

CORPORATE Profile



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f in O <u>@R&R</u> ENGINEERING



INTRODUCTION

Our company was established in 2019 with a commitment to delivering innovative and sustainable solutions tailored to diverse industry needs. Over the years, we have evolved from a modest operation into a well-recognized name, driven by excellence, reliability, and a focus on client satisfaction.

Key milestones include successful collaborations with esteemed organizations such as Artistic Fabric Mills, Artistic Garment Industries, and Pfizer Pakistan. These partnerships reflect our unwavering dedication to quality and our ability to deliver outstanding results. With a forward-thinking approach and a passion for innovation, we continue to build on our achievements while setting new benchmarks for success.



INDUSTRAIL PROJECTS 10^{MW}

RESIDENTIAL PROJECT 3MW



Diversification and Growth

Since its establishment, R&R Engineering (Pvt.) Ltd. has consistently focused on enhancing its solar energy offerings. Initially specializing in solar PV systems, the company has expanded its portfolio to include advanced hybrid inverters and comprehensive energy storage solutions. While solar systems remain the core focus, the company has ventured into complementary sectors like EV charging to address emerging energy demands and diversify its expertise.

Key Achievements:

- Successfully completed numerous solar energy projects for residential, commercial, and industrial clients across Pakistan.
- Official distributor partner of Solinteg in the South region of Pakistan, ensuring access to world-class hybrid inverters and battery systems.
- Active participant in major industry events such as the PAK-INDUSTRIA Expo and IEEEP Fair 2024, showcasing expertise in renewable energy.





INNOVATION SUSTAINABILITY

We embrace creativity and cutting-edge technology to deliver exceptional solutions tailored to our clients' needs.

Our commitment to environmentally friendly practices drives transparency, honesty, and us to promote renewable energy and reduce carbon footprints.

We build trust through ethical practices in every aspect of our business.

We strive to empower individuals and businesses with energy independence and sustainable solutions.

We aim for the highest standards in quality, performance, and service to exceed expectations consistently.

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Mission

Our mission is to drive the adoption of Solar PV technology nationwide, delivering environmentally friendly, sustainable, and conflict-free energy solutions. By addressing the challenges of load-shedding, we aim to fuel Pakistan's development and pave the way for a brighter, greener future.

We are committed to accelerating technology adoption across the country, offering eco-friendly and sustainable solutions that empower communities and foster progress.

Vision

Our vision is Energy Self-reliant Pakistan, focusing on self-production, energy reliability and assuring a promising future for the coming generations. R & R Engineering Private Limited will enrich the lives of Pakistani households, commercial, industrial and farm customers as a caring and reliable provider of the most appropriate solar PV power technology solutions which bring them the best value

We will build a learning culture for our team members which emphasize the highest levels of reliability, competence and integrity which will be the essence of our brand.











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SECP

Certificate (SECP)

Company house

<image><image><image><image><image><image>









Manufactures authority letters

04



05

ROLEC

WALLPOD EV

Manufactures Authority letters





Qualification & Certification

SMA

Qualification And Certification





Qualification & Certification



Our Working Process

Site Survey - Comprehensive analysis to assess project feasibility.
Design & Engineering - Tailored solutions crafted with precision.
Design Approval & Execution - Streamlined planning and implementation.
System Commission - Ensuring optimal system functionality.
Quality Assurance - Rigorous checks for superior performance.
Project Handover - Seamless transfer with complete documentation.
O&M After Sales - Reliable support for long-term system efficiency.



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SOLAR ON-GRID SYSTEM

A grid connect system can have any type of generation whether it be solar PV, wind or hydro. Yhis then connects into your distribution board and generated power is first used within the property to reduce electricity consumption and any surplus is exported to the grid. (Net-Metering) Note that if the grid supply fails, to protect linesmen working on the grid, the system will shut down.

RESIDENTIAL



What it can offer you

This simple system can be a very wise investment allowing you to:

- Reduce your electricity consumption and your bills up to 70% in some
- cases. Get paid for the electricity you export to the grid (Net metering)
- Protect yourself against rising future energy costs
- Reduce your environmental impact
- Increase the value of your home

COMMERCIAL



Commercial On - Grid Solar PV Solutions From 25KW to MWs

Tier -1 Solar PV Panels with top of the line cut cells technology.

