



ENERGY EFFICIENCY – OPTIMIZING THE HEATING SYSTEM IN MASADA HOSTEL – Israel

SUMMARY

Project description: The replacement of the heating system to save fuel and lower CO2 emission using the nature advantages of the hostel surrounding.

Project type: Energy Efficiency

National Association: Israel Youth Hostel Association

Project location: HI Massada

Estimation of number of reduced tonnes of CO2: 100 tonnes of CO2 per year

Total funds requested: £10,000

Total project cost: £61,000

Annual £ saves and ROI (Return On Investment): We anticipate to return the investment in 2.5 years.

Why this project should be funded ahead of others: The project uses the nature advantages of the hostel surrounding to save fuel and lower CO2 emission. The hostel is a very special hostel, located in a unique place near the dead sea. We are going to use natural resources in order to save energy.



DETAILED PROJECT INFORMATION

Purpose/objectives of the project activity

The main purpose of this system is to increase the energy efficiency of the water heating system in the hostel and to achieve a significant reduction in CO2 emission.

Methodology (How)

The system exist today in the hostel is based on diesel. By changing the system to a new one based on heat pumps and storage containers in the desert area that the hostel is located, we hope to achieve a complete stop of the CO2 emission and to increase the energy efficiency of the hostel.

Monitoring plan

The system is computerized and can monitor and control its activity.



Contribution of the project activity to sustainable development

The main environmental impact of the system is significantly lowering CO2 emissions to the atmosphere. We expect 100% reduction of CO2 emission.

Environmental impacts

Prevention of fuel burning and environment polluting. Using sun energy and the heat in the desert.

Estimations of emission reductions (CO2e tones)

Today we heat the water with 2 boilers each one of them has a 625 KWH. The effectiveness of the new heater pumps is more than 300% bigger related to the present system. We are about to stop using diesel at all. The average usage of diesel in the hostel is about 35,000 liters, if we stop use this diesel we will save about 100 tons of CO2 every year.

Saved Funds and ROI (Return On Investment)

We anticipate to return the investment in 2.5 years.

Communication plan

The hostel in Masada is in an advanced process to get a "Green Label" from the SII (The Standards institution of Israel). We are advertising our sustainability actions to our guests in the hostel and in our newsletter, we will add this subject to this news.

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