

THEME ALLOCATED:	Energy Management – Advanced Level
PARTNER ORGANISATION:	ECQ
TITLE OF THE WEBQUEST:	Energy management in sustainable hotel
INTRODUCTION:	
<p>In a world full of electronic devices and modern technology, energy demand is constantly growing. At the same time, there is increasing concern about the future of energy resources and the impact of energy consumption on the environment. Therefore, it is important to know where our energy comes from, how much we consume, and how much this energy costs.</p> <p>One of the biggest expenses not only in households but also in the hospitality and tourism industries, is energy consumption. In many cases, people consume more energy than they actually need. On one hand, this results in higher costs and bills for energy consumption. On the other hand, it has a negative impact on the environment due to an increase in CO2 emissions worldwide.</p> <p>It is important now more than ever to source solutions and ways to contribute to energy conservation. This promotes a clean energy future has gained popularity in recent years in the tourism sector. The topics of energy consumption and energy conservation have turned to be major topics of discussion and research by scholars and industry professionals worldwide in the last few decades.</p>	
TASKS:	
<p>A new 5-star hotel located in a national park in the mountains is planned to open its doors for guests from all around the world. Due to its location, the hotel is required to offer only sustainable products and services. Therefore, hotel managers have to create a portfolio of such products. As they are not familiar and experienced with energy management they need external help.</p> <p>Your task is to create a PowerPoint presentation in which you explain the concept of energy management and its importance in the tourism and hospitality industry. The presentation also has to include 1 proposal of how the hotel and its products can become more sustainable through energy conservation. The last part of your task is to give examples of how hotel employees and guests can be actively engaged in the process of sustainable energy consumption and promotion.</p> <p>In order to complete the task and create your presentation, follow the steps below and answer the following questions:</p> <ol style="list-style-type: none"> 1. What are the core elements of energy management? 2. How can energy consumption be reduced and how can energy conservation be improved in the tourism and hospitality industry? 3. What renewable sources of energy can be used in the tourism and hospitality industry? 4. What is your idea and proposal? Explain why and how your idea will make the hotel more sustainable? 5. How can employees and tourists contribute to energy conservation and energy efficiency? 	
PROCESS:	
Step 1: What are the core elements of energy management?	

Find what energy management is and what are its core components. Use the energy sustainability pyramid. Present the main elements (concepts) and their definitions. Use the links below to gather all relevant information:

- [The What, Why, and How of Energy Management](#)
- [Energy pyramid](#)
- [Understanding Energy – Energy pyramid](#)

Step 2: How can energy consumption be reduced and how can energy conservation be improved in the tourism and hospitality industry?

Why are energy conservation and energy efficiency important to the tourism and hospitality sector? Use the links below to find the needed information:

- [Hotel Energy Solutions](#)
- [Energy Management and Efficiency in Hospitality](#)
- [Energy Conservation Techniques](#)
- [Energy Saving in Tourism Business](#)

Step 3: What renewable sources of energy can be used in the tourism and hospitality sector?

Find out how hotels can take advantage of renewable energy sources. How can these sources contribute to sustainable development in the tourism and hospitality industry?

- [Renewable Energy](#)
- [Renewable Energy in Hotels](#)

Step 4: What is your idea and proposal? Explain why and how your idea will make the hotel more sustainable?

The proposal can be a product, updated service, new device, approach or method that can be applied in the hotel system. Describe your idea and give examples. Explain how your proposal will contribute to the hotel *sustainable energy management plan*. Use the links below to find several suggestions that can be used:

- [Energy Management Systems](#)
- [Hotel Energy Solutions](#)
- [Energy Conservation](#)

Step 5: How can employees and tourists contribute to energy conservation and energy efficiency?

How can you train employees to optimise energy consumption while offering hotel services and products? What approaches can you apply in order to educate guests regarding energy conservation?

- [Energy Efficiency Tips for Hotel Staff](#)
- [Hotel Energy Management](#)
- [Hotel Energy Saving](#)
- [Ways To Reduce The Energy Consumption In Your Hotel](#)
- [Energy Efficiency for Hotels](#)

EVALUATION:

Quiz questions:

1. Select the answer that contains the 3 elements of the energy sustainability pyramid:
 - a. Energy Consumption, Energy Conservation, Fuel
 - b. Energy Conservation, Energy Efficiency, Renewable Energy**
 - c. Energy Efficiency, Sustainability, Solar Panels
2. The biggest energy savings and costs in hotels include 3 major areas. Chose which are these three areas:
 - a. air conditioning, TVs, elevators
 - b. lights, air conditioning, refrigerators
 - c. hot water, air conditioning, lights**
3. Which of the following answers contains only sources of renewable energy?
 - a. Nuclear energy and Coal
 - b. Solar energy and Natural gas
 - c. Wind energy and Hydro energy**

Self-reflecting questions:

1. Which is the renewable energy source that you think is best to be used in a hotel and why?
2. What are the benefits of hotels if they optimise the energy consumption?

CONCLUSION:

Nowadays efficient energy management, energy conservation, and green energy are terms that are gaining global recognition across different industries, including the tourism and hospitality sector. With energy demands constantly growing, the challenges and concerns associated with using non-renewable resources has become more evident.

Increasing the amount of energy produced from renewable resources will help to expand our energy options. Furthermore, conserving energy through new technologies in tourism is an important step for creating a more sustainable energy future.