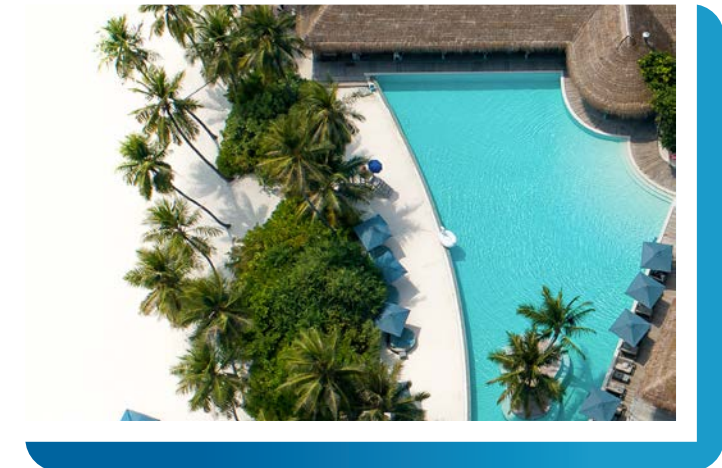
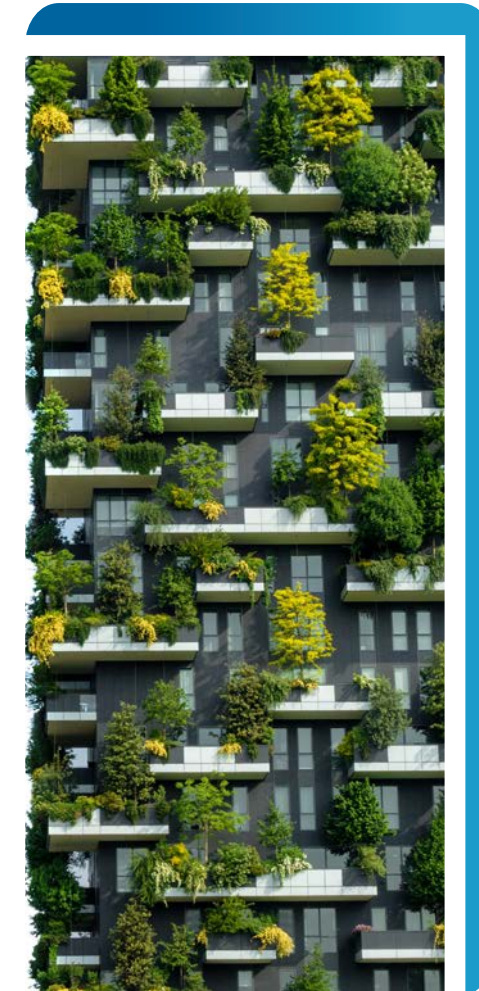


NET ZERO METHODOLOGY FOR HOTELS

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APPENDIX C

SETTING HOTEL NET-ZERO
BOUNDARIES WITHIN THE
UNIVERSE OF SCOPE 1, 2 AND 3
EMISSION SCOPES



**GREENVIEW**

APPENDIX C: SETTING HOTEL NET-ZERO BOUNDARIES WITHIN THE UNIVERSE OF SCOPE 1, 2 AND 3 EMISSION SCOPES

A hotel and its operation will have hundreds of potential emissions sources. These sources may transcend scopes and the ability of the hotel's owner or operator to exert influence on them, and vary in the ability to be accurately quantified at present. **This methodology provides a classification system used to arrive at default categories that at an industry level will represent over 90% of typical Scope 3 emissions within a reasonable boundary.** In doing so, the intention is to enable the hotel and wider travel industry to focus efforts on collectively pursuing decarbonization actions for the most relevant and significant sources of emissions rather than inventorying, evaluating, and adjusting sources and related targets over time.

To arrive at the default boundary, GHG emissions of a hotel and hotel stay were analyzed and classified according to the following steps:

- 1 Prioritize the sources of emissions** in terms of their relative significance to a hotel's footprint, how common they are across the hotel industry, and the degree to which stakeholders will expect the emissions to be addressed, in order to arrive at the common set of emissions sources for a hotel to include in net-zero planning.
- 2 Identify cases where the sources of emissions may vary** within a particular hotel type or region in relative significance, as well as whether the same source of emissions may change in scope as Scope 1 & 2 vs. Scope 3.
- 3 Evaluate the common sources of Scope 3 in relation to the role of owner or operator** (and subsequently franchisor) to identify significant differences in the share of control or influence that one role may have in comparison to the other.
- 4 Evaluate the degree to which the sources of emissions can be credibly and consistently quantified** at present based on availability of default data and coefficients, methodology, and emission factors.

RESOURCES TO INFORM CLASSIFICATION PROCESS

This analysis was conducted based on the following resources, then vetted by the industry advisory group for feedback and input:

- Race To Zero Process Criteria Starting Line and Interpretation Guide
- Existing research on materiality of specific sources
- GHG Protocol GHG Emissions Calculation Tool
- Hotel Carbon Measurement Initiative (HCMI) methodology
- The Global Sustainable Tourism Council (GSTC) Industry criteria
- Scope 3 analysis and categorization of the SBTi and CDP
- Previous internal analysis performed by Greenview for hotel client work and the industrywide calculation of hotel carbon emissions for the CHSB data set
- Interpretation based on hotel guest perception, interaction, and/or experience
- Interpretation based on controllability of owner or operator and relation to overall business model
- Public disclosure of third-party ISO 14064-assured GHG inventories for hotel chains
- Relation of the source among hotel entity and the general responsibility of the entity within the value chain that generates the emissions.



