

Energia Solar Fotovoltaica

Home assignment

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1 Homework

Design a stand-alone system for a customer in your hometown. The inclination of the modules depends on the on the available roof. Use real data for the equipment considered, i.e. modules, charge regulator, inverter, batteries (include datasheets). Consider the load described in the table below.

Equipment	Power	Usage
5 lights	20 W	4 h/day
2 lights	60 W	1 h/day
Fridge	125 W	12 h/day
Freezer	125 W	12 h/day
Iron	1 kW	½ h/day
TV	60 W	4 h/day
Washing machine	2.2 kWh/cycle	Twice week
Dish washer	1.9 kWh/cycle	Once a day

NOTES:

- 1- Prepare your report as if you were working in a company selling PV systems. Your report is for your customer.
- 2- Maximum pages 5. No need for introductions about PV and so on. Go directly to the system design.
- 3- In your package delivery you must include: the report; the excel files with your calculations and the datasheets of the components you propose.
- 4- Costs are not required.