

RL & INFRATECH

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## RL & INFRATECH

(A group of Realty Linkers And Infratech Pvt. Ltd.)

**Regd. Address.** 424, Pkt 4, Sector 11, Dwarka, New Delhi-110075

**Contact No.** +919871666686 / +919818490099

**Email Id:** [realtylinkers@gmail.com](mailto:realtylinkers@gmail.com)

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## Introduction

Here in India, we're blessed with warm sunny weather year round. But constant heat brings rising energy bills. If you're relying on an electrical company for all your energy needs, then the warm weather that we all know and love can become a curse. Don't let that happen by going solar!

RL & INFRATECH – Enlightening lives through world-class and cost-effective energy solutions. It is rated as one of the best solar companies.

RL & INFRATECH. is one of the top solar companies in India which provides world-class renewable energy solution. Having a pan-India presence, we are committed to enlightening the lives of Indians through our efficient solar services. Our state-of-the-art technology combined with unparalleled in-house expertise has won the trust of a large number of people. Located in Delhi, we are the best solar company offering a comprehensive range of solar services

Our emphasis on deploying cutting-edge technology has outgrown our number of clients. We are one of the recognised solar energy companies that cater to stakeholders from various backgrounds like commercial, government, and education. Our specialized team of skilled technicians, led by dynamic and experienced heads, work for a single aim to fill the planet with clean and green energy. At RL & INFRATECH Solar, we implement robust methods for solar panel installation that promises quality and cost-effectiveness at the same time. RL & INFRATECH has the support of a well-qualified team of expert engineers who are determined to deliver high-quality and innovative solutions throughout the engineering, procurement and construction stages.

Having qualified solar EPC team by our side makes us one of the best solar panel installation companies. The dedication of our solar EPC team has helped us in delivering numerous turnkey projects with assured quality. By introducing new ideas and innovative methods, we provide customers with feasible and instant energy solutions. The inclusion of innovative techniques and technology has helped us to cater PAN India clients across the country, and the number keeps growing annually.

Spanning across the nation, we strive for the best customer service by delivering high-quality standards. We, at RL & INFRATECH, conduct constant research to achieve our aim of highest customer satisfaction.

### MISSION SOLAR

“The solar business aims to provide **Sustainable, Reliable** and **Clean** power to all its customers”.

**“Every kilowatt hour generated by solar energy means a reduction in pollutants, Hence improving the overall ecology and moving towards a better future”**

### Why us?

- ❖ In house design & infrastructure & Technical Expertise
- ❖ One point contract responsibility
- ❖ Experienced liasoning team well aware of process and people to acquire permits for timely completion of projects across India.
- ❖ With Significant collaborations, technical know-how support makes us the most preferred power solutions provider to our customers

## SOLAR PV IN INDIA

The Indian subcontinent has immense solar energy potential, with parts of it receiving as much as 4-7 kWh per sq. meter per day. Solar power comes across as an option to bridge the ever increasing gap between the demand and supply of energy, since the dependency on finite fossil fuel needs to be brought down.

Further the usage of fossil fuel poses a significant threat to the environment and if not checked will severely affect the climate. To address these issues, the Prime Minister of India released the National Action Plan for Climate Change (NAPCC) in 2008 under which is the prestigious Jawaharlal Nehru National Solar Mission.

To further support the mission, states like Gujarat, Rajasthan, Karnataka, Tamil Nadu, Andhra Pradesh came out with their individual state policies to fulfill their RPOs/SPOs promoting large-scale deployment of solar power plants. Simultaneously Central Electricity Regulatory Commission (CERC) introduced Renewable Energy Certificates (REC) mechanism for Solar Energy, which allowed obligated entities to meet its obligation by purchasing the RECs.

India has come a long way since 2008 and aims to shift a significant part of its energy requirement to renewable sources. While technological advancement in the solar space is reducing the cost of generation, the government is taking significant strides in improving the transmission infrastructure and providing incentives like waiver of Electricity Duty etc.

Overall a cleaner environment is the need of the hour and India with the immense potential of harnessing the abundant available natural resources is poised to emerge as the leader in renewable energy installations. Solar photovoltaic technology with the ease of set up and hassle free operations is fast covering grounds to take us closer to the ambitious target.

## Engineering Procurement Construction Process flow

### A – Process Flow for Solar Project Execution.

With an experienced project management team, We at **RL** follow a very professional and a systematic approach to all our solar projects.

| <b>OUR PROCESS FOR SOLAR PROJECT EXECUTION</b> |   |
|--|---|
|  |   |
| <b>Load Assessment</b>                         | Load Assessment for light loads and heavy loads of the building or industry in order to calculate the system capacity required.   |
| <b>Prefeasibility Study</b>                    | Prefeasibility Study of the available area to analyze system capacity possible and testing structure and climatic parameters for stability to support the module load, shading and grid accessibility connectivity.                             |
| <b>Vendor Finalization</b>                     | Vendor Finalization for equipment's required all through the project along with qualified civil and electrical contractors.   |
| <b>Project Planning</b>                        | Project Planning including preparation of detailed engineering drawings, project execution plant, system sizing and plant lay out.  |
| <b>Delivery of Equipment</b>                   | Delivery of Equipment to project site after comprehensive testing done based on random sampling to ensure quality and consistency.  |
| <b>Installation and Commissioning</b>          | Installation and Commissioning of the plant's mounting structure, modules and other electrical equipment's. This also covers the deployment of necessary monitoring system. Conducting test run and final handing over is done further to this. |