1. PRIORITIZING EMISSIONS SOURCES

To prioritize the sources of emissions, the following three variables (Table C.1) were used from the perspective of a hotel, regardless of their typical classification of scope, their ability to vary, or differences in relation to the owner/operator/franchisor portfolios.

▼ **Table C.1 Variables for Emission Sources Classification**

VARIABLE	ANALYSIS	ORDINAL SCALE
Prevalence	Classification based on how common the sources are across the global hotel supply.	Low (1) Medium (2) High (3)
Significance	Classification based on the relative significance of these emissions when they are present in a hotel's inventory.	
Stakeholder Expectations	Classification based on the expectations of guests, travel buyers, investors, and other stakeholders for a hotel to address these emissions	

The results are as follows in Table C.2:

▼ **Table C.2 Emissions Sources Classification Results**

SOURCE	SIGNIFICANCE	PREVALENCE	STAKEHOLDER EXPECTATIONS	TOTAL	CLASSIFICATION
Combustion of primary fuels onsite	3	3	3	9	VERY HIGH
Purchased electricity	3	3	3	9	VERY HIGH
Upstream emissions from ongoing consumable goods	3	3	3	9	VERY HIGH
Emissions from waste disposal and treatment	2	3	3	8	HIGH
Employee commuting	2	3	3	8	HIGH
Embodied carbon emissions of the building and FF&E	3	3	2	8	HIGH
Purchased heating and cooling energy (not generated onsite)	3	1	3	7	HIGH
Emissions from outsourced laundry wash	2	2	3	7	HIGH
Transportation of guests arranged by the hotel within the destination	1	2	3	6	MEDIUM
Transmission & Distribution losses	2	3	1	6	MEDIUM
Business Travel	1	2	3	6	MEDIUM
Fugitive Emissions	1	3	1	5	LOW
Transportation of guests arranged by the hotel to/from the destination	3	1	1	5	LOW

2. IDENTIFYING POTENTIAL VARIANCES

The following potential variances (Table C.3) in significance and scope categorization for each emissions source were then noted:

▼ Table C.3 Potential Variances of Emission Sources

SOURCE OF EMISSIONS	POTENTIAL VARIATION
Combustion of fuels onsite	<ul style="list-style-type: none"> ■ A hotel may have several different sources of stationary fuels combustion encompassing secondary uses, such as space heaters or gas-fired fire pits, which are not commonly significant, but may be so in a particular hotel. ■ Hotels also commonly have a backup emergency generator of electricity which will need to be tested routinely, and have instances where it constitutes a significant source. ■ Other sources of combustion for minor equipment, such as lawnmowers or leaf blowers, are not technically “stationary” combustion, but have never been found to constitute a significant source of emissions. ■ In the case of a hotel with combined heat and power (CHP) or cogeneration, some configurations exist where the hotel procures the natural gas but does not combust it, in which case it is categorized Scope 1. If the onsite system is owned and operated by a separate entity which then sells the electricity to the hotel, it would be categorized as Scope 2. ■ In the case of a hotel with a fuel cell powered by natural gas, the natural gas consumed is consumed but not combusted. If the fuel cell is owned and operated by a third party then the source is categorized as Scope 2 for the purchased electricity (and in some cases purchased waste heating).
Upstream emissions from ongoing consumable goods	<ul style="list-style-type: none"> ■ Purchase of ongoing consumables for a typical hotel can number in the hundreds, and even thousands of items. While a common practice in Scope 3 evaluation is to bucket all into basic categories and estimate emissions based on spend, the upstream carbon emissions and overall impact on climate change associated with each item will vary widely. For example, \$1 of beef procured will have much higher carbon emissions and need to decarbonize in comparison to \$1 of apples.
Emissions from waste disposal and treatment	<ul style="list-style-type: none"> ■ Some hotels, such as island resorts, may treat waste onsite, categorized as Scope 1.
Purchased heating and cooling energy (not generated onsite)	<ul style="list-style-type: none"> ■ This source of emissions is one of the most uncommon sources when taken as a percentage of hotels globally. However, for hotels within a specific market with similar energy sources it will be highly prevalent. For hotels that use purchased heating and cooling as a source, it is a significant source of emissions.
Emissions from out-sourced laundry wash	<ul style="list-style-type: none"> ■ It is common for hotels to outsource laundry wash to offsite facilities not owned or operated by the same entity, categorized as Scope 3.
Transportation of guests arranged by the hotel within the destination	<ul style="list-style-type: none"> ■ Hotels may own/operate the vehicles themselves (Scope 1), outsource to a third party (Scope 3), or a combination of both. ■ Significance varies widely by hotel. For some hotels such as those with airport shuttles, the source may be significant. For limited-service urban hotels, very little if any transportation is arranged by the hotel directly. ■ In many cases of meetings and events, hotel guests staying on a room block for a convention or other event will have ground transportation coordinated by a separate entity such as an event organizer or a destination management company (DMC).
Transportation of guests arranged by the hotel to/from the destination	<ul style="list-style-type: none"> ■ In some cases, hotels may organize charter planes, private jets, boats, helicopters, or other means required to transport the guest to the location directly which may be owned/operated by the hotel and categorized as Scope 1. Integrated tour operators will have transport as part of the package offering and also be Scope 1. By and large, however, hotels do not arrange transportation for guests to and from the place of origin to the hotel.
Transmission & Distribution losses	<ul style="list-style-type: none"> ■ While T&D losses are commonly calculated with available emissions sources for purchased electricity, the T&D losses associated with purchased heating and cooling are not uniformly accounted for in terms of whether they are included in emissions factors, and rarely accounted for separately in hotel company inventories.
Business Travel	<ul style="list-style-type: none"> ■ Company employees on business travel may stay at hotels within the same company while on business travel to other destinations, in which case the Scope 3 emissions are already claimed as part of the company’s Scope 1 & 2, or franchised emissions Scope 3.
Fugitive Emissions	<ul style="list-style-type: none"> ■ Fugitive emissions may be significant in some hotel types or instances of major leakage.

