

Website:- www.multimarketingservices.in, Email-belal5135@gmail.com

Company Profile:- Solar Plant Installation Company in India harnessing the power of Sun

The energy of sun has been present since the beginning, is phenomenal, never depleting, non-polluting and free of cost. We need a smart, efficient and effective tools and techniques to use this energy.

Multi Marketing Services- an expertise in harnessing solar energy in every possible way – be it grid connected or off-grid, be it KW to MW.

Our approach: A). <u>Plant Design and Engineering</u>

Every project comes with its own difficulties- soil, weather, wind, radiance, and topography. All these factors need to be taken in account while designing its layout. Appropriate plant design and PV parameters are one of the key components to generate maximum output and thus maximum project value.

- (A) Selection of Installation site area (based on capacity and efficiency).
- (B) Markings based on topographical sheet.
- (C) Panels are mounted as per the markings with minimum disturbance to the environment.

B). Construction and Procurement Management

(A) Robust and agile supply chain with global network for timely delivery of system equipments.

- (B) Inventory Management
- (C) Quality and Inspection control
- (D) Mounting Solutions
- (E) Alignment of non module components with module component to generate better yield
- (F) Integrated planning, scheduling and execution system
- (G) Final commissioning

C). Post Commissioning Management (0 & M) (AS PER AMC IF YOU WANT)

- (A) Regular Cleaning- dust removal of panels and inverters
- (B) Inspection of site
- (C) Removal and replacement of faulty equipments
- (D) Remote Monitoring of plant

With JREDA implementation, we can monitor functioning of our solar plant from anywhere. This enables us to:

- (A) Knows real time data from anywhere anytime
- (B) Detailed analysis to understand if power generated is as expected/designed
- (C) Know issues on-field with equipments and manage with effective O&M
- (D) Predict the power generation with certainty



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D). Rooftop Solar be an independent power producer

Solar energy is present everywhere in abundance, and is more than enough to illuminate the whole earth. At Multi Marketing Services, we assess your energy requirement, identify system components needed and integrate the whole components to generate the optimum output. So, let's begin with its working, your bill and savings, time it takes to install and you're a payback period:

Business Owners

A simple interactive diagram to make you understand - how the solar rooftop works.

Home owners/Residential

A smart and elegant solar power solution for your home can offer lots of advantages.

Whether you have already built the community or it is in construction phase.

1. KHUNTI JAIL.(15KW)



2. DUMKA CENTRAL JAIL.(25KW)





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3. CHAIBASA JAIL.(20KW)

4. SIMDEGA JAIL.(15KW)



5. KERALA PUBLIC SCHOOL (15KW) JAMSHEDPUR



6. MERAL RAILWAY SIDING (10KW)



7. SIMDEGA CIVIL COART (40KW)



8. GHATSHILA JAIL(15KW)







E). Solar Water Pumping System (PHD & Panchayat-Jalminar)

Solar powered water pumping solutions can reduce or eliminate the significant amounts of time and effort spent collecting water, often across vast distances. Water can be piped to the village centre for greater convenience. Multi Marketing Services provides reliable, low-maintenance; economical and eco-friendly water solutions powered exclusively by solar energy to the areas where traditional systems fail or simply cannot reach.

1. Jharkhand Solar Jalminar

- 2. Chhattisgarh Solar Jalminar
- 3. Jharkhand PHD Garwa





3. JSLPS Project GOLA & JAMA Block







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F). Solar Street Light System

Solar Street Lights are raised light sources which are powered by Photovoltaic Panels generally mounted on the lighting structure or integrated in the pole itself. The photovoltaic panels charge a rechargeable battery, which powers a fluorescent or LED Lamp during the night.

Features:-

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. Older models included lamps that were not fluorescent or LED. Solar lights installed in windy regions are generally equipped with flat panels to better cope with the winds.

