

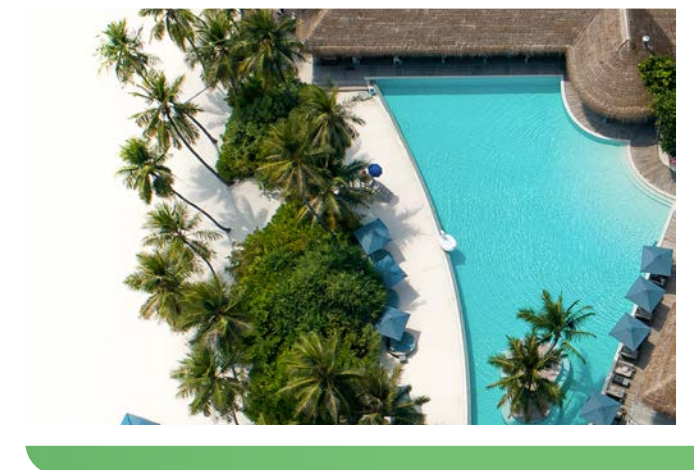
NET ZERO METHODOLOGY FOR HOTELS

2ND EDITION • JUNE 2023

APPENDIX O

OPPORTUNITIES FOR FURTHER WORK


GREENVIEW



APPENDIX O: OPPORTUNITIES FOR FURTHER WORK

This Version 1.0 of the Net Zero Methodology for Hotels is released around COP26 in November, 2021 in Glasgow, Scotland. While the methodology seeks to provide guidance for setting and pursuing net-zero commitments, it recognizes that many of the elements necessary for improving the quantification and reduction of GHG emissions across a hotel value chain will need to be developed or improved. Thus, the methodology invites collaboration and parallel or supporting efforts to fill the following gaps, needs, and opportunities that were identified during the development and consultation of this methodology, also in the hopes of reducing the need to re-invent the wheel or address concurrent initiatives attempting to do the same thing.

1. Renewable energy and carbon offset purchases in hotel accounting. A historical limitation to purchasing renewable energy is the limitation in clarity on how it should be accounted for in the P&L (and in some cases, balance sheet) of a hotel. Furthermore, when viewed solely within the line item of energy expense and not something more representative of its intended use (i.e., cost of goods sold, marketing, general expense for helping save the planet, etc.), it may skew the perception of cost. For example, adding \$0.02 per kWh of electricity to the energy line item may represent a 15% increase in energy spend, but if that value were accounted as a cost of goods sold as a 0.03% percent of revenue, the perception would be much different. Guidance and standardization through standards and industry bodies, such as the Uniform System of Accounts for the Lodging Industry (USALI), could support this. The 12th edition of USALI, currently in draft form at the time of publication, has made enhancements for the first time to include sustainability metrics and enhance the Energy, Water, and Waste (EWW) section to encompass renewable energy and carbon offsetting, and further enhancements and guidance can be added over time as the topic evolves, including issues of internal carbon pricing or carbon abatement.

2. Better emission factor coefficients for outsourced laundry. When HCMI was developed in 2011, the methodology agreed that outsourced laundry should be included in the footprint. At the time, the most recognized practice in the hotel industry was the linen/towel reuse program, and it was perceived unreasonable that the one guest engagement mechanism requesting guest participation would be essentially null and void if the hotel were to outsource its laundry wash. HCMI outlined the expectation that hotels should seek the energy usage associated with its outsourced laundry wash from the provider, and a rule-of-thumb ten percent of energy add-on was allowed as a proxy. Ten years later, in practice it is extremely difficult to obtain this data, and much less in a direct ratio figure for a hotel based on occupancy. Additional studies to further segment and provide default coefficients that the industry can use to estimate the energy usage of outsource laundry relative to the hotel's size would be welcomed.

3. Hotel-specific studies for the GHG emissions of purchased FF&E and OS&E. As outlined in Section 2, embodied carbon and upstream LCA emissions of the various goods purchased for a hotel will need to be addressed in some form. However, no definitive industry study or referential data set exists for quantifying and itemizing typical emissions or a range of emissions from the most common purchases of a hotel is found. Nor are default coefficients available for easy use respective to common purchases for a hotel. Supporting these calculations would enable better decision-making and expedite the addition of this source of Scope 3 emissions prior to the 2025 and 2030 yardstick years.

4. Better emission factors and approaches for hotel waste generation and disposal. For a hotel to quantify the GHG emissions of waste, a handful of resources are available such as the GHG Protocol Scope 3 Evaluator and an

interpretation of the EPA Waste Reduction Model (WARM) model. However, specific modeling based on composition of hotel waste would be very helpful, as the composition of a hotel's waste, including used amenities, food scraps, and other common items, may merit different coefficients for better estimation and quantification of reductions. Hotels routinely perform waste stream auditing (aka Dumpster Diving) and several hotel companies report on waste emissions. However, consistent calculation methodology and resources would facilitate more disclosure across the industry.

