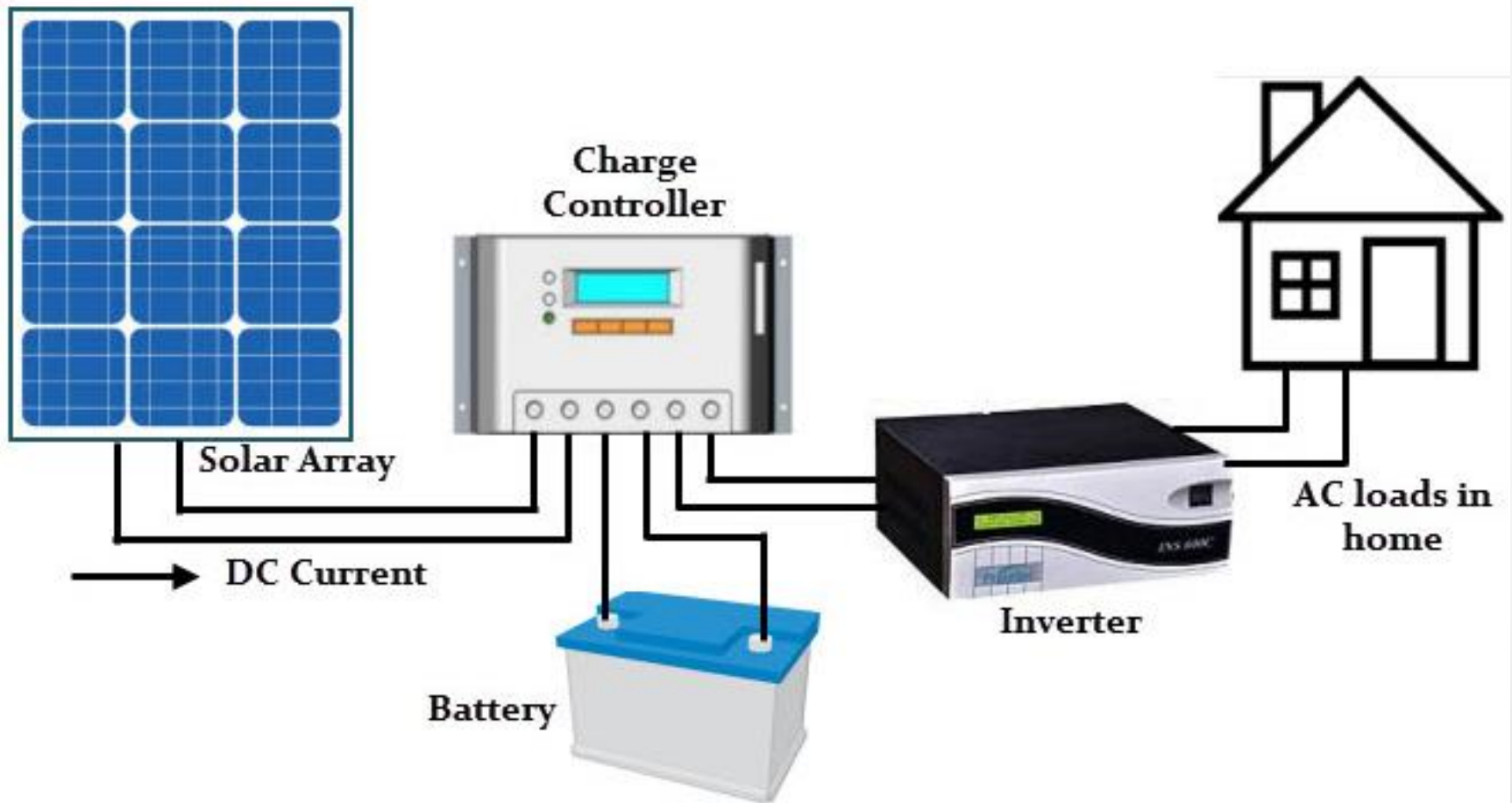


SOLAR ENERGY



SOLAR POWER GENERATION



Introduction to Solar Energy System:

- ❖ A solar power plant is an arrangement of various solar components, including a solar panel to absorb and convert sunlight into electricity.
- ❖ A solar inverter to convert the electricity from DC to AC while also monitoring the system, solar batteries, and other solar accessories to set up a working system.



Types of Solar Energy System:

