	27%	25
≥ 75% Guestrooms with Soap/Shampoo Disp.	41	32%	37	35%	15	67%	24
Waste and Recycling Tracking	41	59%	38	55%	15	67%	24
Soap Donation	43	63%	39	62%	15	40%	26
≥ 75% F&B with Reusable Food Service Ware	40	58%	36	58%	15	73%	23
Food Waste Composting	41	29%	37	27%	15	40%	24
Waste Audit	42	48%	38	45%	15	47%	25
≥ 75% Low-Flow Toilets	41	80%	37	84%	14	79%	25
≥ 75% Efficient Faucets	41	63%	37	65%	14	43%	25
≥ 75% Efficient Showerheads	41	63%	37	68%	14	57%	25
Water Tracking	43	100%	39	100%	15	100%	26
Graywater Reuse	42	31%	38	32%	15	60%	25
Low-flow Pre-Rinse Kitchen Spray Valves	42	57%	38	53%	15	73%	25
Water Sub-Metering	42	48%	38	47%	14	79%	26
Preventive Maintenance program	43	93%	39	92%	15	100%	26
Written Environmental Policy(ies)	43	88%	39	87%	15	100%	26
Green Practices Shared on Website	41	66%	37	65%	15	53%	24
Green Champion	42	79%	38	79%	15	67%	25
Green Team	42	71%	38	74%	15	67%	25
Staff Training	42	86%	38	89%	15	87%	25
Employee Volunteering Opps. During Work Hrs	42	95%	38	95%	15	100%	25
Staff Recognition	42	67%	38	66%	15	73%	25
Comment/Suggestion Process	42	62%	38	58%	15	53%	25
>50% Green Cleaning Products	38	76%	34	74%	13	77%	23
100% non-smoking	42	40%	38	39%	15	40%	25
≥ 75% of non-smoking guestrooms	43	81%	39	82%	15	80%	26
3rd-party Certification	42	55%	38	58%	15	60%	25
Carbon Footprint Measured	42	50%	38	47%	15	40%	25
Local Procurement Policy	41	93%	37	92%	15	87%	24
Green Roof	42	43%	38	42%	15	47%	25
Vegetable Garden	42	19%	38	16%	15	33%	25
Beekeeping	41	7%	37	5%	15	0%	24
Procurement requirements	41	56%	37	54%	15	73%	24

TY/URBAN	
	Yes
	88%
	59%
	64%
	85%
	35%
	20%
	88%
	50%
	77%
	40%
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	72%
	84%
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	8%
	46%



ROBERT HECKER
Managing Director
Horwath HTL Asia Pacific
rhecker@horwathhtl.com

Robert Hecker manages the Asia regional arm of Horwath HTL with offices in Tokyo, Beijing, Shanghai, Hong Kong, Kuala Lumpur, Singapore and Jakarta.

Since his arrival in the region with Horwath in 1988, he has developed an extensive background and expertise in the region's developing hotel and tourism industries through his direct involvement in the planning and analysis of more than 500 projects located throughout the Asia Pacific Region.

Overall, he has 35 years of experience including hotel operations with Pacific Plaza Hotels in California and conducting market and financial analyses for hotels, resorts, cruise ships, convention centers, conference centers and restaurants while with Laventhol and Horwath in San Francisco.

Robert is also a frequent speaker at industry related conferences around the region and has published numerous research articles in regional industry publications.