5. Supplier-specific emission factors for purchased municipal steam and chilled water. Globally these are very hard to come by and calculate consistently.

6. Emissions from employee commuting. While a hotel is able to undertake surveying of staff and calculation for its estimated annual emissions of their communities, this ends up being a redundant and highly repetitive exercise as each hotel in a destination performs its own survey and calculations. To determine baselines and fill gaps, larger scale surveying and default data per destination based on the emission factors specific to its electric power, public transport etc. would be helpful. Likewise, hotel-specific calculators would enable smaller hotels to easily and quickly conduct the assessment.

7. Carbon offsets to contribute to sustainable tourism. While this methodology outlines the aspirations for a carbon offsetting and sustainable tourism nexus incorporating the UN SDGs, work still needs to be done to help identify, qualify, and document these efforts. Further criteria, and a database of valid projects in terms of their contribution, would be immensely helpful to practitioners as well as enabling quantification of collective impact for carbon, SDGs, and destinations. Furthermore, to maximize the benefits, in addition to methodology and best practices, alliances can be formed between technological innovation centers with members of the hotel and the wider travel industry in order to identify and scale compensation techniques relating to types of hotel establishment and regions.

9. Technology, best practices, and other solutions to address offset overlap of multiple Scope 3 boundaries. As outlined in Section 5.4, challenges and inefficiencies arise when a renewable energy certificate of a hotel would need to be purchased by the hotel's owner, operator, and franchisor in order to count, and a carbon offset purchased for the same hotel stay could be purchased by the traveler, the company on which the traveler is on business travel, the company's corporate travel buyer, the hotel's owner, the hotel's operator, the hotel's franchisor, the hotel's physical destination entity, and the corporate travel buyer's distribution system. Conversely, transparency should exist if a REC provider or carbon offset provider were to sell eight different certificates or offsets for the same source of emissions. Hotel chains which have portfolio-level software for tracking of purchases are one area where best practices can be developed and shared. Blockchain technology can also bring solutions, as well as better and more contemporary guidance on accounting, retiring, and claiming offsets which were originally developed decades ago for purposes of national government-level accounting and not for a net-zero world or the implications of multiple offsetting on products and services such as hotel stays.

10. Defining a carbon neutral hotel stay or meeting. While this methodology seeks to address a hotel or organization approach to pursuing a net-zero pathway, overlap will continue to increase as initiatives arise among hotel chains, intermediaries, and other providers for offering carbon neutral travel and a carbon neutral stay. Much like the instance where HCMI was needed to

define the common calculation of a hotel stay and meeting space usage, a similar approach will be needed to identify the parameters of these claims. The primary difference between net zero and carbon neutral stays is that net zero is a long-term pathway that will require larger efforts to achieve for a hotel or an organization, while carbon neutral stays are being offered presently and claims will be difficult to regulate or certify across the industry without common definition and criteria, for example that a carbon neutral stay should encompass 100% renewable electricity, minimum efficiency practices, and offsetting per the sustainable tourism equity principle and be calculated using HCMI metrics.

11. Common thresholds for highest performance in carbon and energy intensity. As industry data sets mature, it should be possible to identify ranges of superior performance for energy usage intensity specific to hotel types, regions, and sizes, which are not dependent on comparison with others but rather on specific intensity values. Such values do exist in various frameworks, but are yet to be proven empirically on a wider scale and specific to hotel operations and metrics. In establishing such performance thresholds, managerial approaches to the pathway category on energy efficiency as well as the general need in ESG to set “reduction targets” can mature as well. For carbon emissions intensity, the Sectoral Decarbonization Approach (SDA) sets specific thresholds by proxy in a pathway for intensity-based decarbonization. However, this is limited to all types of commercial buildings, and hotels have been shown to have larger energy and carbon intensities than other asset classes. As such, hotels achieving the SDA pathway of % intensity reduction will in effect achieve larger reductions than other types of commercial buildings, as they start from a higher intensity base to begin with.

12. Common definition of floor area to determine energy and carbon intensity. While hotels and other buildings are typically measured, benchmarked, and modeled for decarbonization in an intensity metric of floor area (i.e., per square meter or per square foot), no universal definition of floor area is used across the industry. This is due to many jurisdictions defining it differently, and general standards not addressing the specifics of a hotel for things such as pool areas, guestroom balconies, varied parking structures, and other amenities. HCMI calls for **conditioned space** as a boundary to use, but even this is not defined in a standard. Furthermore, conditioned space may not be the most accurate in depicting performance when it forces a hotel to exclude open-air and naturally ventilated areas that have been developed specifically to reduce energy usage. Developing a common standard or guidance addressing all the specific issues to a hotel will help address this issue, especially as benchmarking of performance becomes more granular and requested by stakeholders.

