



ABNER POWER ENERGY PRIVATE LIMITED

Business Profile

Contents:

Summary	2
Vision	3
Service Description	4
Grid Ties (Without Battery)	4
Off Grid (With Battery)	5
Utility Scale Project	6
Solar Hoarding	7
Solar Street Light	8
Biomass Briquettes	9
Charcoal Briquettes	10
Advantages of Renewable Energy	11

VISION

Renewable Energy Sector

The world is aware of the effects of global warming and resource exhaustion. Clean and Green Energy is the need of the hour. Our Management, with a view to contribute its share, has tried to work in the field of renewable energy. This venture will help in promoting green and renewable energy in order to help in reducing the problems associated with energy consumption and the greenhouse effect. We provide safe, reliable, and clean energy, which will benefit our world and our children.

By considering the climatic conditions of Maharashtra, it is very much favourable for harnessing of solar energy. As per survey by our business development team, we have found huge potential for the solar energy segment as well as combination of energy storage system based on solar energy. We have the world class technology, products and solutions for MW scale Solar PV Projects & Roof Top Grid & off Grid Connected projects in association with our technology partners and manufacturers from USA and Europe.

Sources of Competencies

Expertise in Planning, Designing and implementing cost effective energy solutions

Expertise in Electrical Engineering

Project Management & Execution : Bankable Solar Project

Techno economic pre-feasibility and feasibility studies, executive design

Value Engineering & Localization : Cost Optimization

Adoption of latest globally recognized technologies – Systems, processes & ERP

Services Description in Solar Rooftop Projects

GRID TIED SOLAR ROOF TOP (WITHOUT BATTERY)

While there are many configurations for solar rooftop power systems, Grid connected systems have gained momentum and popularity mainly in urban areas. The system is interfaced with the power utility grid. Here, Solar PV system takes the first priority to run the loads. The excess power, if generated will be exported to the power grid. In case of deficit of solar power, the differential power is drawn from the power grid. In this system, a bidirectional meter is installed to measure the net energy (Net metering).

Grid-connected PV systems are the most popular solar electric system in the market today. It is the least expensive and lowest-maintenance option. Even though the technology behind grid connected solar energy seems complex, in reality it is not so. It is quite simple.

These Guidelines for grid-connected small scale (rooftop) solar PV systems have been prepared for the benefit of departments and organizations of the Government of Maharashtra that plan to install these systems for their office buildings. This document is a guideline document only and the Government Departments and Organizations may make suitable modifications to these documents to meet their specific (process) requirements.

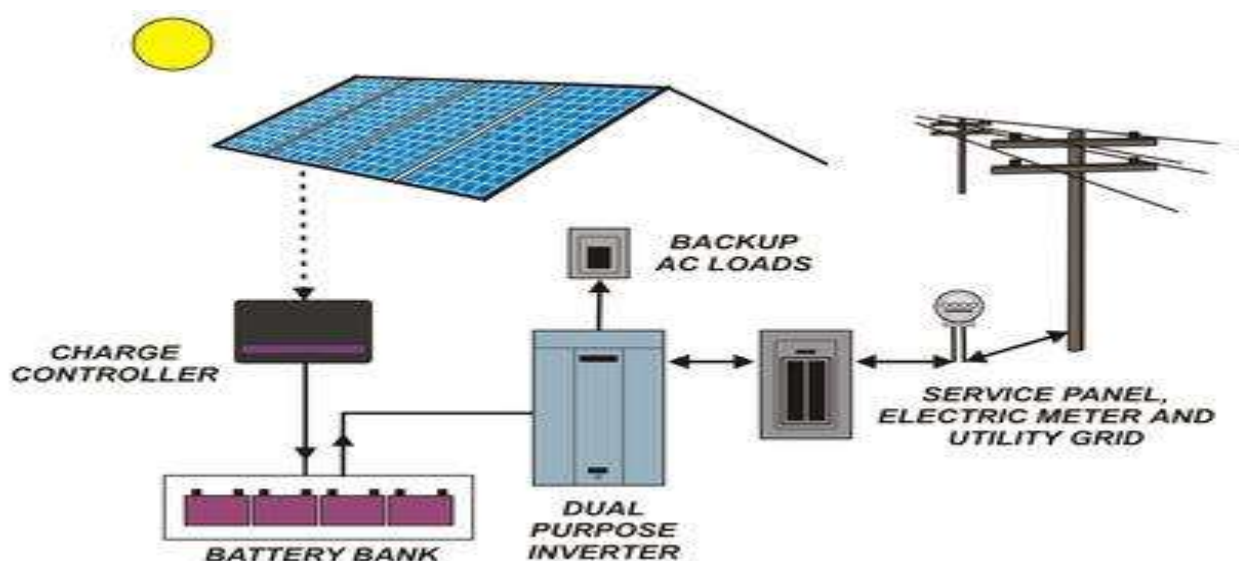
SYSTEM COMPONENTS:

A grid-connected solar PV system consists of the following main components:

- Solar PV (photo-voltaic) array
- Solar PV array support structure
- Solar grid inverter
- Protection devices
- Cables

