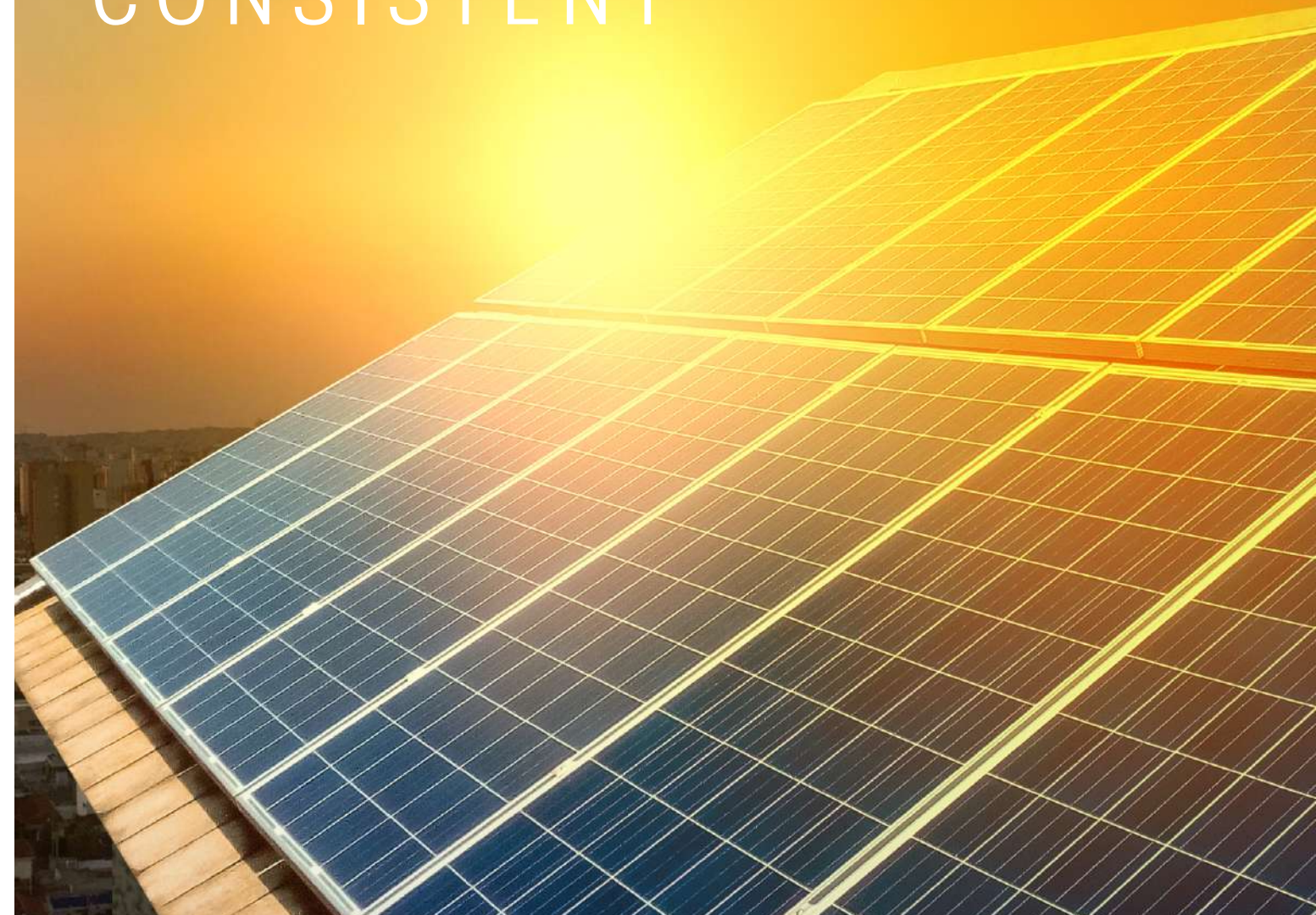





SUSTAINABLE
RELIABLE
CONSISTENT



18/752 A - 1 PV Swami Road Near Gnapath Boys Highschool
Chalappuram, Kozhikode - 673002