1. <u>Keredari Police Station(HB)</u> 1X20Watt LED

2. <u>Meral Garwa</u> 2X150Watt LED 3. <u>Ormanjhi Ranchi</u> 4X24Watt LED









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G). High Mast Light System(AC)

High Mast Lighting is a tall pole with lighting attached to the top pointing towards the ground, usually but not always used to light a highway or recreational field. It is used at sites requiring lighting over a large area. The pole that the lighting is mounted on is generally at least **9M Tall** (under this height it is referred to as conventional lighting system), while the lighting consists of a luminaries ring surrounding the pole with one or several independent lighting fixtures mounted around it. Most units have four, six or eight lights in the ring, with three, five, ten, twelve and sixteen lights used in rarer instances. While most high-mast lights are high pressure sodium, other types such as mercury vapor, metal halide and LED, have also been used. Some units have the lighting surrounded by a circular shield to prevent or reduce Light Pollution or light trespass from affecting neighborhoods adjacent to the Market/ Play Ground/ Highway. Mostly it is used at sites requiring lighting over a large area.





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H). Lightning Arrester System

A **lightning arrester** (alternative spelling **lightning arrestor**) (also called **lightning diverter**) is a device used on Electric Power systems and telecommunication systems to protect the insulation and conductors of the system from the damaging effects of lightning. The typical lightning arrester has a high-Voltage terminal and a ground terminal. When a lightning surge (or switching surge, which is very similar) travels along the power line to the arrester, the current from the surge is diverted through the arrester, in most cases to earth.

In telegraphy and telephony, a lightning arrester is placed where wires enter a structure, preventing damage to electronic instruments within and ensuring the safety of individuals near them. Smaller versions of lightning arresters, also called surge protectors, are devices that are connected between each electrical conductor in power and communications systems and the Earth. These prevent the flow of the normal power or signal currents to ground, but provide a path over which high-voltage lightning current flows, bypassing the connected equipment. Their purpose is to limit the rise in voltage when a communications or power line is struck by lightning or is near to a lightning strike.

If protection fails or is absent, lightning that strikes the electrical system introduces thousands of kilovolts that may damage the transmission lines, and can also cause severe damage to transformers and other electrical or electronic devices. Lightning-produced extreme voltage spikes in incoming power lines can damage electrical home appliances or even produce death. Lightning arresters are used to protect electric fencing. They consist of a spark gap and sometimes a series inductor.



(Lightening Arrester Set At Aditya Chikitsalay Kusmi)



(Aditya Vidya Mandir School Chhattisgarh)



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I). Solar Distilled Water Plant

Solar powered distillation of water can be defined as measures to separate and extract clean water by vaporization. This can be particularly useful to turn seawater, brackish or even contaminated water into clean water safe for drinking.

How Solar Water Distillation Works :-

Distillation of water with solar energy is quite simple. Think about how nature creates rain: The Sun heats and evaporates water, which at the same time is separated from salt, dirt or anything else for that matter. When the temperature and pressure is right, the water molecules reforms and returns to liquid. Regardless of where in the World you are located, if you catch rain before it hits the ground, it is considered safe to drink.

Devices that are built around the concept of solar distillation all mimic the natural process of rain formation and can be described in two simple steps:

- 1. Evaporation to remove impurities.
- 2. Condensation to collect the water.



(Solar Distilled Water Plant 10Ltr)



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J). Solar Water Heater System

Solar water heating (SWH) is the conversion of sunlight into heat for water heating using a solar thermal collector. A variety of configurations is available at varying cost to provide solutions in different climates and latitudes. SWHs are widely used for residential and some industrial applications.

A sun-facing collector heats a working fluid that passes into a storage system for later use. SWH are active (pumped) and passive (convection-driven). They use water only, or both water and a working fluid. They are heated directly or via light-concentrating mirrors. They operate independently or as hybrids with electric or gas heaters. In large-scale installations, mirrors may concentrate sunlight into a smaller collector.

The sun's thermal energy heats the fluid in the solar collectors. Then, this fluid passes through a heat exchanger in the storage tank, transferring the heat to the water. The non-freezing fluid then cycles back to the collectors. ... Direct systems circulate water through solar collectors where it is heated by the sun.



(Solar Water Heater System 500LPD)