

Climate neutral hotels - an industry solution framework

Kai Spehr^{1,*}

¹myclimate - the climate protection partnership, Zurich, Switzerland

*kai.spehr@myclimate.org

Abstract

The range of services offered by myclimate integrates optimisation of methods, operations and energy use at operational level. Through means of an annual evaluation, the hotel is accompanied on the road to sustainability. myclimate's IT-based Performance Management System (PMS) evaluates the hotel with regards to the measures it has adopted and its annual development. A sector benchmark provides insights as to the hotels' status in the market, while at the same time, a performance certificate and a label form the basis for communication with end customers. Further supporting communication services are helping hotels gain credibility and recognition for being responsible businesses.

1 Introduction

Switzerland has a long-standing tradition in the hotel sector and tourism has greatly profited from the beauty of the alpine landscape. Our generation faces many challenges, the greatest task of our century being to stop the man-made climate change we are experiencing. Tourism, and with it the hotel sector, is often criticised for wanting to change landscapes in disharmony with nature. Consumers - whether private or business clients - are increasingly getting involved in climate protection. With sustainable products and services becoming more and more in demand, it is time to create sustainable services also in the hotel sector.

In cooperation with experts in the field of energy efficiency, myclimate has created a sector solution for the hotel industry by focusing on this aspect, offering a comprehensive solution - scientifically based, business-oriented and sustainable.

2 Framework

The framework (Fig. 1) used for this industry solution brings many advantages for the hotels:

- The framework clearly defines the procedure for all hotels to follow, no matter what category or location
- Integrates all aspects and strengths of myclimate (own carbon offsetting projects, climate education, and carbon management services)
- Provides added value for the hotel and the guests
- With clearly defined system boundaries, it allows for industry-wide benchmarks of the results
- Successful completion is awarded with specific label

The following graphic (Fig. 1) displays the framework. The individual steps will be described in the following paragraphs.

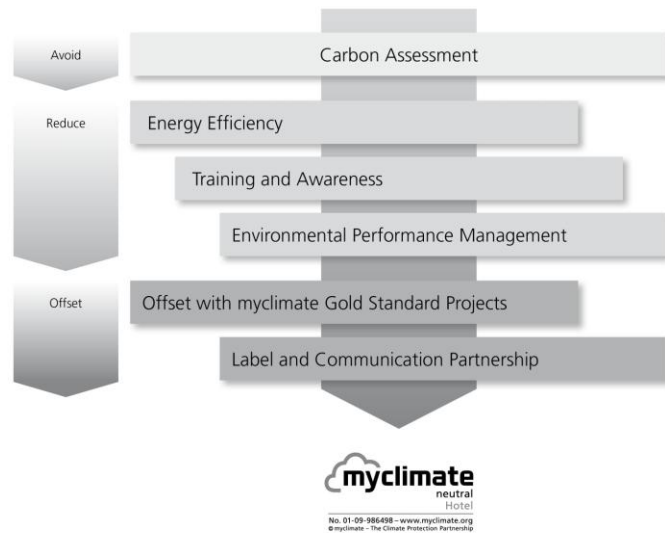


Fig.1: Framework for the industry solution for myclimate neutral hotels

2.1 Carbon Assessment

Based on two Master theses [1,2], and with the expert doCOUNT [3], myclimate has developed a methodology with which it can assist hotels in the long term in processing information for environmental protection. To begin, the relevant data is recorded online within precisely defined system boundaries and evaluated in the myclimate PMS. The result is a scientifically based carbon assessment of the hotel, which shows exactly how many emissions of CO₂ equivalents (CO₂e) occur in which areas of the hotel's operation.

2.1.1 Methodology

Goal and Scope

The goal of the carbon assessment is to calculate the global warming potential (GWP) of the hotels.

All inputs such as electricity, natural gas, diesel and oil, but also the supply chains, mobility of the staff, waste and recycling as well as laundry and guest supplies are considered.

Data inventory

Primary data for the assessment is collected online with the myclimate PMS.

Emission factors mainly are taken from the ecoinvent inventory V2.2 [4]. Additional data is taken from several life cycle assessments (LCA) and carbon footprint studies [5, 6, 7, 8].

Impact assessment

The GWP with a time horizon of 100 years according to the Intergovernmental Panel on Climate Change (IPCC) was considered [9].

2.2 Energy Efficiency

In a next step, an energy consultant collects energy data on site for an industry benchmark and conducts an energy efficiency analysis which identifies the energy savings potential of the hotel and identifies ecologically meaningful and economically feasible measures

2.3 Training and Awareness

myclimate provides on-site climate education that is aimed at increasing hotel staff's awareness of climate protection, promoting the understanding of quality criteria for sustainability and training the sales team in customer contact.

2.4 Environmental Performance Management

After one year, and with the second data collection, myclimate evaluates the hotel with the proprietary environmental performance management system horizontally (across the sector) and vertically (along the time axis), showing clearly in a record of performance to what extent the hotel has improved in the areas of climate protection and energy efficiency and how the hotel compares with its competitors in these matters. The operational measures are tracked and the effectiveness of these measures is evaluated. For the hotel, the record of performance embodies verified proof of its commitment for a fact-based communication towards its clients.

2.5 Offset with myclimate Gold Standard Projects

CO₂e emissions that cannot be avoided or reduced are offset in a third step in myclimate carbon offset projects, and the hotel thus becomes climate neutral. This way, the hotel can actively and sustainably provide climate protection, and help to create jobs and support the sustainable use of resources in these projects.

2.6 Label and Communication Partnership

The label "myclimate neutral hotel" (Fig. 2) is the reward for the hotel's commitment. The communication partnership from myclimate supports the hotel to properly communicate its commitment to sustainable development. The Hotel is accompanied in the years to come and supported with text modules and image material for their communication.



Fig.2: Label: myclimate neutral Hotel

Every participating hotel receives a label with a unique tracking number, valid for one year. This number provides transparency on the amount offset and the project chosen by the hotel.

3 Conclusion

First hotels have already started to calculate their CO₂e emissions and offer climate neutral accommodation to their guests. Experience has shown that a carbon assessment and the respective offset are not sufficient for hotels to reduce their carbon footprint. This is why myclimate has partnered with energy efficiency experts and created an integrated framework to support hotels on the road to a low carbon economy.

4 References

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