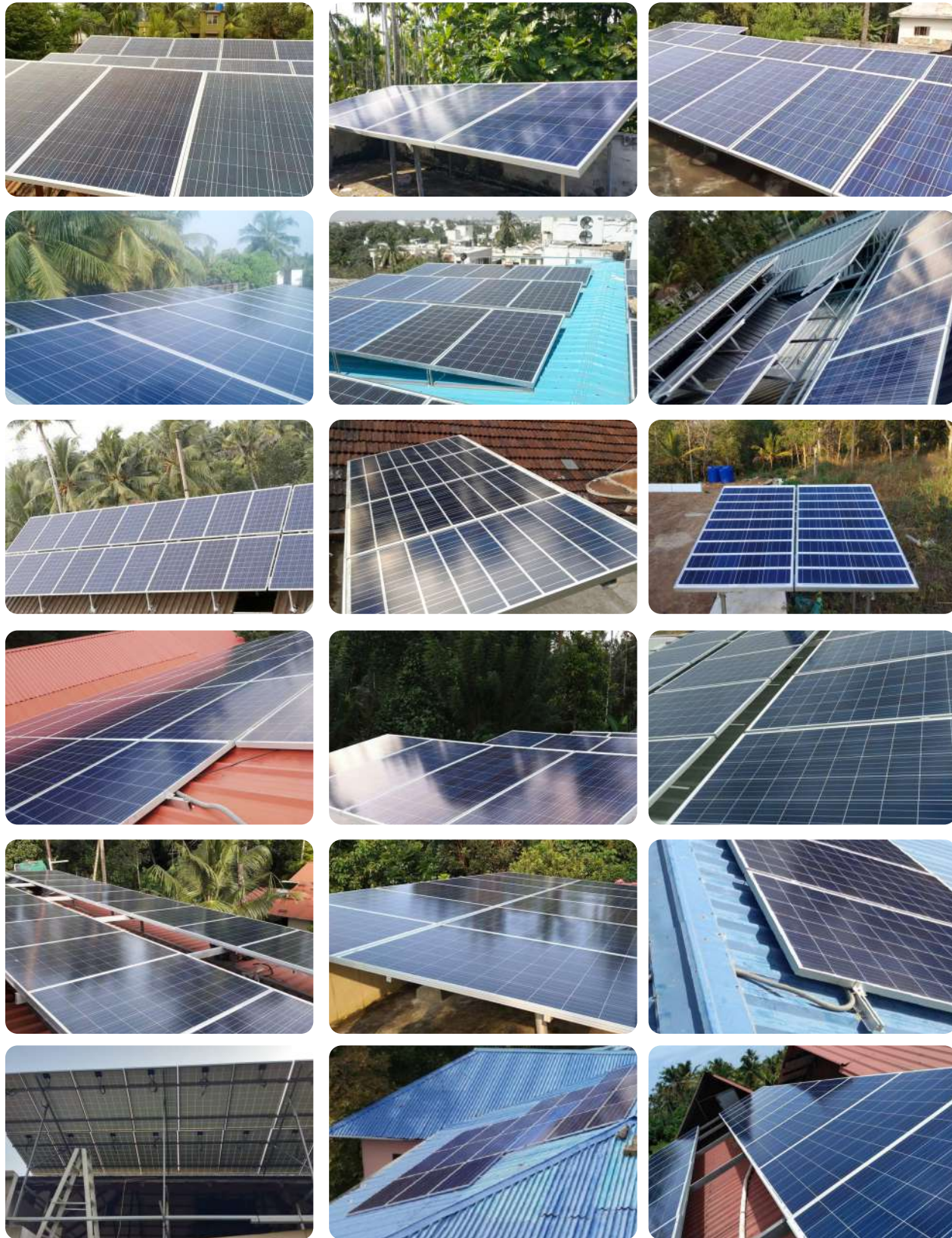


Future of **Green** Energy Systems

LET'S JOIN HANDS FOR A
GREEN ENERGY FUTURE



Our Work



ABOUT US

We started as a company in the year 1990, initially by carrying out the installation and servicing of inverter power systems. And then started developing own technology and manufacturing of inverter and battery units with best quality and thereby gaining the market.