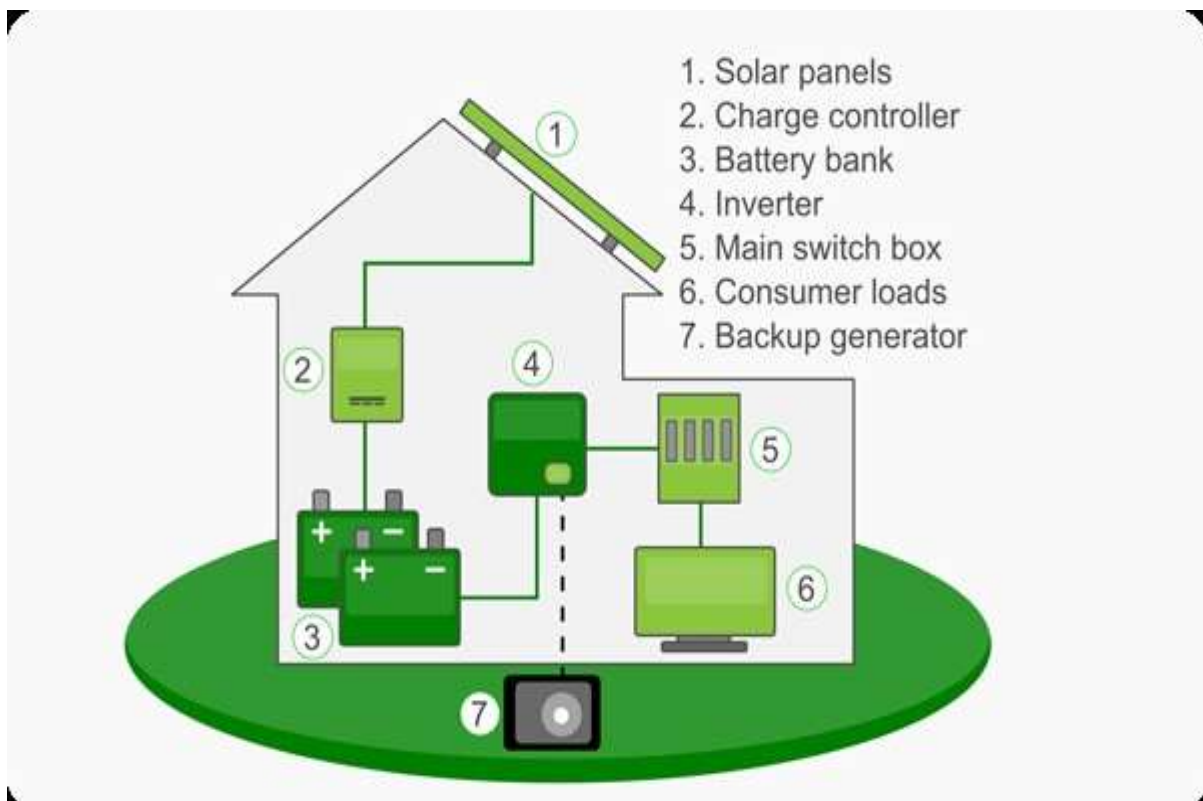
SOLAR PV SYSTEM CAPACITY SIZING:

The size of a solar PV system depends on the 90% energy consumption of the building and the shade-free rooftop (or other) area available.



OFF GRID SOLAR ROOFTOP (WITH BATTERY)

We provide all kinds of design consultancies and installations for Off-Grid solar power. Typical installations include from 100 W to 10 kW off grid systems. Off grid power plants are best suited for hilly and remote areas. It is the only solution for areas where state power grid is inaccessible or unfeasible. Abner off Grid High Performance Systems were designed and engineered by using industry leading components to produce the most advanced, reliable and cost effective system on the market. When off grid, efficiency and reliability are paramount and a Abner High Performance System will give you the peace of mind knowing that your energy requirements are being supplied by the most advanced solar PV system on the market at the most competitive price possible. We have carefully designed and integrated all components to ensure a reliable, safe, and code compliant off grid PV system. An off grid unit can be a single light or can run into many kilo watts. Off grid units or power plants invariably has a battery bank to store energy. The power plants are designed and configured to service the loads directly by sun power during the sun shine hours. The excess energy will charge the battery bank. The energy stored in the battery bank is used during the non-sun shine hours. The quality of power will be far superior to state grid power since later has many distortions. With the fall in battery prices and rapid advancement in battery technology, off grid solutions are proving more feasible and profitable. It is predicted that very soon off grid solar power will be economically on par with grid power (Grid parity).



UTILITY SCALE PROJECT

Although it currently represents a small percentage of global power generation, installations of solar photovoltaic (PV) power plants are growing rapidly for both utility-scale and distributed power generation applications. Reductions in costs driven by technological advances, economies of scale in manufacturing, and innovations in financing have brought solar power within reach of grid parity in an increasing number of markets. Continued advancements and further cost reductions will expand these opportunities, including in developing countries where favourable solar conditions exist. Policy environments for renewable energy in the developing world are being refined, drawing on the lessons learned from the successes and failures of policies adopted in first-mover markets. We now see several regulatory models being successfully deployed in the developing world with consequent increase in investment and installations. Solar is proving to be viable in more places and for more applications than many industry experts predicted even a few years ago. At the same time, this rapid market growth has been accompanied by an observed uneven expertise and know-how demonstrated by new market entrants. Building capacity and knowledge on the practical aspects of solar power project development, particularly for smaller developers, will help ensure that new PV projects are well-designed, well-executed, and built to last.

