

# The Sustainable Hotel

## An Environmental Challenge Scenario



### Issue : Food Wastage

#### Some general things to think about:

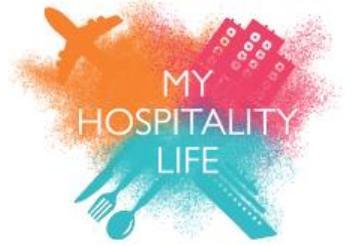
- In the entire world it has been estimated that about 30% of food that is produced for human consumption is wasted (ie never eaten by humans)
- Hotels serve 8% of all meals eaten outside of home in the UK (that's 611 million meals per year!)
- Restaurants produce 9% of all food waste in the UK...which is estimated to cost them over £318 million

#### Some things to help you in this round:

- Lots of people can't physically eat all the food that is served to them on their plates and instead they leave it on the plate...but other people like the idea of having plenty of food even if they don't eat it all.
- Some food can be broken down by anaerobic digestion to create plant fertiliser, but this can be expensive. Food waste can't be used for animal feed (ie pig swill) because it could lead to deadly animal illnesses like foot and mouth disease.
- 44% of restaurant customers would be prepared to pay more if they felt that the food a restaurant produced was 'environmentally friendly'.
- Many customers are too embarrassed to ask for the leftovers from their meals to be put into 'doggy bags' for them to eat later.
- Some restaurants don't want the expense of buying containers for customers to take their leftover food away...or they don't want the responsibility should the food become contaminated...which might, in turn, mean that a customer might claim that the food made them unwell.
- Of all food prepared for restaurant customers, it is estimated that
  - 35% of waste comes from preparation (ie peeling the veg, bits that customers don't like etc)
  - 34% comes from food left on the plate
  - 21% from 'spoilage' (ie food getting to its use by date)

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### Issue : Reducing energy usage

#### Some general things to think about:

- The hotel industry in the UK uses the same amount of energy as 1.2 million households per year. This is the energy usage of the hotels themselves and doesn't include the energy usage of some of the services that it gets other companies to undertake such as washing laundry or purchasing food materials.
- It has been estimated that between 20 and 30% of a business's costs could be spent on energy and, as a consequence, even small changes can have a big environmental impact

#### Some things to help you in this round:

- Typically, in hotels, about 50% of energy is used in either heating up or cooling down (air conditioning) the building. About 20% of the energy is used by lighting and 15% used for supplying hot water, the final 15% being used for specific activities such as cooking food, cleaning the building and laundry. This level of energy use will of course vary considerably based on the geographical location and style of the hotel and building.
- LED lights cost a fair amount of money to install, especially in older hotels, but they are far more efficient in the longer term than the older styles of lighting.
- The 'Glyde' Hotel at Edinburgh Park is the first battery powered hotel in the UK. It has 200 rooms and the battery can last for almost 3 hours a day.
- Research has shown that many customers are recognise the importance and sense of saving energy but are less likely to do so when they are in hotels on the basis that they consider staying in hotels to be a personal 'luxury'.
- Some budget hotels are introducing the idea of 'pay as you go'. If you need a towel, you pay extra for it. If you want to use the TV, you pay extra for it. If you use too much energy, you pay extra for it. It is very similar to some airlines who charge very low initial prices but add all the additional costs on the basis of use and consumption.
- Whilst many 4 and 5 star hotels would like to cut their energy costs, they are based in very old buildings and the cost of fitting new energy systems is far more expensive than introducing these savings in new build hotels.

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### Issue : Waste management

#### Some general things to think about:

- Over 70 billion (seventy thousand million) single use plastic water bottles are consumed annually in the US and Europe alone; National Geographic estimate that a maximum of 20% are recycled. That means that over 50 billion bottles go into landfill or end up in our oceans every year.
- Bottled water is commonly more expensive than petrol. If you buy a 50 cl bottle of water it often costs just under £1 whilst the same amount of petrol currently costs about 60p for 50 cl !

#### Some things to help you in this round:

- It is estimated that each hotel guest leaves about 1Kg of bin waste per night of which more than half is made up of paper, recyclable plastic and glass. In fact about 60% of the waste is recyclable.
- Lots of hotels will automatically include the price of a daily newspaper in the cost of a hotel room. This is often delivered to the door of each customer for them to read when they come down for breakfast in the morning.
- Many hotels provide free miniature products in their guests bathroom such as shower gel, shampoo, hair conditioner, body lotion, small bars of soap as well as things such as single use toothbrushes, razors and shaving foams, combs, sewing kits, shoe polishers, combs, nail files and shoe horns. Many customers won't use these during their stay but they will take these away with them when they leave!
- In addition to tea and coffee making facilities, many hotels provide still and sparkling bottled water for their customers...either to drink whilst they are in the hotel or to take away with them. In the UK a lot of customers are concerned about whether it is safe to drink the water from the taps, even though it is usually fine to do so!
- Most hotels in the UK now try to recycle the waste that the hotel produces, but the bin waste that the guest produce in their rooms needs to be sorted first and this takes time, effort and is not a pleasant task... so many hotels don't bother to do this.
- Some hotels have started to ask their guests to take their rubbish away when they leave. This particularly happens in places where it is difficult to dispose of waste properly or where it might be bad for the local environment (in mountains or isolated scenic locations).

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### Issue : Reduction of water usage

#### Some general things to think about:

- Customers account for the largest amount of water usage in hotels (38%) followed by the hotel laundry (16%) and the kitchen and food preparation (3%)
- In some countries where there is very little access to fresh water, hotels have invested in machines which take water from the sea, clean it and take the salt out so that it is safe for their guests to drink (in the Maldives and Dubai)

#### Some things to help you in this round:

- Tap aerators and dual flush toilets can reduce water usage by up to 40%. Tap aerators restrict the flow of water by allowing air to mix with the water or by turning the a flow of water into a mini shower. Dual flush toilets allow you to use more or less water to flush the toilet, depending on whether it is a 'No1' or a 'No 2'!
- Lots of people like the idea of having a new, fresh towel every day. This is normal practice in many hotels, but very, very few people have a fresh towel every day when they are at home.
- Research has shown that more guests re-use their towels in hotels if they feel that there is a good incentive (ie for each towel reused, the hotel gives £1 to a water charity)
- In the USA it is estimated that over 50 gallons of fresh water per towel is saved if hotel guests changed their towels every 3 days for a year.
- In the UK it has been estimated that restaurants and hotels use the equivalent of 100,000 Olympic sized swimming pools of fresh water annually
- Grey water systems take shower water and basin water and recycle it immediately so that it can be safely used for toilets. Hence the water is used twice before it is flushed away. This is very water efficient, but quite expensive to install.
- A large amount of water is wasted by people leaving taps on while they brush their teeth, or while they wash. There are lots of examples of people who even leave the water taps on when they are not in the room. Sensors can be fitted to taps to turn the water off when a guest is not using it, but they are expensive and some guests don't like the water turning itself off after a short time.