3. IDENTIFYING THE SHARE OF INFLUENCE

Then applying the share of influence for Scope 3 sources among owner and operator, the following distinctions (Table C.4) were noted:

▼ **Table C.4 Control or Influence Distinctions of Emission Sources**

SOURCE OF EMISSIONS	CONTROL OR INFLUENCE DISTINCTIONS
Upstream emissions from ongoing consumable goods	<ul style="list-style-type: none"> Operator distinction of purchased ongoing consumables such as food and beverage and other Operating Supplies & Equipment (OS&E) for quantities, types, and sources.
Emissions from waste disposal and treatment	<ul style="list-style-type: none"> Operator distinction for quantity of waste disposed, disposal method, and waste composition due to upstream purchases.
Employee commuting	<ul style="list-style-type: none"> Operator distinction for employee commuting of hotel property staff, though each entity has its own company employees.
Emissions from outsourced laundry wash	<ul style="list-style-type: none"> Operator distinction for quantity and vendor facility used in outsourced laundry wash
Embodied carbon emissions of the building and FF&E	<ul style="list-style-type: none"> Owner distinction for the influence and budgeting for embodied carbon and the financial ownership of the building asset, in particular when the operator of the hotel has not been chosen until further along in the process of building the hotel.
Transportation of guests arranged by the hotel within the destination	<ul style="list-style-type: none"> Operator distinction for choice of vendor, vehicles, and services offered in ongoing operation.
Transportation of guests arranged by the hotel to/from the destination	<ul style="list-style-type: none"> With the exception of the cases noted in the variations above, neither the owner nor the operator has significant control or influence of the emissions sources or location of the guest origin.
Business Travel	<ul style="list-style-type: none"> Both owner and operator will have their own respective sources of business travel for their company employees.

4. EVALUATING DEGREE OF DIFFICULTY IN QUANTIFYING EMISSIONS

When evaluating the degree of difficulty in quantifying the emissions of the categories due to lack of consistent or credible emissions factors, or a large variation in the results based on available approaches used, the sources were classified as follows in Table C.5:

▼ **Table C.5 Degree of Difficulty of Emission Sources**

SOURCE OF EMISSIONS	DEGREE OF DIFFICULTY
Combustion of fuels onsite	LOW
Upstream emissions from ongoing consumable goods	HIGH
Emissions from waste disposal and treatment	HIGH
Employee commuting	MEDIUM
Purchased heating and cooling energy (not generated onsite)	LOW
Emissions from outsourced laundry wash	MEDIUM
Embodied carbon emissions of the building and FF&E	HIGH
Transportation of guests arranged by the hotel within the destination	HIGH
Transportation of guests arranged by the hotel to/from the destination	MEDIUM
Transmission & Distribution losses	LOW
Business Travel	LOW
Fugitive Emissions	MEDIUM

5. DEFAULT HIERARCHY FOR EMISSIONS SOURCES OF A HOTEL

Based on the analysis above, a default hierarchy for the sources of emissions of a hotel resulted as follows (Table C.6):

