

Moving towards a sustainable hostel in Dubai – UAE

SUMMARY

Project Description: The project is aimed to improve the environmental performance of its facilities and the minimization of the hostels' carbon footprint by working on staff training, recycling, solar panels and water and electricity improvements

Project Type: Energy Efficiency, water, education in sustainability & others

National Association: UAE Youth Hostel Association

Project Location: Dubai Youth Hostel

Estimation of number of reduced tonnes of CO2

per year: Not provided, estimation between 15-25% current water and energy consumption.

Total Funds Requested: £ 25,000

Total Project Cost: £ 128,000

Annual £ saves and ROI (return of investment): ROI 5 to 7 years

Extra benefits: Organic farming, connect to nature and natural processes, social support and sense of community

Why should this project be funded ahead of others?

UAE Youth Hostel aims not only to be an Environmental Awareness hostel but also to be a Sustainable Hostel.



As Dubai is considered nowadays to be the prime tourists destination, with its fastest developments and location in the heart of desert, we believe that the UAE Youth Hostel will be a good example of a green and sustainable hostel where young tourists feel and better understand the importance of a sustainable culture.

As UAE Government, Dubai is spreading the spirit of Culture and Community in saving electricity and water, protecting the environment and contributes in emission reduction.

DETAILED PROJECT INFORMATION

PART TWO – PROJECT WORK PLAN

ACCESSING THE HISF

In deciding which project or projects shall be selected for the “public voting system”, HI shall take into consideration:

1. The priority of each project, including its total carbon reduction capacity, economical viability, cost reduction and return of investments

Carbon reduction capacity	Economical viability	Cost reduction and return of investments
<ul style="list-style-type: none"> ➤ Energy Saving – changing all the existing lights to saving ones ➤ Water Saving – changing all sets to saving ones-under process ➤ We estimate 15-25% reduction on our bills 	<ul style="list-style-type: none"> ➤ We estimate 5 to 7 years return of the investments 	<ul style="list-style-type: none"> ➤ Increasing the information value ➤ Cost reduction ➤ Risk mitigation ➤ Data quality ➤ Increased efficiencies ➤ Increase visibility

EXTRA SOCIAL SUSTAINABILITY BENEFITS PROVIDED BY THE PROJECT

ORGANIC FARMING/ ROOF FARMING	Good for human consumption as it is not coupled with any preservatives;
RECYCLING	Proper waste management, which can prevent global warming;
Connect to nature and natural processes	Daylight; views of outdoor natural spaces; views of the sky and the weather; water features; gardens; interior plantings; outdoor plazas or interior atria with daylight and vegetation; natural materials and décor.
Sensor change and variability	Daylight; window views to the outdoors, materials selected with sensory experience in mind (touch, visual change, color pleasant sounds and odors); spatial variability; change in lighting levels and use of highlights; moderate levels of visual complexity.
Behavioral choice and control	Ventilation, temperature, noise; ability to modify and adapt environments to suit personal needs and preferences; multiple behavior settings to support different activities; technology to support mobility; ability to move easily between solitude and social engagement and spaces to support both.
Social support & sense of community	Multiplicity of meeting spaces, use of artifacts and symbols of culture and group identity; gathering “magnets” such as food; centrally located meeting and greeting spaces; signals of caring for the environment (maintenance, gardens, personalization, craftsmanship).
Opportunity for regular exercise	Open interior stairways; attractive outdoor walking paths; in-house exercise facilities; skip-floor elevators to encourage stair climbing.

PROJECT WORK PLAN

ONLY THE NEW BUILDING IS BEING CERTIFIED (A)

PHASE I:

Our strategy for our project entails the implementation of a bespoke “Rapid Response Strategy” which will address employer’s intent to incorporate LEED Gold design elements into the tender documents. Will lead this rapid response task force so as to ensure that the building will become best positioned to receive certifications. This rapid response strategy will encompass the following: Goal Alignment Meeting, GAP Analysis, LEED Charrette, Project Registration updates, and ESC (Erosion & Sedimentation Control) Strategy Meeting.