We made our debut into the Renewable Energy industry in the year 2014, by commissioning On grid, Off grid and Hybrid Solar power generation projects. Till now we have completed nearly 500KW solar power generation units with best working and good customer feedback. We acknowledge our gratitude to all our customers, distributors and supporters for making us lead in the energy sector.

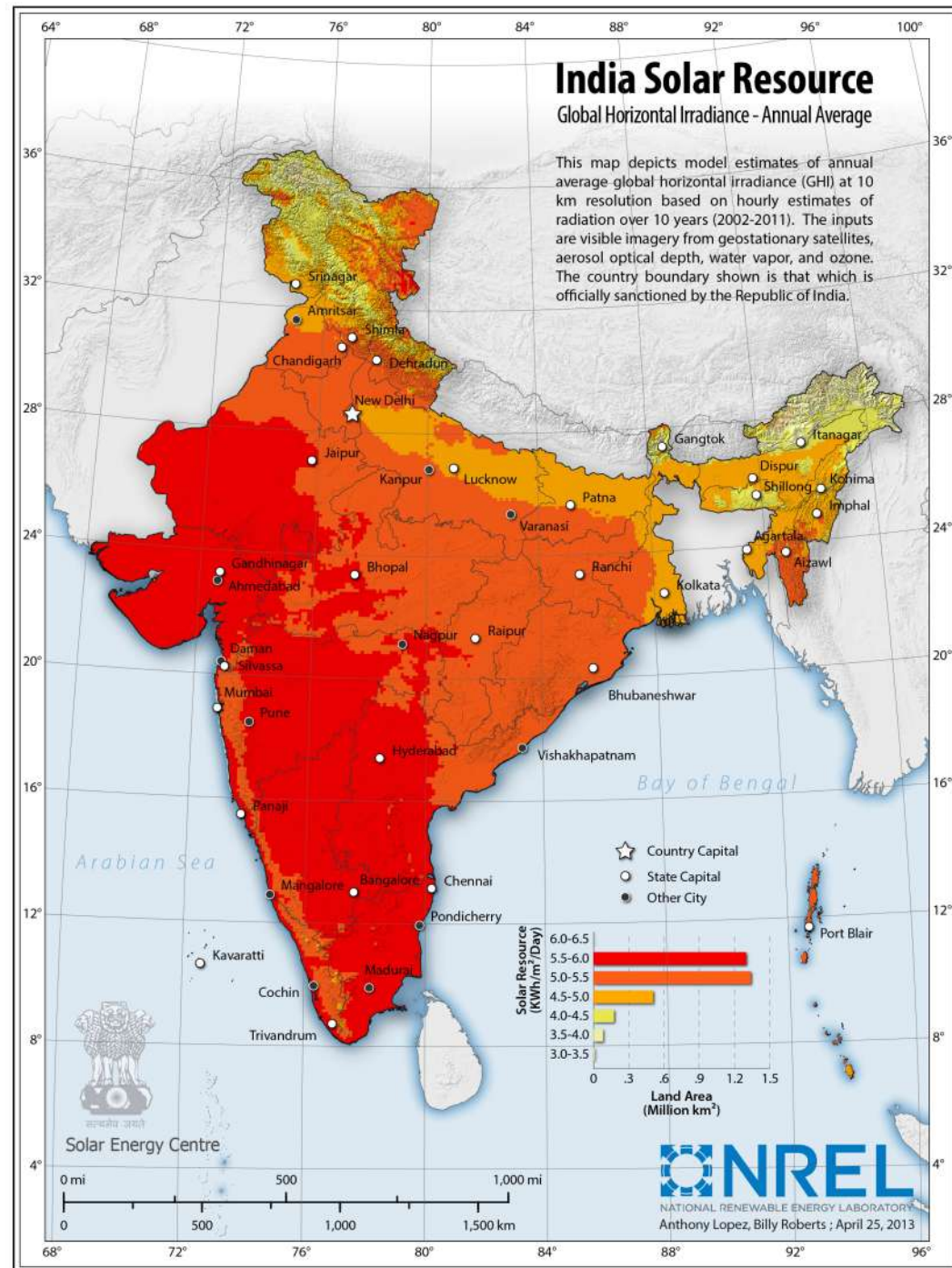


WHY INDIA ?