▼ **Table C.6** Default Hierarchy for Emissions Sources of a Hotel

CLASSIFICATION	APPROACH	EXAMPLES
VERY HIGH	<ul style="list-style-type: none"> ■ Sources of emissions should be quantified, striving for granular level of activity data and actively pursuing efforts to improve calculation resources and methodologies when needed ■ Quantifiable targets should be set, and decarbonization should be prioritized first within interim milestones ■ Processes and engagement should be prioritized as soon as possible 	<ul style="list-style-type: none"> ■ Stationary combustion of primary fuels ■ Purchased electricity ■ Upstream emissions from purchased F&B and OS&E
HIGH	<ul style="list-style-type: none"> ■ Sources of emissions should be quantified based on actual data, particularly if part of the hotel's Scope 1 & 2 emissions boundary ■ Efforts should be pursued to improve calculation resources and methodologies when needed in order to arrive at quantifiable targets ■ Quantifiable targets should be set once sound calculation methods and resources are available, and decarbonization approaches made more apparent through engagement targets ■ Processes and engagement should be prioritized when planning/engagement is available, within interim milestones as early possible 	<ul style="list-style-type: none"> ■ Purchased heating and cooling ■ Laundry wash (when outsourced) ■ Emissions from waste disposal and treatment ■ Embodied carbon emissions of the building and FF&E ■ Transportation of guests arranged by the hotel within the destination (when present) ■ Employee commuting
MEDIUM	<ul style="list-style-type: none"> ■ Sources should be quantified but may be estimated using default data ■ General processes and engagement should be developed within reason ■ Targets should follow a decarbonization pathway by 2050 	<ul style="list-style-type: none"> ■ Transmission & Distribution losses from electric power distribution to the hotel ■ Business travel
LOW	<ul style="list-style-type: none"> ■ Sources may be excluded from calculated boundary ■ When significant for a particular hotel or company and included, quantification can be done using estimated or proxy data ■ General processes and engagement should be developed within reason ■ If present by 2040, targets should include that emissions be offset as residual emissions when related to the building, or by 2050 for others 	<ul style="list-style-type: none"> ■ Fugitive emissions from refrigerant leakages ■ Other combustion of fuels when used for secondary purposes and insignificant in comparison to the rest of the hotel's Scope 1 & 2 emissions ■ Transportation of guests arranged by the hotel to/from the destination
OUT OF BOUNDS	<ul style="list-style-type: none"> ■ Others within the universe of potential sources that do not meet thresholds in the analysis of prevalence, significance, control/influence, and availability of credible and consistent emission factors 	<ul style="list-style-type: none"> ■ See Universe of Hotel GHG Emissions Sources below

ADDRESSING SCOPE 3 FOR A FRANCHISOR OF A PROPERTY

In the case of a franchised hotel, the hotel's franchisor should include the hotel's Scope 1 & 2 emissions as outlined in column 1 of Table 2 within its net-zero boundary (categorized as the company's Scope 3), and set a pathway for decarbonizing those emissions. The Scope 3 emissions of the hotel's ownership and operation, as outlined in Table 2 are essentially "Scope 3 of a Scope 3" which this methodology seeks to avoid as part of the value chain approach to hotel stays further outlined in Section 5.

The additional corporate-level activities and Scope 1 & 2 emissions sources outlined in Table 2 should be accounted for, much of which will also cover activities relating to its franchised portfolio.

APPENDIX C

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EXAMPLE OF ADDRESSING SCOPE 3 FOR A FRANCHISED HOTEL
Mercure Glasgow City: owned by Alternative Income REIT plc, managed by Jupiter Hotels under a franchise agreement with Accor (Mercure brand).

SCOPE	SOURCE	CLASS	OWNER (ALTERNATIVE INCOME REIT)	OPERATOR (JUPITER HOTELS)	FRANCHISOR (ACCOR)
1	Combustion of primary fuels onsite	VERY HIGH	✓	✓	Scope 3
2	Purchased electricity	VERY HIGH	✓	✓	Scope 3
3	Upstream emissions from ongoing consumable F&B ¹ and OS&E ²	VERY HIGH	✗ unless reporting on asset-level	✓	✗
2	Purchased heating and cooling	HIGH	✓	✓	Scope 3
3	Emissions from outsourced laundry wash	HIGH	✗ unless reporting on asset-level	✓	✗
3	Emissions from downstream waste disposal	HIGH	✗ unless reporting on asset-level	✓	✗
3	Embodied carbon emissions of the building, land use change, and upstream FF&E ³	HIGH	✓	✗	✗
3	Employee commuting	HIGH	✓ (only their employees)	✓ (only their employees)	✗

1 Food & Beverage
2 Operating Supplies & Equipment
3 Furniture, fixtures & equipment

SCOPE	SOURCE	CLASS	OWNER (ALTERNATIVE INCOME REIT)	OPERATOR (JUPITER HOTELS)	FRANCHISOR (ACCOR)
3	Transportation of guests arranged by the hotel within the destination	MEDIUM	✗ unless reporting on asset-level	✓	✗
3	T&D ⁴ losses from purchased electricity	MEDIUM	✓	✓	✗
3	Business travel	MEDIUM	✓ (company business travel only)	✓ (company business travel only)	✗
1	Fugitive emissions from refrigerant leakages	LOW	✗ (unless deemed significant)	✗ (unless deemed significant)	Potential Scope 3
1	Other combustion of fuels	LOW	✗ (unless deemed significant)	✗ (unless deemed significant)	Potential Scope 3
1	Transportation of guests arranged by the hotel to/ from the destination	LOW	✗ (unless deemed significant)	✗ (unless deemed significant)	Potential Scope 3

In the case of a branded residence, where the hotel chain serves in a similar role to a franchisor but many of the operational and investment decisions are under the control of the tenant as described in section 2.2, the branded residence footprint should be evaluated to assess the level of significance, control and influence, and complexity of the data to be obtained, and be addressed in the boundary accordingly for quantified and/or planning and engagement targets. Future iterations of this methodology may further address branded residences more specifically once further analysis, best practice, and guidance are available to incorporate.

In the case of a franchised or licensed use of the hotel's name for other products and services, similarly the company *should* evaluate the product or service, the relationship, and relevant emissions, to decide whether they should be included in the boundary for quantified and/or planning and engagement targets.

4 Transition & Distribution Losses

SCOPE 3 EMBODIED CARBON EMISSIONS

Of the emissions sources in Table 2, the least commonly disclosed (and the least commonly understood) by hotels are the embodied carbon and the upstream emissions from building and furnishing the hotel. **Increasingly, these emissions are being addressed in climate action as more awareness is built around how specific materials are large sources of global emissions, such as concrete, steel, and beef.** The hotel industry will not be able to avoid discussion of the emissions of building a hotel and visible products such as plastic bottles.

