

Parameterization of solar energy in Goa,India

Simple living high thinking way of life

Sunitt Shantanu Digamber Fulari
ECE department National Institute of technology, Goa

ABSTRACT

The objective behind this research work is to give not just any theory but a practical view of the current market to its viewers.

Introduction: Solar energy is widely available in Goa and the government provides a lot of subsidy in which the money which is obtained is more than the money which is invested. Per kilowatt we obtain more than fifty four thousand rupees in grant from the government, which means if there is a 5-6 bhk house which is fully airconditioned with all the modern amenities and billing monthly 5000 rupees than we will require 10 kilowatts of power solar energy setup. Per kilowatt if we obtain fifty four thousand rupees than we will get five lakhs and forty thousand rupees in subsidy which fulfills more than 90% cost for 10KW setup.

Renewable energy

Renewable solar energy is the way to go for modern systems. Government has come up with so many schemes to support this setup. A inverter for 10KW costs around 80-90 thousand with 5 years full coverage warranty and the solar panels come with 25 years warranty which are made up of silicon semiconductor.

Solar panels?

36 solar panels will be required for this 10 KW setup costing totally

Every solar panel will weigh 20kgs maximum per square metre

During the day of 6 hours of solar energy the setup will be powered and the excess energy will be stored in battery. Inverter will convert the DC energy to AC energy.

Direction of solar panels?

The solar panels will be south facing, which means the sun will be rising from the east and the sun will power the panels for maximum 4-5 hours which is easily available during 8 months of the year in Goa.

Profitable business?

If we setup a 100KW setup covering 400Square metres than according to the government policies we will get 58000 per kw as subsidy within 1 year and this setup is very cost effective as it costs 36000 per kilowatt and will cost 36 lakhs rupees and in return we obtain a electricity setup and 58 lakhs rupees in subsidy.

The cost of the setup model for the solar setup is as follows.

58000 per KW 10KW

80000 per KW 3KW

36000 per KW 100KW

40000 per 50KW

50000 per 20KW

There will be 5 years warranty on inverter and 25 years warranty on solar panels.

The panels are hard toughened unbreakable glass.

So with these above details and the availability in the market the setup will be completed in 1 months time maximum.

Hope you all switch to renewable energy.

Conclusion:In this paper we have briefly explained the current market of solar renewable form of energy in Goa,India amd the subsidy given by the government.

References:

[1]Major help being from the local and national solar panel dealers.

