DEVELOPING IN CARBON INVENTORY TECHNOLOGY FOR THE HOTEL INDUSTRY 廖珊彗, 林祥生, 林沛傑

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Abstract

In recent years, traveling demand has grown rapidly worldwide which leads to a fast growth in the hotel industry. World Travel & Tourism Council (WTTC) pointed out that contribution value of global sightseeing industry to the global GDP will rise to 10.7% in the forthcoming ten years. While many countries devoted to develop the sightseeing industry to increase the economic growth, it actually brought the negative environmental pollution and impact to the tourist areas. The sightseeing industry was formerly regarded as "the non- smoke stack industry", but now is respected as tremendous use of energy and the resources seriously. Since the whole world pays much attention to the issues of the global warming and the greenhouse gas deduction currently. It will become the development trend and the vision with the concept of low-carbon activities in all links of Tourism in the future.

The hotel industry should carry out essential greenhouse gas inventory early to tackle the increasing traveling tourists which results in the huge benefit, but creates the greenhouse gas emission problems. That will possibly accelerate to worsen the earth climate and possibly influence sightseeing resources thereafter.

If there is a useful way of Carbon Inventory, the entrepreneur will be more willing to perform the declaration policy every year. Therefore, the main purpose of this research will aim at the development in Carbon Inventory method for the hotel industry. It will help the hotel industry to calculate their greenhouse gas emissions in the future, to find out the sources and characteristics of greenhouse gas emission and to be a reference of internal environment investigation. It will enable the hotel industry to set a clearer and simpler standard to perform the energy conservation strategy to reduce the carbon emissions, making them to become a responsible green hotel to the society and the environment. That

will probably earn them a good reputation and create a new business model for the hotel industry.

We perform the on- site carbon inventory in a five- star hotel in Taiwan. The performance result and analysis of the carbon inventory for the hotels will also be discussed in this paper. We hoped that developing and promoting such a technology will make more and more hotel industries understand their own greenhouse gas emissions to achieve the goal of energy conservation and carbon reduction, thus we can create the win-win aspect between the environmental protection and the economy.

Keyword: Greenhouse Gas Emission, Carbon Inventory, green hotel, energy conservation, carbon reduction.