



## The University of Jordan -UJ- (Jordan)

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# CASE STUDY 1

## Solar Cafeteria at the University of Jordan

### Objectives:

- *To Show the practical applications of solar energy technologies and to identify the actual impact of these applications.*
- *Use of solar energy converted to thermal energy for water heating in the solar cafeteria first and then at home and in institutions, companies*
- *Use of solar energy converted to thermal energy through the solar dishes to be learned from this temperature in the heating and winter cooling in summer as well as water heating.*

# CASE STUDY 1

## Solar Cafeteria at the University of Jordan (Objectives)

- *Use of solar cell technology for power generation systems either individually (Standalone) or cross-linked to the national grid (Commotion Grid).*
- *It also aims to increase the awareness of student's bodies at the university of Jordan about the utilization of renewable energy in different life aspects.*
- *The next stage of the solar cafeteria is to utilize the wind energy as a hybrid system with PV so that it can be operated efficiently in summer and in winter*

# CASE STUDY 1

## Solar Cafeteria at the University of Jordan

### **Responsible body**

*The University of Jordan- Energy Centre*

### **Location**

*At the University of Jordan, Amman- Jordan, court of the deanship of students affairs, the area of solar cafeteria (30) square meters, under the auspices of the Center for Energy*

# CASE STUDY 1

## *Solar Cafeteria at the University of Jordan*

### *Reason of interest in relation to ENEPLAN project*

*Solar Cafeteria had been selected as a case study since its directly connected to Renewable Energy and Energy efficiency and expresses a successful pilot project implementation in the field of Solar Energy at the University of Jordan.*

# CASE STUDY 1

## Solar Cafeteria at the University of Jordan (Project Summary)

- ❖ *The solar cafeteria has successfully demonstrated the effects that renewable energy can have on lifestyles and the environment through its total use of solar power.*
- ❖ *The creation of the solar cafeteria by the Energy Center at the University of Jordan aims to disseminate knowledge and culture concerning the multiple uses of solar energy to students and the community through the use of different solar technologies.*
- ❖ *In the solar cafeteria, solar cells are used to generate electricity, solar thermal collectors are used for all heating, and solar ovens with a 15kg capacity, are used for food preparation.*
- ❖ *The utilization of various solar energy technologies encourages eco-tourism and the fight against desertification, particularly in remote areas where it can replace local dependency on firewood for cooking.*



## CASE STUDY 2

### *The Embassy Building of the Kingdom of the Netherlands*

#### *Objectives:*

*The main objectives of the project were to establish a green building strategies that could be applied in climates similar to that of Jordan. Once we were able to offer a case study and to monitor the performance with acceptable results. We are able to establish a group of environmental design guidelines that could be applied within Jordanian localities.*



## CASE STUDY 2

### *The Embassy Building of the Kingdom of the Netherlands*

*Responsible body*

*The Government of the Netherlands.*

*Location*

*Location: Amman, latitude 32 N, Longitude 36 E.*

## CASE STUDY 2

### *The Embassy Building of the Kingdom of the Netherlands*

#### *Objectives:*

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## CASE STUDY 2

### *The Embassy Building of the Kingdom of the Netherlands*

#### *Reason of interest in relation to ENEPLAN project:*

*The main objective beyond selecting this case study is that the argument beyond energy and environment is translated directly and indirectly into this study.*

*All the issues of harmony among environment, energy and architecture are gathered in this case study, energy consumption, reducing solid wastes, reducing environmental deterioration are all concepts that are obvious in this case study.*

## CASE STUDY 2

### *The Embassy Building of the Kingdom of the Netherlands (Project Summary)*

*Design Concept: An existing villa was converted into the Dutch embassy offices.*

