

Air conditioning system combined with water heating system – Israel

SUMMARY

Project Description: The main purpose of this new and advanced system is saving energy during the process of heating water for daily use. The system uses the heat produces for the air-conditioning also for hot water in the hostel.

Project Type: Energy Efficiency

National Association: IYHA

Project Location: Youth Hostel Eilat

Estimation of number of reduced tonnes of CO2 per year: 200 tonnes per year

Total Funds Requested: £ 25,000

Total Project Cost: £ 343,000

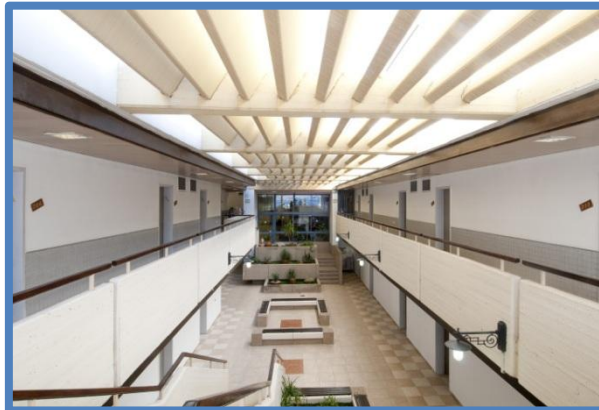
Annual £ saves and ROI (return of investment): £ 21,520 per year; ROI – 16 years

Extra Benefits: By saving energy costs the hostel can re-allocate its sources and use this money to improve its service and to invest in other sustainability projects. "

Why should this project be funded ahead of others?

IYHA is very minded to all environmental subjects. We are doing many efforts to use "Green" products, to save energy and to use environmentally friendly systems.

This system in "Eilat" is very advanced and unique. It allows us to use one compressor to produce heat and then use it for air-conditioning and for hot water supply as well. It saves heating energy. By helping us fund this project we can finance other green projects



DETAILED PROJECT INFORMATION

IYHA is a pioneer in tourism in Israel, working together with Israeli Standards Institute (SII), to get a Green Label for our service. In 2014 we are going to authorize 3 branches, and we will keep authorizing our hostels in 2015.

Every year IYHA invests large amounts in sustainability projects in our hostels and headquarters. This project is taking place in "Eilat" which is one of our biggest and busiest hostels. By saving energy costs the hostel can re-allocate its sources and use this money to improve its service and to invest in other sustainability projects.

IYHA recognizes the importance of energy efficiency and that's the reason we funded the project and we will keep investing in similar projects.

**Purpose:**

The main purpose of this new and advanced system is saving energy during the process of heating water for daily use. The system uses the heat produces for the air-conditioning also for hot water in the hostel

Methodology:

Eilat Youth Hostel has 110 rooms and is a very busy hostel. Hot water is used daily for guests' convenience. The system we started to use in 2012 is a combination of air-condition and hot water supply. The compressor of the air conditioner produces heat, and this heat is used to heat water for shower. This allows us to save the electricity we used in the past for heating water.

Monitoring Plan:

Contribution of the project activity to sustainable development: The system is computerized and it's working according to preliminary data

Environmental Impacts:

The main environmental impact of this system is measured by the fact that we can lower our electricity consumption.

Estimation of emission reduction:

Based on the saving of electricity (kwh) from this system and on Israeli's data for Co2 emission during production of electricity, we assume that this new system saves about 200 tons of CO2 emission per year.

Saving Funds and Rio:

This system saves us about 250,000 kWh each year. In money terms it's about 21,500 GBP per year. ROI is 16 years.

Why should this Hostel be funded?

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This system in "Eilat" is very advanced and unique. It allows us to use one compressor to produce heat and then use it for air-conditioning and for hot water supply as well. It saves heating energy.

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