As per the International Energy Agency's (IEA) Renewables Report, Solar and Wind represent 90% of the country's capacity growth, which is the result of auctions for contracts to develop power-generation capacity that have yielded some of the world's lowest prices for both technologies. The country, which presently has low conventional energy resources in comparison to the energy needs of the huge population and the swiftly growing economy, can foster the enormous potential of solar energy. Under the leadership of Prime Minister Narendra Modi India is committed towards the development of renewable energy infrastructure. The 175 GW target for 2022 and the formation of ISA led by India and France is another example of the same. Apart from solar, the country is also exploring hydro power potential in the north-eastern states which are an abode to the hydro power opportunities.

With the right investments in such green technologies, India is well positioned to achieve all this. This is significant given India's burgeoning electricity demand and the persistent supply demand gap along with the summer shortages and outages, the pursuit towards cleaner energy sources will have a crucial role in enabling the country's transition to a fully sustainable energy system. Ensuring those projects secure the necessary financing to enable that development, however, remains a challenge, with a large proportion of Southeast Asian projects considered unbankable. The bankability of renewable energy projects has always been an issue owing to off takers' inability to absorb power and pay for it.

INDIA - METEOROLOGY DATA



SOLAR IRRADIANCE FOR INDIA

INDIA'S FUTURE IN RENEWABLE ENERGY

- Energy efficient buildings (using solar technology)
- Electric vehicles
- Charging bays for electric vehicles and units
- Solar powered boats
- Solar powered desert camps
- Solar energy utilization for construction sites
- Thermal energy generation using Solar technology
- Reduction in Carbon footprint
- Drones for transportation/ surveillance
- Solar powered transportation for public
- Powering- Water theme parks
- Solar energy utilization for agriculture
- Solar powered air conditioning units
- Floating solar plants for beautification and energy production
- Waste management and energy production
- Reduced carbon foot print
- People will enjoy the benefits from renewable energy and economic saving
- Living standard and health value goes up



FLOATING SOLAR POWER PLANT

Components

PV panels.
Floating unit.
Guide ropes.
Maintenance and cleaning path.

Benefits

Space required is utilized over the water.
Reduction in amount of heat generated and thereby increasing efficiency
Ease in cleaning panels.
Can be developed to floating relaxation units like small hut.

SOLAR AIR CONDITIONING UNIT

Components

Solar collector.
Storage tank.
Heat exchanger.
Air conditioning unit.

Benefits

Reduced Energy consumption.
Can be used in construction sites and outdoor recreation areas.
Easy to maintain.

SOLAR CARPOTS

Components

Structure.
Solar panel.
Electrical units.

Benefits

Energy yielding from a quite promising area.
Can be used for charging electrical vehicle.
Utilization of space in a proper way.