## B – Engineering

We have a team of skilled and experienced engineers with design experience of solar projects.

| ENGINEERING                               |   |
|---|---|
| Electrical Direct Current ( Pre Inverter) |   |
| Plot Plan Layout                          | Shadow losses can be significant depending on distance between modules                                    |
| Module Series & Parallel Combination      | Can lead to cost overrun in case of oversizing & electrical hazards in case undersized                    |
| String Combiner Box                       | Bus bar size is critical to the safety of equipment and enough redundancy ensures higher equipment uptime |
| Cable Sizing                              | Increases cost and losses if inappropriately sized  |
| Inverter                                  | Depending on Technology rated voltage might significantly differ from running voltage                     |

| ENGINEERING                                |   |
|--|---|
| Electrical Direct Current ( Post Inverter) |   |
| Transformer Rating                         | Can lead to loss in energy generation if local quality  |
| LT and HT Panels                           | Inappropriate Circuit Breaker poses risk to electrical system and appropriate CT/PT ratio ensures higher accuracy |
| Conductor Sizing                           | Increases cost & losses if inappropriately sized  |

## Our Offerings?

### **A - EPC MW GRID PROJECTS**

. We act as a principle and lead EPC solution provider for ensuring the completion of each solar plant from concept to commissioning including its operation and maintenance for the complete life of a solar power plant.

. Our main objective in the EPC space is to provide top end quality services, from the initial conceptualization & design stage to the installation & commissioning stage.

. We design, build and commission with utmost sophistication and provides real time operational support & maintenance to large scale solar power plants. Our Design team ensures a robust and sustainable design for proper project execution

. We ensure reliability, risk-free yields and durability by using quality multi-system products complementing each other.

Investing in Green solar power, you show your concern to environmental consciousness and accountability. Customers, employees, and investors are more likely to work with organizations who adopt sustainable practices as part of their CSR responsibilities. Also you are lowering your carbon footprint and helping combat global climate change and reducing our dependence on foreign energy and fossil fuels.



## **B. KW ROOF TOP SOLUTION**

. Grid connected Rooftop Solar power plants within the capacity range of 1 to 500 kilowatts are simple to install and easy to maintain.

. The rising demand of these systems amongst the residential and commercial rooftops is due to reliable power supply, thereby replacing the DG sets.

. Rising cost of Electricity makes today the best time to invest in KW Rooftop Systems.

. Be an Independent power producer, not only does a system pay itself off via Subsidies and lower, or No electricity bills, your investment further attracts Tax Benefits for a commercial establishment.

. A standard kW system installation is affordable for almost anyone to get started on a Greener, Cleaner and Cheaper way forward.

. Installing a solar power KW system will instantly add to the value of your residential or commercial establishment. Your most Profitable investment ever !

**. We provide complete roof top solutions from Design till end Commissioning of Project.**

### **C. Solar Grid Connectivity**

. With Independent Power Producers under huge pressure for timely completion of projects , we add value to our customer by offering complete EPC solutions post inverter works till commissioning of grid.

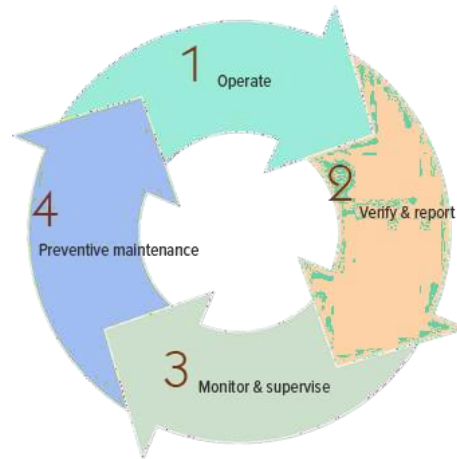
. We have a dedicated team which specializes in offering complete turnkey solutions post inverter works till the commissioning of the grid

. Our Project Management has been involved with Solar Projects, and they are well informed about the challenges faced during project execution and are capable of completing the project well within project developer time frame

. With Significant collaborations, technical know-how support and license agreements with select industry giants, We deliver the best quality equipment's used in substations for proper running of the solar plant

**“ Our main objective is to provide turnkey power solutions from Design > Engineering > Supply > Erection > Testing > Commissioning of Solar power plant post inverter works”**

## **D. Operation & Maintenance**



- . Operate the Facility in accordance with applicable regulations (particularly on safety and occupational health and environment)
- . Verify record and report information to the Owner on the generation of electricity, loss in generation due to grid disturbance, and consumption of electricity within the Facility.
- . Monitor and supervise the operation of the facility and communicate in the form of monthly reports in writing to the Owner. This monthly report will contain information regarding the evacuation of electricity to the grid; tasks performed preventive and corrective maintenance, as well as electricity consumption of the Facility.
- . Carry out all tasks of inspection, testing, cleaning, and preventive maintenance and / or corrective repair, replacement if necessary under the Good Manufacturing Practices.



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