The energy modeling work will start immediately after the rapid response phase and be used as a tool for the design team to see how well the buildings will be expected to perform regarding energy. The modeling PM will support the design team throughout the duration of the project and will offer advice on how the design team may adjust the various building components in order to make the building more energy efficient.

Once this has been complete, training will begin to ensure project team members are speaking the same “language”. Training would be further supplemented by move in-depth as the schedule progresses.

In addition, we would work with various stakeholders to develop the necessary infrastructure (software, workflow, etc) and assist in implementing requirements into the specification so that the employer may feel confident.

PHASE II:

Implementing the project plan.

Consulting the sustainability professionals.

PHASE III:

Finishing of the project plan details.

Find the attached detailed work plan.

A DETAILED WORK PLAN

1. ENERGY EFFICIENCY - ELECTRICITY SAVING:

- **CORRIDORS (MOTION DETECTION)**

Lighting will be switch ON/OFF based on movement, sensor time delay can be adjusted via software. Time schedule can also affect the system response to movement/occupancy based on client requirements (for example, inside working hours, outside working hours)

- **PUBLIC TOILETS (OCCUPANCY DETECTION)**

Lighting will be switch ON/OFF based on occupancy, sensor time delay can be adjusted via software. Time schedule can also affect the system response to movement/occupancy based on client requirements (for example, inside working hours, outside working hours)

- **MEETING ROOM (DIMMING/SCENE SELECTION)**

Lighting will be dimmed based on the running function inside the meeting room (General meeting, presentation, etc.)

An intelligent keypad will be provided to enable users to select suitable lighting scenes. All preset scenes can be modified via software

- **DINNING HALL (SWITCHING/TIME SCHEDULE)**

Lighting will be switched ON/OFF based on timer schedule. Additional intelligent keypad will be provided to enable users to manually override current lighting scene

- **GUEST ROOMS SPLIT A/C (VOLT FREE CONTACT)**

Proposed system to interface with split A/C controllers to issue ON/OFF commands based on quest card setup/position. The system can also control the lights inside the guest rooms should the client wish to include them in the lighting control scope of work

- **EXTERIOR LIGHTING (PHOTOCELL)**

Lighting will be switched ON/OFF based on day/night determined by the system via an external photocell/lux detector. Time schedule can also affect the system response to movement/occupancy based on client requirements (for example, inside working hours, outside working hours).

System can combine input signal coming from internal motion sensors as well to maintain/modify external lighting scene based on client's security/safety requirements.

- **MINIMUM ENERGY EFFICIENCY PERFORMANCE**

- **OPTIMIZE ENERGY EFFICIENCY PERFORMANCE**

2. WATER SAVING AND EFFICIENCY:

Water saving or low flow flush systems that can save about 15 % drop of water consumptions.

- Water saving shower heads, faucets, toilets
- Energy star or A rated washing machines and dishwashers
- Properly connected water sewage treatment
- Low flow shower heads and dual flush toilets will save our hostel over a million liters of water
- Minimum indoor plumbing fixture and fitting efficiency
- Water performance measurement
- Additional indoor plumbing fixture and fitting efficiency
- Water efficient landscaping
- Cooling tower water management

3. EDUCATION IN SUSTAINABILITY MATERIALS, RESOURCES, HR AND STAFF TRAINING

- Sustainable purchasing policy
- Solid waste management policy
- Sustainable purchasing – ongoing consumables
- Sustainable purchasing – electric powered equipment
- Sustainable purchasing – furniture
- Sustainable purchasing – reduced mercury in lamps
- Sustainable purchasing – food/organic

4. INDOOR ENVIRONMENTAL QUALITY

- Environmental tobacco smoke (ETS) control
- Green cleaning policy
- Best management practices program
- Occupant comfort – occupant survey
- Controllability of systems – lighting

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