However, resources are currently limited to enable sound quantification of these. While the initiatives, data and calculation approach for embodied carbon of buildings are becoming more common, specific figures and methods for a hotel asset class are rare. Hotels differ significantly from other types of commercial buildings because the “fit-out” of the hotel is done almost all at once and integrated into the hotel’s initial development, rather than this being offloaded to individual tenants from entirely different sectors unrelated to the building’s business model. Thousands (yes, **thousands**) of different products may be sourced in the building materials, durable goods, and ongoing consumables of a single hotel.

Two main challenges inhibit sound calculation and quantitative planning for decarbonization in these areas. First, it is unreasonable to expect that a single hotel would do a Scope 3 evaluation for each individual item procured in comparison to its overall emissions, and then compounded at a portfolio level. Also, hotels may not necessarily have access to all the specifications of materials and processes used in building the hotel. However, estimating emissions based on a generic amount of spend per macro category uniformly for every hotel in the world is also an unreasonable exercise. Better default data, analysis, and classification of level of significance are needed to aid in this category.

Second, accounting for embodied carbon of the building and durable goods is not a symmetrical exercise to annual emissions reporting of the “use phase” of the building. Just as a hotel’s capital equipment and other durable goods are amortized over their useful life and hotel real estate may be renovated, bought, or sold, appropriate methodology should be developed for addressing the embodied carbon of an asset with a decades-long useful life, renovation, and ownership transfer.

This methodology seeks to address these upstream emissions from building the hotel (including land use change and construction operations) and its procurement, but allows for time for the hotel industry to evolve its methodology and identification of the most important products and processes to include in the boundary and how to account for them, and the respective industries building hotels and manufacturing the products to evolve their own data and decarbonization approaches. At the latest, the significant sources of emissions should be quantified by 2030, with some initiating by 2025 where readily available, in order to determine credible milestones through 2050. For further information on embodied carbon, see Appendix M.

6. UNIVERSE OF HOTEL GHG EMISSIONS SOURCES

▼ **Table C.7** Examples and Default Classification for Emission Sources by Scope

SOURCE	EXAMPLES	DEFAULT CLASSIFICATION
SCOPE 1		
Fuels burned for primary heating and cooling the building in stationary combustion	Boiler	VERY HIGH
Emissions from onsite waste treatment facilities	Facilities within hotel’s operational or financial control	HIGH
Fuels burned for gas-fired equipment in cooking	Kitchen ovens and stoves	LOW

SOURCE	EXAMPLES	DEFAULT CLASSIFICATION
SCOPE 1 continued		
Stationary combustion of fuels burned for other smaller equipment	Barbecue pits, Sterno chafing fuel, tandoors, firewood	LOW
Stationary combustion of fuels burned for generation of electricity or cogeneration as a primary fuel source	Combined heat and power equipment Natural gas fuel cell	LOW
Stationary combustion of fuels in other areas for heating	Space heaters, fireplaces	LOW
Stationary combustion of fuels to power a backup generator for testing and emergency use	Backup generator	LOW
Mobile combustion of fuel for powering vehicles owned/operated by the hotel	Shuttle van, hotel-owned private car, boat, ship, gas-powered cart, helicopter, airplanes owned by the hotel	LOW
Mobile combustion of fuels for other equipment	Lawnmowers, leaf blowers, mulchers, forklifts	LOW
Use and emptying of fire extinguishers	Fire extinguisher	LOW
Use of CO2 in food and beverage	CO2 cartridge in carbonating beverages	LOW
Fugitive emissions from refrigerant leakage in HVAC	Refrigerants in chillers, kitchen refrigerators, mini bars	LOW
SCOPE 2		
Purchased electricity	Electricity purchased from a utility	VERY HIGH
Purchased cooling	Purchased chilled water from a utility or another facility (for cooling, not consumption)	HIGH
Purchased heating	Purchased exhaust heat from a fuel cell or other external waste heat recovery source, purchased municipal steam, purchased municipal heat, purchased municipal hot water for heating purposes only	HIGH
SCOPE 3		
Upstream lifecycle emissions relating to embodied carbon of the building and its capital equipment	Building materials such concrete, steel, sand, masonry, and wood. Large capital equipment such as HVAC equipment (e.g. boilers and chillers), elevators, escalators, plumbing, fire protection system (e.g. smoke detectors, sprinkler system), electrical system and security system.	HIGH
Upstream lifecycle emissions (materials extraction, manufacturing/processing, transportation to hotel) of fit-out FF&E procured by the hotel owner or operator	Outlet safety plugs, surge protectors, water fountain/ features and other decorative items with water, pool and other outdoor furniture, outdoor lighting, elevator lobby furniture, elevator cab finishes, fireplace, box spring/ box spring cover/ headboard and other bed related furniture, curtains/ curtain holdbacks/ curtain rods/ curtain stack backs/ drapery batons/ drapery liners/ drapes/ drapery valence/ mini blinds/ roller shades/ roman shades and other curtains and drapery, framed dressing mirror/ lighted mirror/ makeup/ backlit mirrors and various styles of mirrors, towel racks, toilet/ urinals, faucets and connections, closet shelf unit, hooks, coat, iron, ironing board holder and cover, desk, door viewer, sofa, dresser/ credenza/ nightstand and other chest like furniture, floor/ end table lamps/ night light/ bracket lamp/ ceiling mounted lighting/ vanity lighting and other lighting.	PRESUMED "VERY HIGH" AS AN OVERALL CATEGORY, TO BE FURTHER CATEGORIZED & PRIORITIZED FURTHER GRANULARITY FOR FINAL DETERMINATION BY 2025 OR 2030
Upstream lifecycle emissions (materials extraction, manufacturing/processing, transportation to hotel) of other durable goods procured by the hotel owner or operator (either FF&E or OS&E) with very low replacement rates	Bar blender, beaters, food processor, desk chair/ dining chair / lounge chair/ banquet chair/ bar stools/ executive chair/ ottoman and other indoor furniture for sitting, side/ coffee/ dining/ nesting/ communal/ chef's/ meeting/ conference tables and other indoor tables , air deodorizing system, carpet cleaning machines, portable steam cleaners, vacuum cleaner, CPR kits/ defibrillator/ fire extinguisher and chemicals/ emergency exit instruction card/ life preserver/ pool safety equipment and other emergency equipment and supplies, CCTV, laptop and desktop computers, Walkie Talkies, camera (video, film) and accessories, projectors, timeclocks, ice machine, refrigerator/ freezer, laundry equipment (washer, dryer, folder), adding machine, check writer machines, ball washers, banquet/conference/catering recoverable supplies, fitness class supplies, gym equipment, playpens, mattresses of all sizes, inflatable beds, rollaway beds, bathroom scale, iron, ironing board, portable bar, clock radios for guestrooms, clocks for guestrooms, coffee machines, desk lamp, DVD players, Blu-ray, Apple TV for guestrooms, hair dryers, humidifier, microwave oven, portable fans and ac, radios, refrigerators, speakers, stereo, television remote, TV and mount.	