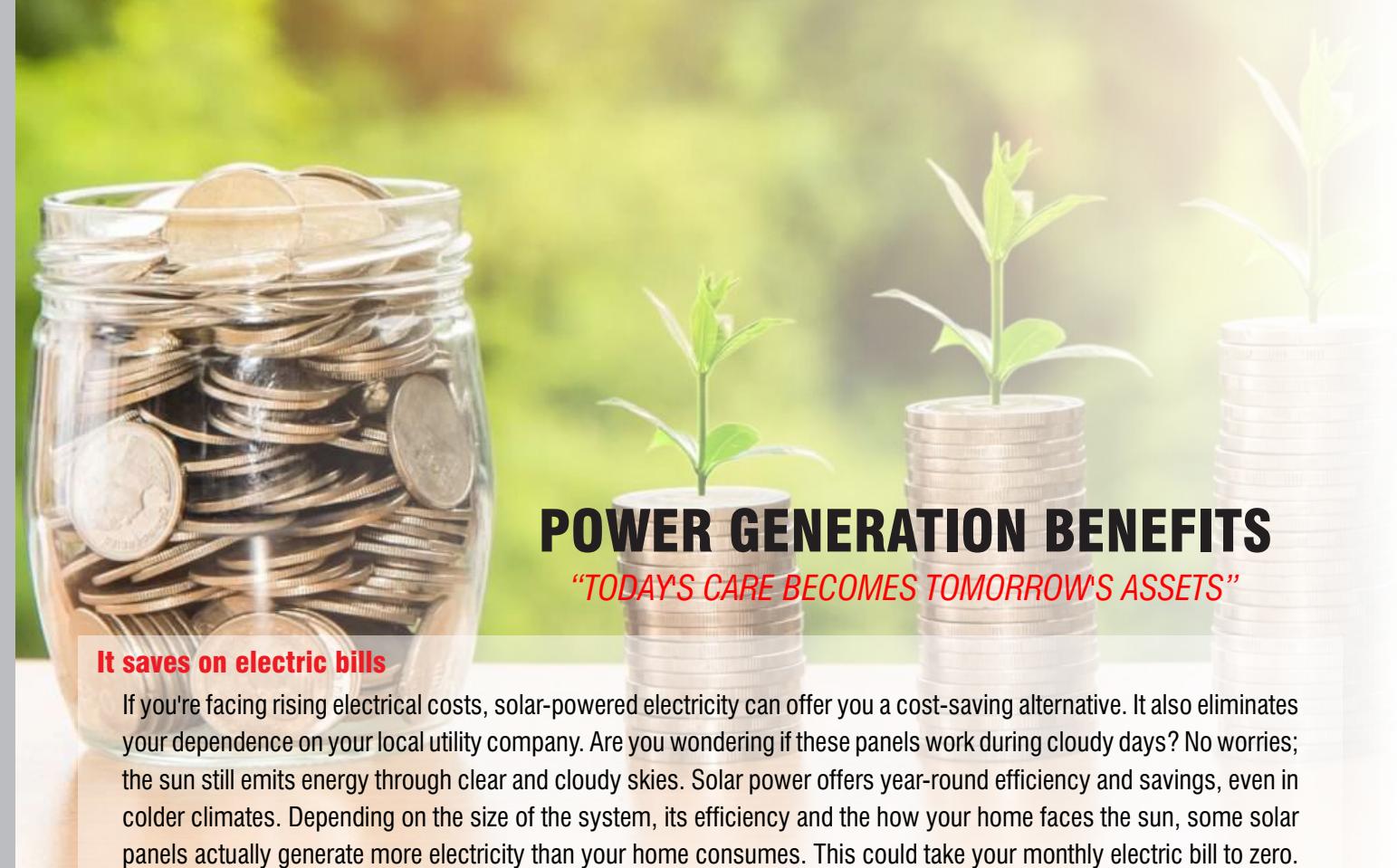
SOLAR POWERED BUS WAITING UNITS

Components

Solar panels.
Battery.
LED lighting units.
Mobile/ Laptop charger.
Solar cooling unit.
Bin for clean surrounding.
Space for advertising with lights.
CCTV facility.
Wifi connectivity.

Benefits

Surveillance 24 hours.
Emergency helpline.
Relaxation units.
Can include information boards.
No need of electrical power.



POWER GENERATION BENEFITS

"TODAY'S CARE BECOMES TOMORROW'S ASSETS"

It saves on electric bills

If you're facing rising electrical costs, solar-powered electricity can offer you a cost-saving alternative. It also eliminates your dependence on your local utility company. Are you wondering if these panels work during cloudy days? No worries; the sun still emits energy through clear and cloudy skies. Solar power offers year-round efficiency and savings, even in colder climates. Depending on the size of the system, its efficiency and the how your home faces the sun, some solar panels actually generate more electricity than your home consumes. This could take your monthly electric bill to zero. You can actually qualify for a rebate from the Electricity board, if your solar power system produces excess electricity. This depends upon the area you live in, so check with your area's solar power guidelines.