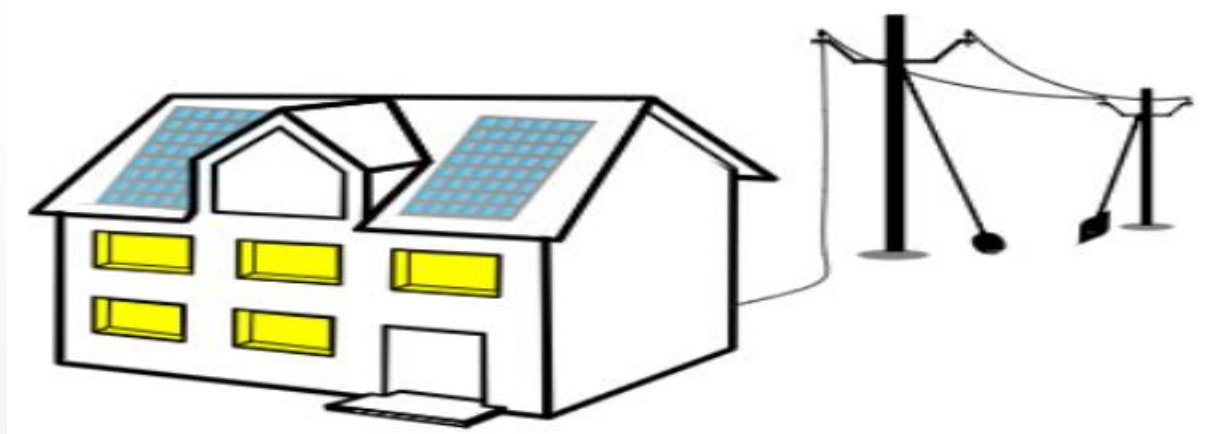
❖ On-Grid Solar Energy System

❖ Off-Grid Solar Energy System

❖ Hybrid Solar Energy System

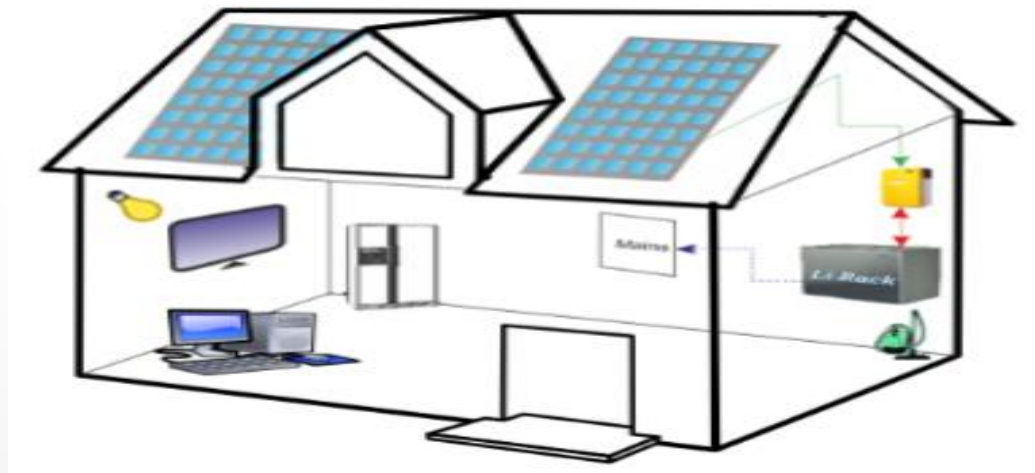
On-Grid Solar Energy System:

- On-grid or grid-tied solar system is a system that works along with the grid. If any excess or deficiency of power can be fed to the grid through net metering.
- Many residential users are opting for an On-grid solar system as they get a chance to enjoy credit for the excess power their system produces and save on their electricity bills.



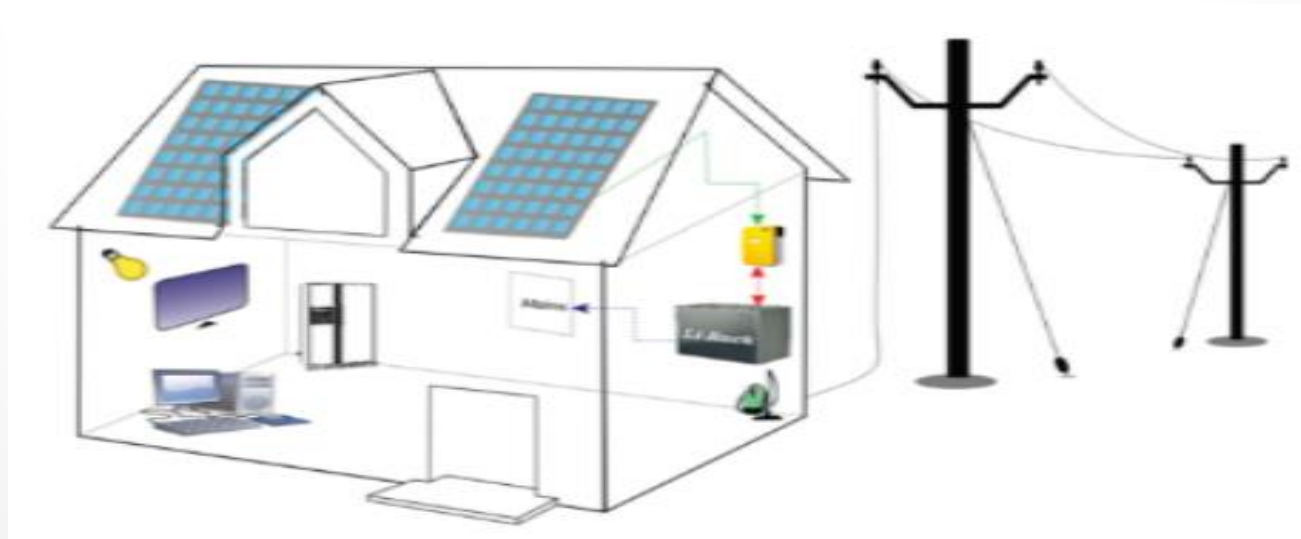
Off-Grid Solar Energy System:

- ❖ An off-grid solar system always provides electricity. It requires battery storage and an inverter.
- ❖ The addition of an inverter allows the system to convert DC (Direct Current) coming from the batteries into AC (Alternating Current).



Hybrid Solar Energy System:

- A hybrid system is when your solar panels remain connected to the grid's power lines and have a backup battery system to store excess power.
- The sun's energy absorbed by the solar panels goes through an inverter to create usable electricity. From there, electricity goes to your home, your battery, or the grid.



Applications of Solar Energy System:

Solar Water Heating



Solar Distillation



Solar Electric Power Generation



A photograph of a forest with sunlight streaming through the trees, creating a warm, golden glow. The sun is positioned in the upper right, and its rays fan out across the scene. The trees are tall and thin, their trunks visible in the foreground and background. The ground is covered in grass and low-lying plants, some of which are illuminated by the sunlight.

THANK YOU

REMEMBER TO USE SOLAR POWER WISELY