

DESIGN OF A SOLAR POWER SYSTEM
FOR A COUNTRY HOUSE

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Design of a solar power system for a country house.

The object of the project is to identify the energy needs for a country house, in Platres, and design a suitable solar system for the electrification and hot water production of the house. Also to investigate the methods and techniques currently used, for the thermal and photovoltaic conversion of solar energy and the methods of storage.

The general information about the principals of operation of the thermal and photovoltaic conversion of the solar energy, in chapter I, help the reader to go through the project more easily, and understand it clearly.

Proceeding further, the reader is able to understand the method used to determine the sizes of the solar and auxiliary components, by going through a number of detailed calculations. The method used is one of the best methods for photovoltaic system sizing.

At the end, a cost analysis is done. The system used is compared with other similar systems and a final conclusion of whether the photovoltaic conversion of solar energy into electricity, is applicable and profitable, arises. At the end the reader is able to make his own conclusions for that new power source.

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