Cost of going solar has dropped

The cost of solar power has dropped dramatically in recent years. Many home owners who are planning to sell in a few years, could make a smart investment by retrofitting with solar panels today. Panels require almost no maintenance, since there are no moving parts to break down. Plus, newly designed solar panels have slim profiles and sleek trims that blend much more seamlessly with traditional roofs.

It increases fuel independence

Domestic oil reserves continue to decline, so alternative energy sources are becoming more important than ever. Solar power reduces the nation's critical reliance on foreign oil, which is subject to dramatic cost fluctuations, and diminishes the risk of power shortages caused by disruptions in overseas oil supplies. Because solar power offers clear benefits over conventional power sources, more and more home owners are making the switch to this clean, safe and affordable energy source every year.

Income tax benefits

For commercial and Industrial users of electricity, the tax incentives offered on solar power plant by the Government of India are quite attractive, and make adoption of solar power a thriving and sustainable reality. To encourage the adoption of solar power by commercial and Industrial users, gov offers accelerated depreciation of capital assets associated with solar power plant. The current rate of acceleration which can be claimed in a year is 40%

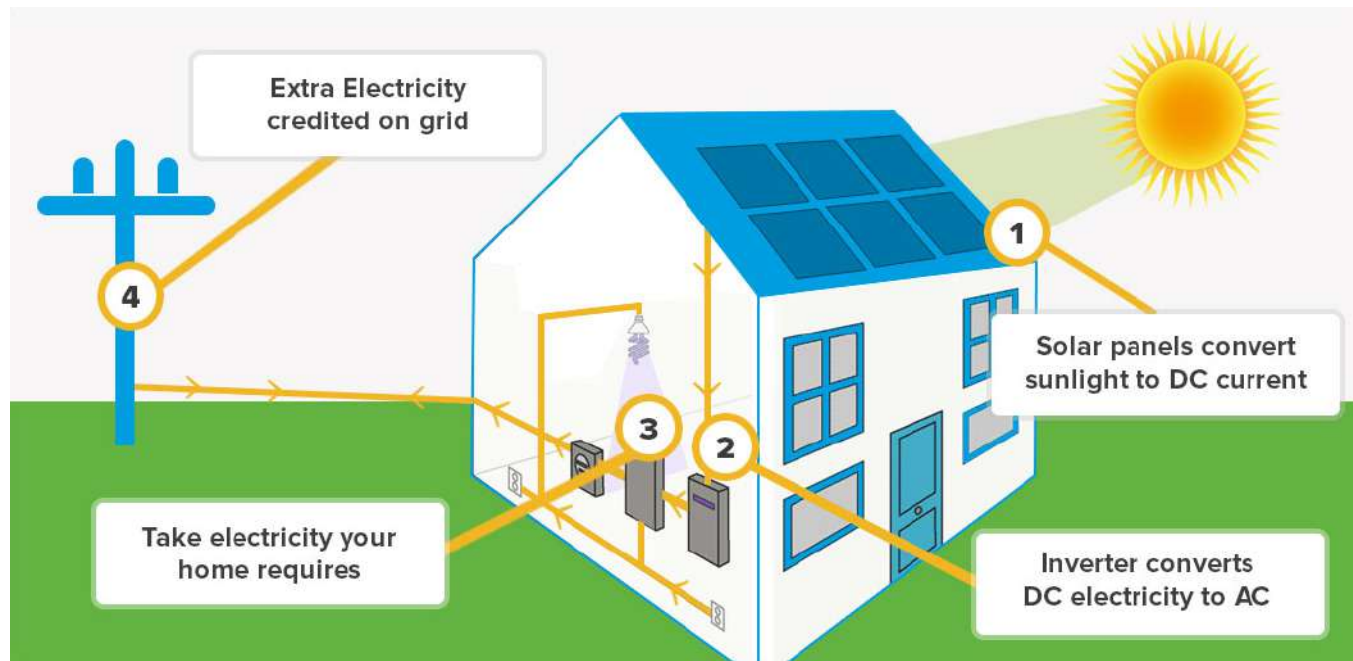
It benefits the environment

Global climate change is a growing concern. Solar power reduces reliance on fossil fuels such as oil, coal and natural gas. When fossil fuels are used to create electricity, they produce harmful gas emissions that affect the safety of air, water and soil. In contrast, solar energy produces no pollution. The sun's power offers an unlimited source of energy that does not strip the landscape or harm the ozone layer. The U.S. Environmental Protection Agency recommends switching to renewable energy sources - since these systems emit lower carbon emissions, solar energy systems represent an investment in the future of the planet, conserving non-sustainable energy sources and protecting the environment for the next generation.

WHAT IS A SOLAR POWER GENERATION SYSTEM

