

Solar Panel

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Abstract; Solar panels are devices that generate an energy that utilizes the power of light coming from the sun and convert them to power that create an electrical load, which then can be used for heating, lightings, and other form of electrical needs.

I. INTRODUCTION

Solar panels are an electric generating device that can be used for a wide variety of circumstances, such as in residential houses, remote areas, offices and technical equipment in a cost efficient and optimizing manner.

II. TECHNICAL BACKGROUND

Solar panels are made of group of individual solar cells that generate a negative and a positive charge that create an electrical current., causing to create energy on an electrical form. This entire process is known as photovoltaic effect. It gathers a clean energy and turns them into electricity

III. PROS AND CONS

➤ *Pros:*

- Very efficient way to create electricity
- Cost optimization
- Clean and renewable source of energy
- Minimum maintenance required

➤ *Cons:*

- Initial installation can be expensive
- Less efficient in cooler areas

IV. EXAMPLES AND CURRENT USES

A: In powering Houses:

In an organized connected configuration, the energy from the solar panels can sufficiently power houses at full capability, resulting in becoming a great cost saving solution in the longer term and an incredible option for clean renewable energy.

B: Charging devices:

A solar panel has the capabilities to power portable devices and charge them on the get go, as they also charge devices at home

C: Lightings:

One of the main uses of the solar panels is the day to day light generation at either homes and elsewhere, which will greatly contribute in a lower bill cost.

D: Portable Refrigerators:

Portable refrigerators can be powered using energy from the solar panels which can be utilized during picnics and outdoors events

E: Operating A/Cs:

Operating air conditioners using Solar panels will allow to cool houses using the solar energy during the day when it's needed the most and will also reduce the electrical load when the air conditioners are utilizing the electrical grid.

V. CONCLUSION:

The demand on electrical usage and the need to find a cost efficient and reliable source of energy has resulted on an increase of the solar panel devices, which is a positive news for a more sustainable and clean energy which will help to fight climate change. So solar energy is a cost-effective means of energy which is very useful especially with a larger number of users at either homes, offices or elsewhere.

REFERENCES

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