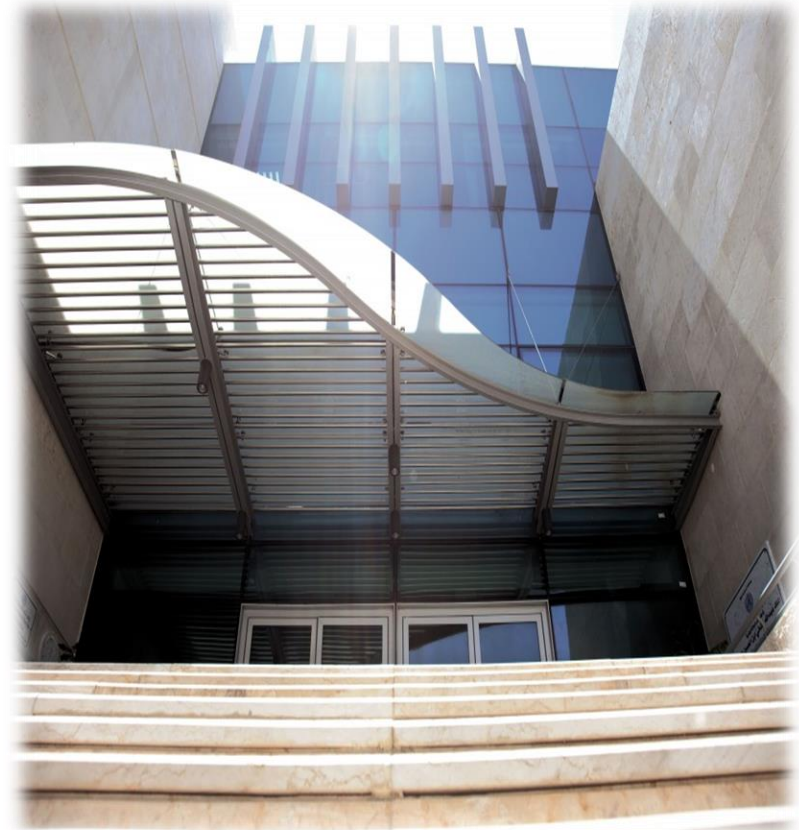
*The existing basement And ground floors were kept with minor alterations.*

*A steel structure carries a new glazed pavilion (parasol system) containing new office spaces were added above the existing structure.*

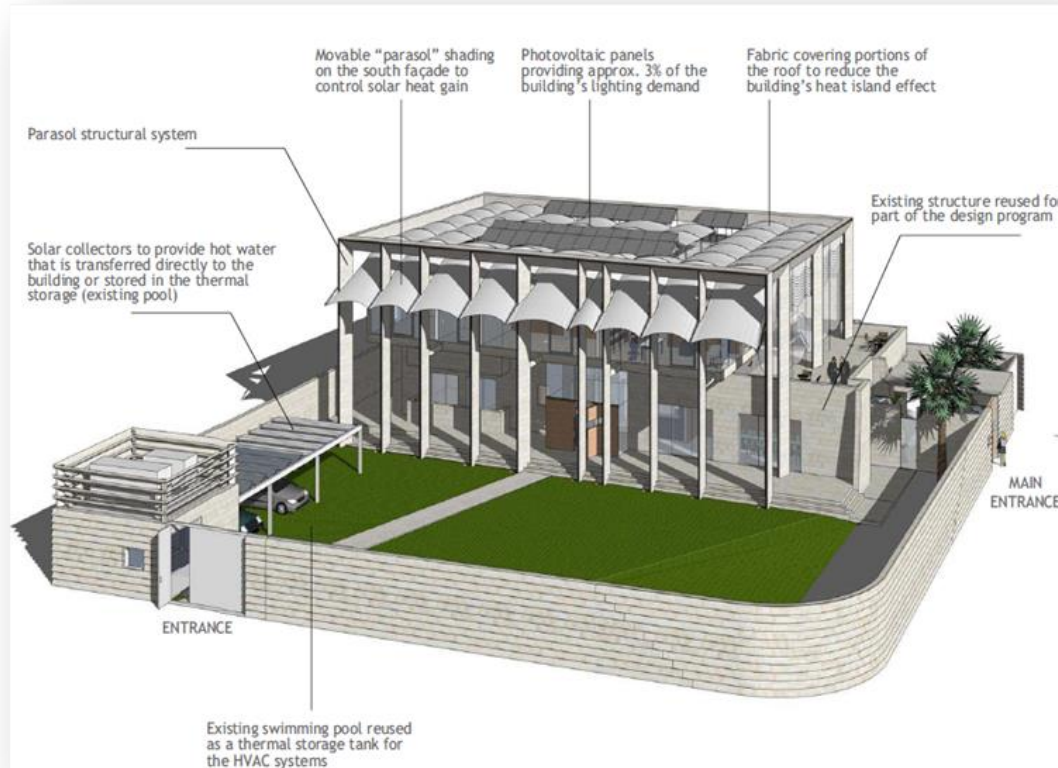
*floating stone Plates were fixed on the roof. Each plate is tilted in different direction so that there are enough spaces Between them for natural ventilation.*

*A number of ventilation holes were also placed on the roof. They Include skylights to maximize daylight inside the building*

## CASE STUDY 2



# CASE STUDY 2



***Thank You.***