• World's leading German inverter SMA with SMA Shade fix technology.

• On-line Monitoring control with Smart connect Energy App.

- Net Metering Approved.
- Complete installation as per local and international safety
- standards. Other components and cables from top branded

manufacturers.

5 years workmanship guarantee.



SOLAR ON GRID SYSTEM

INDUSTRIAL



Benefits

- ♦ Save up to 40% on energy costs
- Protection against rising energy prices
- Additional income from grid feed-in (Net metering)
- Particularly high yields possible and rapid ROI (return on investment)
- Tax benefits through deduction of capital expenditure and special depreciation
- Enhanced image through demonstration of commitment to climate protection and conservation of resources

How Does LEED work?

Project pursuing LEED earn points for various green building strategies across several categories based on the number of points achieved, a project earns one of four LEED rating levels:

180	140	141	-
Platinum	Gold	Silver	Certified
80+ points earned	40-79 points earned	50-59 points earned	40-49 points earned

Solar projects can provide a major contribution toward LEED certification. The primary LEED category pertaining to solar is the "Energy & Atmo- sphere" category, specifically EA Credit 2, the "On-Site Renewable Energy" credit. This credit can provide up to 7 possible LEED points. This could rep- resent over 17% of the points required for certification.

The number of LEED points awarded is determined by the percentage of the facility's energy costs that are offset by on-site renewable energy

Percentage of Renewable Energy	LEED Points	
1%	1	
3%	2	
5%	3	
7%	4	
9%	5	
11%	6	
13%	7	



HYBRID INDUSTRIAL SOLUTION



Key Features

Our Hybrid Industrial Solution offers advanced power management, ensuring optimal efficiency and seamless load sharing for uninterrupted operations. With integrated efficiency modes and Modbus support, it delivers reliable, scalable, and intelligent energy solutions tailored to industrial needs.





POWER MANAGEMENT EFFICIENCY MODE

LOAD SHARING



DEMAND SIDE MANAGEMENT

FULL GENERATOR CONTROL

DYNAMIC SPINNING RESERVE



BUILT-IN PLC PROGRAMMING

MODBUS SUPPORT 10



SOLAR PV ON-GRID SYSTEM WITH BACK-UP

*AC-COUPLE SYSTEM ESS (Energy Storage System)

Here the battery is connected on the PV side of the solar inverter (possibility with most of on-grid inverters). A battery is used to store the energy when it's generate energy from solar PV. There is some (slight) reduction in the PV feed in tariff due to energy used in battery charge/discharge process



- Here the battery is connected on the AC side of the solar inverter
- An additional battery inverter/charger is required to convert battery power to 230 Vac and vice versa
- There is no effect on the PV feed in tariff
- Possible to charge the battery from cheap rate electricity
- Back-up Energy possible in the event of grid failure.

REMOTE MONIOTORING



COLOR CONTROL SCREEN





SOLAR PV ON-GRID SYSTEM WITH BACK-UP

*HYBRID TYPICAL APPLICATION

•Enhance self-consumption: During the day, the electricity from the PV array is used to optimize self-consumption. The excess power charges the batteries, whose power supplies the loads at night. By utilizing storage, the self-consumption can reach up to 95%.

•Benefit from peak saving: By setting the charging and discharging time, the battery can be charged using the electricity generated at off-peak rates and discharged to fulfill the loads during peak hours (if the grid regulations allow it).

It also allows backup power in the event of grid failure (also available in 3 phase system).