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SOURCE	EXAMPLES	DEFAULT CLASSIFICATION
SCOPE 3 continued		
<p>Upstream lifecycle emissions (materials extraction, manufacturing/processing, transportation to hotel) of other OS&E durable goods procured by the operator with less typical replacement rates greater than one year</p>	<p>Tumblers, baking/broiling/ frying and other pans, bar shaker/ bottle openers/ bottle stoppers/ bottle warmers/ corkscrews and other beverage tools, glass racks, pocket thermometer, table pad, fireplace screen, fireplace tools, carts (housekeeper and laundry), wet floor signs, vacuum cleaner accessories, pool maintenance equipment, garbage cans, recycle bins, urinal baskets, electric bulbs – all, sheers, screwdriver/wrench/hammer and other maintenance tools, artifacts, artwork/ frames and other framed decorations, bell stand, braille signs, candlesticks, flags, smoking urn sand stamp, outdoor lighting, elevator cab finishes, fireplace, vases, key chain coils and reels, key lock box, key machine, keys for safe deposit box/ lock, adapter plug, electrical, av cables, computer keyboards, computer monitors, computer mouse, CPU stands, ethernet cables, extension cords, keyboard drawers, mouse pad, telephone accessories (e.g. cords and face plate), telephone headsets, telephone directory covers and holders, data processing supplies, fax machine supplies and accessories, machine stands, cash register ribbons, calculators, clipboards, hole punch, label maker, mail bags, pencil sharpener, printer/ copier, rubber stamps, rulers, scissors, staplers, tape holders, cart name plates, easels, books, in-room guest reading, cribs, quilt rack, quilt rack, showerhead, closet rack, closet rod, hangers (all types), laundry hamper, carpet, base and pad, doorstop, hooks, door, lampshades, vases (tabletop), flashlights, Innkeeper Liability Card and frame, rack cards.</p>	
<p>Upstream lifecycle emissions (materials extraction, manufacturing/processing, transportation to hotel) of other OS&E ongoing consumable goods procured by the operator with less typical replacement rates less than one year but not single-use</p>	<p>Cups and saucers (all sizes and materials), non-alcoholic beverages glasses in all sizes and materials, alcoholic beverages glasses in all sizes and materials, ice tongs/ cooking tongs/ serving tongs and other tongs, aluminum trays/ buffet trays/ serving trays and other trays, bowls (all sizes and materials), butter dishes/ chafing dishes/ casseroles/ glass dishes/ souffles dishes/ ramekins and other dishes, china, coffee pots and lids (all sizes and materials), coffee urn, pitchers and carafes, plates, all sizes and materials (except paper/plastic), platters, serving, potholder and mitt, pour spouts, salt and pepper shakers, sauce boats (all sizes and materials), sugar holders, teapots and lids, tray jacks, crocks/ mixing bowls/ pots and other cookware, reusable stirrers, spatula, reusable cutlery, ice buckets and liners, sneeze guard, reusable straws, bar shaker/ bottle openers/ bottle stoppers/ corkscrews and other beverage tools, bar blender/ bar shaker/ bottle openers/ bottle stoppers/ bottle warmers/ corkscrews and other beverage tools, can openers, cookier cutter, cutting board, F&B strainers (all sizes and materials), molds, pastry tubes, scissors, kitchen, bar mats, menu cover, tablecloths, runners, skirts, under cloth and accessories (all materials and sizes), fire-starter packets for use by guests in rooms, brooms, brushes, dusters, dusting mitts, dustpan brushes, dustpans, feather duster, flatware cleaner, mop handles, mop wringers, rug cleaners, scrapers/ sponge/ scrubs/ steel wool and other supplies, spray bottles, squeegees, toilet plungers, fly swatters, paint and ancillary chemicals, paint brushes/rollers/sprayers and other supplies, rubber cement, live indoor and outdoor plant/ tree/ shrub/ flowers/ seeds and other greenery supplies, golf course sand/ cinders/ top dressing/ topsoil and other supplies, indoor and outdoor plant/ tree/ shrub/ flowers/ seeds and other greenery supplies, aquarium and supplies, ashtray/ ashcans in various materials, artificial floral arrangements/ flowers and other greenery, holiday and event decorations (indoors and outdoors), banners, electronic/ static signs, safety glasses, key rings, key tags, aprons/ chef hats/ smocks and other kitchen uniforms, blouses/ t-shirts/shirts and other uniform tops, boots/ shoes/ socks and other