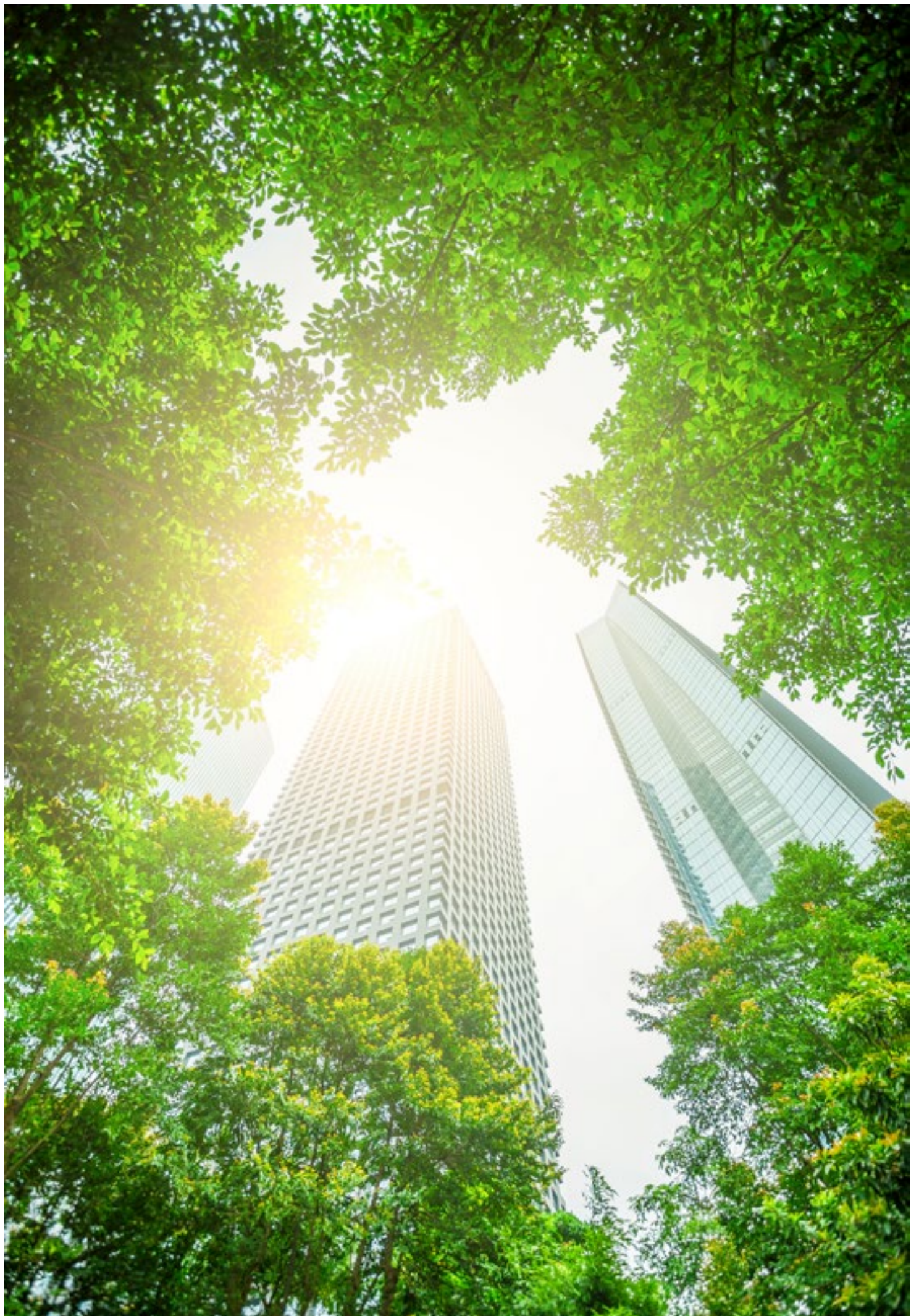


ERIC RICAURTE
Founder / CEO
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Eric is the founder of Greenview, an international consultancy helping hospitality and tourism catalyze innovation and best practice through strategy, programs, data management, and reporting. Prior to founding Greenview, Eric specialized in the operations and development of nature-based lodges, theme parks and attractions.

With 20 years of hands-on experience, Eric is a frequent industry speaker, organizer, and researcher in the topic of sustainability. His notable industry work includes working as a technical consultant for the Hotel Carbon Measurement Initiative and launching the Cornell Hotel Sustainability Benchmarking Index, Green Lodging Trends Report, Green Venue Report, Hotel Footprinting Tool, and Hotel Owners for Tomorrow Coalition. Eric has consulted globally for hotel properties; hotel companies; cruise lines; tour operators, attractions and mixed-use complexes; citywide event organizers; DMOs; and industry associations including the AHLA, WTTC, and UNWTO.

Eric earned a Bachelor of Science from the Cornell University School of Hotel Administration and a Master of Science in Tourism & Travel Management from New York University. He has served as a researcher at the Cornell University Center for Hospitality Research and adjunct instructor at the New York University Tisch Center for Hospitality and Tourism.





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