A Solar Power Generation System converts sunlight into electricity, which can then be used to power appliances.

A LOOK THROUGH SOLAR POWER GENERATION



Solar Panels- convert sunlight into direct current (DC) electricity

Support Structure-firmly secures the solar panels to roof or building

Wiring- connects the panel to the inverter, providing electricity to flow

Inverter-changes DC to AC electricity used in residences and other buildings

WiFi -WiFi communication supporting remote monitoring

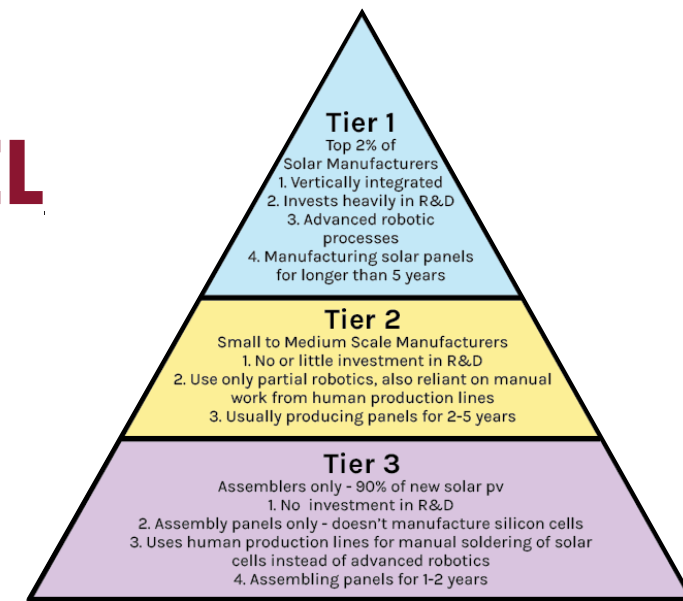
DC Distribution box: provide flexibility for the operator of the solar power plant to disconnect and connect both the inward solar supply

AC Distribution box: provide flexibility for the operator of the solar inverter to disconnect and connect both the inward grid supply

Solar Meter - provides data about the energy(kWh) produced through solar power.

Net Meter-provides data about the energy(kWh)produced,used or sent to the utility

SOLAR PANEL TIER RATING SYSTEM



HOW TO SELECT PANEL

➤ Tier 1 solar panel manufacturer

The solar panel manufacturers need to be recognized Tier 1 by Bloomberg New Energy Finance (the most common Tier ranking system) as a financially strong, hugely experienced, and worldwide brand.

➤ Tier 1 solar panel manufacturers are vertically integrated

"Vertically integrated" means that the solar panel manufacturer produces every individual piece of the module from the solar panel frame to the solar photovoltaic cells. This implies that that the solar panel manufacturer controls every production process from the ground up. Using parts from other companies can affect the quality of solar PV panels over time.

➤ Tier 1 panel manufacturers invest heavily in research & development (R&D)

Tier 1 panel manufacturers invest heavily in research&. development (R&D) to stay at the forefront of technology, Such companies have the best products.

➤ Tier 1 panel manufacturers use automated manufacturing techniques

Tier 1 panel manufacturers use automated manufacturing processes to remove the potential for human error during the production process. This helps in ensuring standard level of quality together with saving money on production costs.

➤ Tier 1 panel manufacturers should have a consistent history of at least 5 years of production of solar PV panels.

