Adoption of Green Energy in Tourism Accommodation Facilities

Energy is indispensable in our daily lives as it’s required to run most of the activities. It is the basic input required to sustain economic growth. Traditional sources of energy are primarily fossil fuels (oil, coal and gas). While these sources have provided energy solutions for the world, their supply has been dwindling dramatically. Emissions from burning of these fossil fuels have also been detrimental on climate, causing global warming hence leading to climate change. In particular, the tourism facilities also contribute to these emissions from diesel generators and vehicles.

The United Nations World Tourism Organization (2008) suggests that there is a dual relationship between tourism and global warming where tourism is both a contributor as well as a victim. Scientific research confirms this by noting that tourism through its various components ((tourist destinations, transportation, accommodation, travel brokers and travel related services) is responsible for about 5% of global CO2 emissions. Action must be therefore taken to safeguard the environment and resources upon which tourism depends by embracing sustainable tourism.

In promoting sustainable tourism, there is a rising trend to adopt green energy solutions as well as a global trend with travelers being keener on green practices. Green practices which refer to environmental friendly decisions and lifestyles, have consequently become more relevant. This has seen the demand for tourism accommodation facilities to take responsibility for their contributions to climate change and the declining environmental state.
Ideally, the global community intends to shift towards a green economy. A Green economy refers to a situation in which economic growth is in harmony with environmental protection with the aim to achieve sustainable development. A green economy is dependent on a green energy adoption. Green energy, also referred to as renewable energy is derived from sources that can be used repeatedly without being depleted. They include; wind, hydro energy, solar energy biomass and tidal power. Green energy can be harnessed and used for various uses within a tourist facility, such as cooking, heating water for guests and lighting.

Ecotourism Kenya has a criterion that specifically addresses energy. The criterion states that energy sources should be indicated, monitored and conserved. It further emphasizes on adoption of renewables as well as innovative measures for sustainable use of energy that actively includes efforts by both guests and employees. Further to this, it is now a legal requirement in Kenya to invest in renewable energy. The Energy (solar water heating) Regulations, 2012 require among other things that, all premises within the jurisdiction of local authorities with hot water requirements of a capacity exceeding one hundred litres (100 litres) per day shall install and use solar heating systems.

A good number of facilities within the Eco-rating Scheme have adopted the use of green energy. One example is Olarro Lodge, a Gold Eco-rated facility. The lodge is powered primarily by solar energy. The facility has invested in a total of 150 solar panels fixed with power inverters systems. This energy is harnessed, stored and used to supply the requirements of electricity, water heating and maintenance of the swimming pool. The lodge has also installed twenty six (26) solar water heating system each with a capacity of 300 litres.

A green economy also emphasizes energy conservation and efficient use of the already available energy. In this effect Olarro Lodge has invested in use of solar rechargeable torches / flash lights in the guest rooms. All visitors are also briefed upon arrival on the need to conserve energy through...
switching off unnecessary lights. This has further been exemplified by installing sensitization signage throughout the facility encouraging both staff and guests to swift off unnecessary lights. LED (Light Emitting Diodes) and energy saving bulbs are fixed throughout the facility for energy use efficiency.

Other practices that can be applied by tourism facilities to shift to the ‘greening’ trend include:

- Reduction which is the efficient use of energy with the goal to minimize the amount of energy required to produce products and services. For example use of energy efficient stoves in hotels to cook for guests.
- Recycling which is the utilization of energy that normally would be wasted by converting it into electricity or thermal energy.
- Recovery which refers to the process by which non-recyclable solid waste is converted into energy. This involves the use of energy alternatives from biomass e.g. briquettes such as those made from coffee husks, saw dust, waste paper/cartons.

Tourism facilities can also reduce energy consumption save costs in their daily operations through simple but yet very efficient ways such as;

- Switching off power appliances when not in use,
- Replacement of incandescent bulbs with Light Emitting diode (LED) bulbs which have lower energy consumption,
- Use of efficient clothes washer in the laundry / running laundry machines on optimum weight hence reducing wastage
- Energy awareness by the assessment of the facilities energy usage data. Both the management and the employees should be well versed with the pros and cons of energy management.
- Facility monitoring to access the level of energy consumption and the facility energy demand so as keep a track of environmental impacts over time.

Cleaner energy for reduced emissions