- Designing, Engineering & Turnkey execution of commercial & industrial electrification work
- Feasibility Assessment of projects
- System layout design
- Cost estimation
- Detailed Engineering drawings.
- Power Systems Studies



SOLAR HOARDING LIGHTING

FEATURES :

Cost Effective 100% Sun Powered No Electricity Bills Online Monitoring 24 Hrs.
Unlimited power supply for the unit.

APPLICATION :

Hoarding Lights, Highway Signs, Gate & Main Entrance.
Extra offers cost effective Solar Hoarding light. We design and customize solar hoarding lighting system for each project depending on size, location and area. Traditional hoarding lighting system has high installation and operation cost, one has to pay regular electricity bill and power consumption is also high. On the other hand a solar hoarding light is extremely affordable, with very low installation costs, and almost negligible maintenance. Within just a few years, the solar hoarding light will have saved you enough money to have completely paid for itself.



SOLAR STREET LIGHTS

Abner Power Energy Pvt Ltd is one of the leading Suppliers of LED Lights, LED Street Lights, Solar LED Street Lights, Commercial Led Lights and LED Flood Lights in Maharashtra, India.

- Solar LED Street Lights: Solar street lights are raised light sources which are powered by photovoltaic panels generally mounted on the lighting structure. The photovoltaic panels charge a rechargeable battery, which powers a fluorescent or LED lamp during the night.
- Most solar panels turn on and turn off automatically by sensing outdoor light using a light source. Solar streetlights are designed to work throughout the night. Many can stay lit for more than one night if the sun is not available for a couple of days.
- LED Street Lights: An LED street light is an integrated light that uses light emitting diodes (LED) as its light source. These are considered integrated lights because, in most cases, the luminaries and the fixtures are not separate parts .An LED Street light is an integrated light that uses light emitting diodes (LED) as its light source. These are considered integrated lights because, in most cases, the luminaries and the fixtures are not separate parts.

The current trend is to use high power 1 watt LEDs. The shape of the LED Street light depends on several factors, including LED configuration, the heat sink used with the LEDs and aesthetic design preference. Heat sinks for LED street lights are similar in design to heat sinks used to cool other electronics such as computers. Heat sinks tend to have as many grooves as possible to facilitate the flow of hot air away from the LEDs. The area of heat exchange directly affects the lifespan of the LED Street light.



BIO FUEL SECTOR

BIOMASS BRIQUETTES:

Biomass Renewable energy can be generated in a number of ways. Agriculture waste, industrial waste and forestry and squashed under high pressure but without any binder so it is known as binder less technology. The biomass briquetting machine is the only way through which can make solid fuel We are one of the most promising **Industrial Biomass Briquettes** Suppliers in Maharashtra.

We are offer exclusive quality pre-treated briquettes. Our briquettes are highly admired by our customer for its excellent quality. This has enabled us in procuring large number of customer all over the Maharashtra. The industrial grade Briquettes supplied by us have a wide application in various industries for their respective industrial purposes. We are manufactures these Biomasses Briquettes and make use of the best quality raw materials and latest designing technology. Widely acclaimed for excellent quality, these Industrial Briquettes are surely the best choice available in the markets.

We are preferably offer material is very high calorific value up to 4400k , very low moisture contents and ash content as compare to other Biomass raw materials.



CHARCOAL BRIQUETTES

Fuel is a lifeline of man & machine. It is necessary for day to day life for everyone. Pollution depends on Natural Fuel line Coal, Natural Gas, Kerosene, Diesel etc. & Natural Fuel is under limitations nowadays. Their prices are not under control for everyone. So, it is necessary to require option on above cited fuels. The briquettes are a very convenient product that can be used like ordinary piece of charcoal grills and homemade or industrial furnaces. Charcoal renewable energy can be generated in a number of ways. Agricultural waste, industrial waste and forestry waste gathered and squashed under high pressure but without any binder so it is known as binder less technology. The **Charcoal Briquetting machine** is the only way through which can make solid fuel.



Advantage of Solar Energy

- Energy is a Clean and Renewable energy source.
- Once a solar panel is installed, solar energy can be produced free of charge.
- Panel life is 25 Years.
- Renewable energy will last forever whereas it is estimated that the world's oil reserves will last for 30 to 40 years.
- Renewable Energy causes No Pollution.
- Very little maintenance is needed to keep the system running.
- There are no moving parts in solar system which make it impossible rally to damage them.
- In the long term, there can be a high return on investment due to the amount of free energy a solar panel can produce, it is estimated that the average household will see more than 50% of their energy coming in from solar systems.
- Net Metering on systems. (Govt. gives rebate on extra generation).
- Accelerated depreciation (A.D.) benefits on Income Tax.
- Government Support through various Subsidies.