footwear uniforms, caps/ hats and other uniform headgear, coats/ jackets/ jumpers/ suits and other outerwear uniforms, dresses, pants/ skirts/ shorts/ trousers/ overalls and other uniform bottoms, ties, pants/ skirts/ shorts/ trousers and other uniform bottoms, cell phone chargers, electrical adapters, vehicle parts and supplies—not capitalized, business cards, calendars/ diaries/ planners (various sizes), desk organization supplies, folders, glue, label maker supplies, log/ reservation/ record/ report books, placards, poster board, rubber bands, stencils, safety/ stick/ straight pins, check presenters, educational books/pamphlets/ manuals for employees, publications, house (for employees), videotapes, training/safety, nail file, umbrellas, luggage racks, golf cart batteries, pull carts, props, toys, cable guide cover, cell phone equipment, Gideon Bibles, anti-fatigue mats, bath/ floor mats and rugs, bath sheets, bathrobes, bed and crib pads, bed canopy, bed ruffles, bed sheets (various), bed skirts, bedspreads, comforters/ blankets/ duvets and similar bedding, bed/ crib bumpers, bunting, linen tablecloth, mattress cover/ protector, mattress pad, pillows (various materials and functions), rubber sheets, towels (various sizes), washcloths, cords, bathtub safety mats, bathtub safety strips, dispensers (soap, lotion), shower curtain, shower curtain liner, rod and rings, clothes brushes, reusable laundry and dry cleaning bags, shoe brush, amenity containers (reusable), do not disturb cards/ guest guide/ water conservation cards/ towel reuse cards/ health, sports and spa equipment instructions and other advisories, doormats, posters.</p>	
<p>Upstream lifecycle emissions (materials extraction, manufacturing/processing, transportation to hotel) of other OS&E ongoing consumable goods of high frequency of replacement for continuous use, procured by the hotel operator</p>	<p>Glass bags, food and drink cover (all sizes and materials), steak markers, menus (F&B), reusable placemats, table protectors, fireplace lighter, acids, air freshener (all forms), alcohol (cleaning), all-purpose cleaner/ artificial plant cleaner/bathroom cleaner/ concrete cleaner/ stainless steel/ tile/ upholstery and other cleaners, ammonia, bleach (general), bleach packets (laundry), carpet shampoo/ chemical, degreaser, dishwashing soaps and rinsing agents, disinfectants, polish for furniture/ floor/ silver and other, floor soap, floor wax, furniture wax, gum remover, lemon oil, lye, non-dishwashing cleansers (powder/ liquid), oxalic acid, pool chemicals (health club/spa operated), soap scum remover, soaps, cleaning, stain remover (laundry), stain removers (non-laundry, all forms), dishcloths, dust cloths, lint brush, remover, mops, rubber gloves, scouring pads, scrapers/ sponge/ scrubs/ steel wool and other supplies, toilet brushes, vacuum filter, bug traps, insecticides, mouse traps, adhesive, stair tread, air filters, cooling tower chemicals, shelf paper, carpet tape, fertilizer, candles, fish/ live items for aquarium, artificial floral arrangements/ flowers and other greenery, fresh floral arrangements/ flowers and other greenery, ice sculptures, medical supplies and drugs, key blank, key cards (non-guestroom), name badges, batteries, photos, binder clips/ paper clips, cardboard boxes, data cartridges and tapes, note pads (various sizes), parchment, postcards, printer/ copier ink/ toner, printer/ copier paper, shipping supplies, stamp pads, staples, tape (various), wrapping paper, writing supplies, adding machine tape, cash and coin handling equipment, cashier forms, currency bill straps, envelopes, guest checks, employee gifts, promotional gifts, VIP guest gifts, aromatherapy oils (health club/ spa), cosmetics, mouthwash, tweezers, luggage tags, golf balls (practice range), flip charts, magazines (both staff/ trade and guest use), newspaper bags for use by guests in rooms, playing cards for use by guests in rooms, accessories/ apparels/ books/ golfing personal equipment/ logo merchandise and other merchandise, spa products, tobacco and cigar, shower slippers, tissue and paper towels, dispenser, holder and cover, toilet seat and covers, candy dishes, computer forms –commercial, printed, housekeeping/ room attendants' reports, room rack forms, trade show promotional items.</p>	<p>PRESUMED “VERY HIGH” AS AN OVERALL CATEGORY, TO BE FURTHER CATEGORIZED & PRIORITIZED FURTHER GRANULARITY FOR FINAL DETERMINATION BY 2025 OR 2030</p>