*DC-COUPLE SYSTEM

Here the battery is connected on the PV side of the solar inverter Ahigh voltage battery (to match PV voltage) is used to store the energy when it's generated for when it's needed

There is some (slight) reduction in the PV feed in tariff due to energy used in battery charge/discharge process





OFF- Grid & MINI - GRID SOLUTIONS



At present, approximately 1.6 billion people are living without a regular electricity supply, the effects of which include stagnant development and increasing poverty. Many remote areas with scarcely populated areas are without power because connecting them to centralised power would be uneconomical. Many of these locations are ideally suited to benefit from the integration of re- newable energy: wind; solar and water power - systems are now possible to allow self-su cient communities to generate their own electricity from their local resources. This enables the creation of a local 'mini-grid' which can be easily extend- ed to power additional properties or allow the integration of new renew- able generation. Generation can be sited at the most appropriate loca- tions and power delivered across long distances to properties as it is needed.





ELECTRIC VEHICLE RESIDENTIAL AND COMMERCIAL SOLUTIONS

We provide advanced EV charging solutions powered by trusted brands such as Rolec UK, Wallbox, and Autel Energy. Our portfolio includes AC chargers designed for efficient home charging and DC fast Chargers for high-performance commercial applications, ensuring reliable and scalable solutions for every need.



Residential EV Charger

Smart. Durable. Accessible.

Pakistan's Premier Residential EV Charging Solutions! Offering 7kW to 22kW chargers, we provide full installation services for safe, efficient, and hassle-free home charging. Embrace the future of sustainable living with our top-level EV charging solutions, delivered and installed right at your doorstep.



Commercial EV Charger's

Fast. Safe. Sustainable.

We offer 30kW to 120kW chargers along with full installation services for efficient, reliable, and scalable commercial EV charging. Our solutions are designed to support businesses, public charging stations, and fleet operations, providing sustainable and seamless charging for all your needs.





EV CHARGING POINT RESIDENTIAL AND COMMERCIAL SOLUTIONS

With the growing demand for electric vehicles, reliable and efficient charging infrastructure is more important than ever. We offer advanced EV charging solutions for both residential and commercial needs, featuring high-performance chargers from leading global brands. Our customizable solution ensure easy installation and maintenance, making EV charging accessible and convenient. Whether for home or business, we provide the technology and support to drive the transition to a sustainable, greener future.







CONTROL AND MONITORING

Efficient control and monitoring are crucial for the optimal performance of solar energy systems. We provide advanced solutions for managing and monitoring solar projects, ensuring that every system operates at peak efficiency. Our control and monitoring systems allow real-time tracking of energy production, consumption, and system health, enabling proactive maintenance and reducing downtime.

With intuitive interfaces and reliable data analytics, our solutions empower clients to monitor their solar installations remotely, optimize energy usage, and make data-driven decisions. Whether for residential, commercial, or industrial solar projects, we ensure maximum performance and long-term sustainability through comprehensive monitoring and control.



Battery





Main Panel



OPERATION AND MAINTENANCE

We are the trusted operations and maintenance partner for many businesses in Pakistan. We deliver peace of mind over your system's lifetime and can maintain optimal performance through EV charger, battery, solar panel maintenance, service, repairs and cleaning.

With industry recognised technical expertise, we are with you for your renewable technology operations and maintenance needs. Including solar PV maintenance, solar panel cleaning services, a system remove and refit, fire protection safety review/upgrade, or system optimisations.

Testing & Troubleshooting

- Inspecting wiring connections and terminations for looseness and corrosion
- Inspecting wiring harnesses to ensure they are neatly bundled and protected
- Inspecting the PV array for cleanliness, absence of damage, and structural integrity
- Inspecting roof penetrations and weather sealing Maintaining batteries, which may include cleaning, adding electrolyte, charge equalization, and replacement if needed



Thermographic Inspection of Photovoltaic Installations

An infrared camera helps to visualise defects on new and existing installations

- E cient method for detection of power losses
- Detection of a wide range of local faults and irregularities
- Visualisation allows initial on-site evaluation
- Plant system condition monitoring over time with stored data
- Application in running installations
- State-of-the-art thermographic software for e cient reporting





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AND AND

PROJECT PROTFOLIO





































































DAWN

























Head Office

Visit our head office or simply send us an email anytime you want. If you have any questions, please feel free to contact us.



Visit Us:

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R & R ENGINEERING PVT.LTD ENERGY THAT MOVES THE WORLD

FANK YOU

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