SOURCE	EXAMPLES	DEFAULT CLASSIFICATION
SCOPE 3 continued		
Upstream lifecycle emissions (materials extraction, manufacturing/processing, transportation to hotel) of other OS&E ongoing consumable goods of single-use or which generate solid waste from each use and discard, procured by the hotel operator	Firewood/ logs, matches, customer use, butane fuel/ charcoal/ Sterno/ propane and other minor kitchen fuel, garbage bags, gasoline and lubricants, aftershave lotion, bath gel, bath salts, combs, conditioner, hair, cotton swabs and cotton balls, creams, body/face (rooms), dental kit (toothbrush, toothpaste, toothpicks, floss), deodorant, diffusers (health club/spa), elixirs (health club/spa), emery boards, hair nets, hair pins, hair spray, hairbrushes, hand sanitizer, hand soap (bar, gel), lotions (body, hand), makeup remover, massage oils (health club/spa), nail polish (health club/spa), nail polish remover, razors, room slippers, sanitary pads/tampons, shampoo, shaving cream/gel, shower caps, tonics (health club/spa), tissue and paper towels, toilet paper, bathing suits, disposable, closet sachets, single-use laundry and dry-cleaning bags, sewing kits for use by guests in rooms, shoe mitt, shoe polish, amenity baskets (non-reusable), brochures/ maps and other attraction guides, charge vouchers, check-out notices, comment cards/ request forms/ safe deposit cards, parking permit, violation cards/ tickets, housekeeping/ room attendants' reports, golf scorecards.	PRESUMED "VERY HIGH" AS AN OVERALL CATEGORY, TO BE FURTHER CATEGORIZED & PRIORITIZED FURTHER GRANULARITY FOR FINAL DETERMINATION BY 2025 OR 2030
Upstream lifecycle emissions of food and beverage consumables provided by the hotel to guests	Takeout bags and containers, single use cups and glasses, aluminum single use trays, coasters, plates, all sizes, disposable, aluminum foil, cellophane/ plastic wrap, doilies/ coffee filters/ paper liners/ waxed paper and other liners, tray liners, single-use stirrers, disposable cutlery, picks (toothpicks, cocktail), single-use straws (all sizes and materials), wine cellar supplies, linen napkins, napkins and towelettes, single-use placemats, table tent cards, baked goods, bar supplies—consumable, beer- bottles and cans, beer-draught, CO2 (for soft drinks and beer), canned food, dairy products, dry goods (flour, pasta, etc.), dry ice, eggs, fish and other seafood, ice, juice, liquor- bottles, beef/pork/chicken/lamb and other meat, soft drink syrup or premix, soft drinks, vegetables, wine- bottles, bottled water, candy & mints, cheese baskets, coffee/ tea/ hot drinks/ creamer and other instant beverage supplies, cookie wrappings, guestroom, cookies, fruit baskets, soda.	
Emissions from disposal and treatment of solid waste generated at the hotel	Landfilled municipal solid waste, bottles and cans, food waste, garden waste	HIGH
Emissions from outsourced laundry	Laundry wash outsourced to an external operator, or a centralized destination facility outside the hotel's financial or operational control	HIGH
Emissions from employee commuting	Employees driving cars to/from work, employees taking public transport	HIGH
Transmission & Distribution Losses	Grid loss of purchased electricity	MEDIUM
Business travel	Travel of sales and marketing staff to a customer's destination, travel of general manager to a regional company conference	MEDIUM
Emissions from on-site composting for gardening use	On-site composting and generation of fertilizer	LOW
Emissions from guest ground transport to and from the hotel arranged by the hotel	Airport pick-up, offsite event shuttle bus	LOW
Emissions from disposal and treatment of wastewater effluent from the hotel	Sewer water effluent via piping for municipal treatment not owned or operated by the hotel company	OUT OF BOUNDS
Emissions from other guest activities unrelated to the hotel during the guest stay	Guest visit to an amusement park, convention center for a conference, restaurant down the street for a meal	OUT OF BOUNDS
Emissions from guest transport from city of origin to the destination of the hotel not organized by the hotel	Flight to/from home city to destination with interim layovers, interim travel on rail between two different destinations on a multi-city itinerary	OUT OF BOUNDS
Freight emissions of materials transported to a hotel for a meeting held in the hotel as a venue	Exhibitor booth, banner, SWAG	OUT OF BOUNDS
Emissions from transportation of fuel procured directly by the hotel	Shipping and ground transport of propane tanks for heating or diesel oil for generating electricity in a remote island	OUT OF BOUNDS
Emissions from generation of fuel sources	Process emissions from using methane to produce hydrogen that is delivered to the hotel to power a fuel cell for property energy use Process emissions for extracting, refining, and delivering fuel sources used by electric power utility to generate and distribute electric power to the hotel	OUT OF BOUNDS
Employee housing	Employees housed in accommodation paid for but not owned or operated by the hotel	OUT OF BOUNDS
Emissions from outsourced data servers	Physical server used in a cloud server procured by the hotel	OUT OF BOUNDS
Emissions related to municipal water processing and transmission to the hotel	Upstream emission of water delivery Downstream emissions of wastewater treatment	OUT OF BOUNDS