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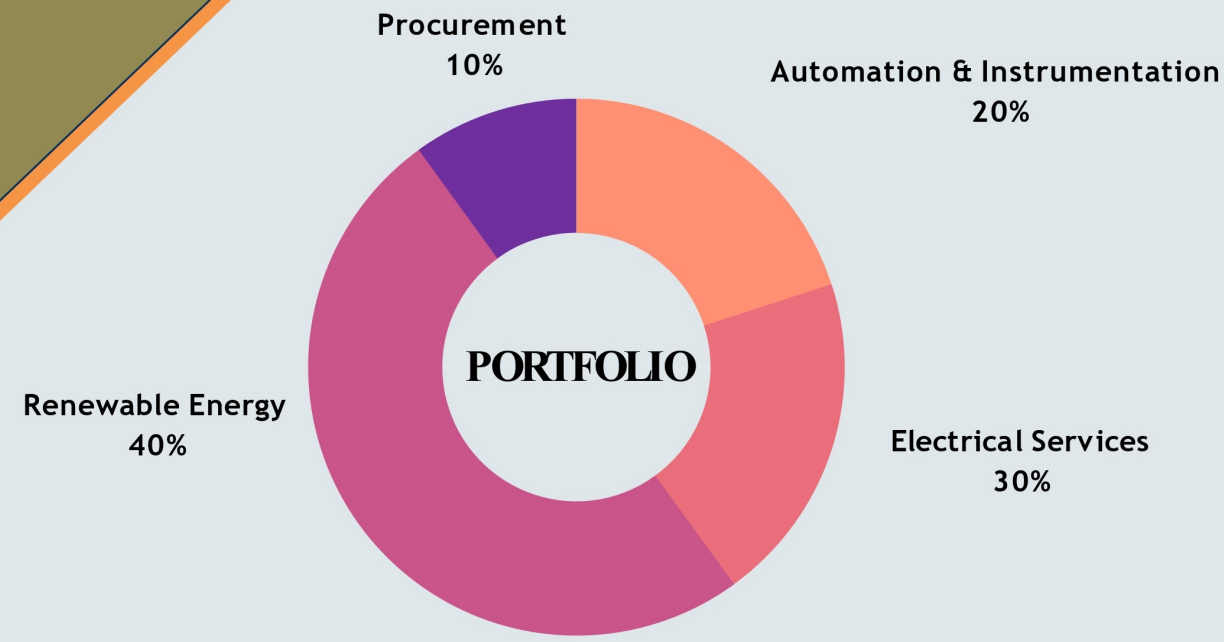
ABOUT US

Universal Solar is a professional, full-service construction & Electrical firm focused on delivering quality and performance in the built environment. We proudly share the passion and forward thinking of our clients, focusing together on making a positive impact in our communities nationwide.

Mission

Our mission is to create, and maintain a company that can be proud of its operation, its people, and its contribution to, and place in, our society.

Specializes in Design Built Solar & Turnkey Solutions



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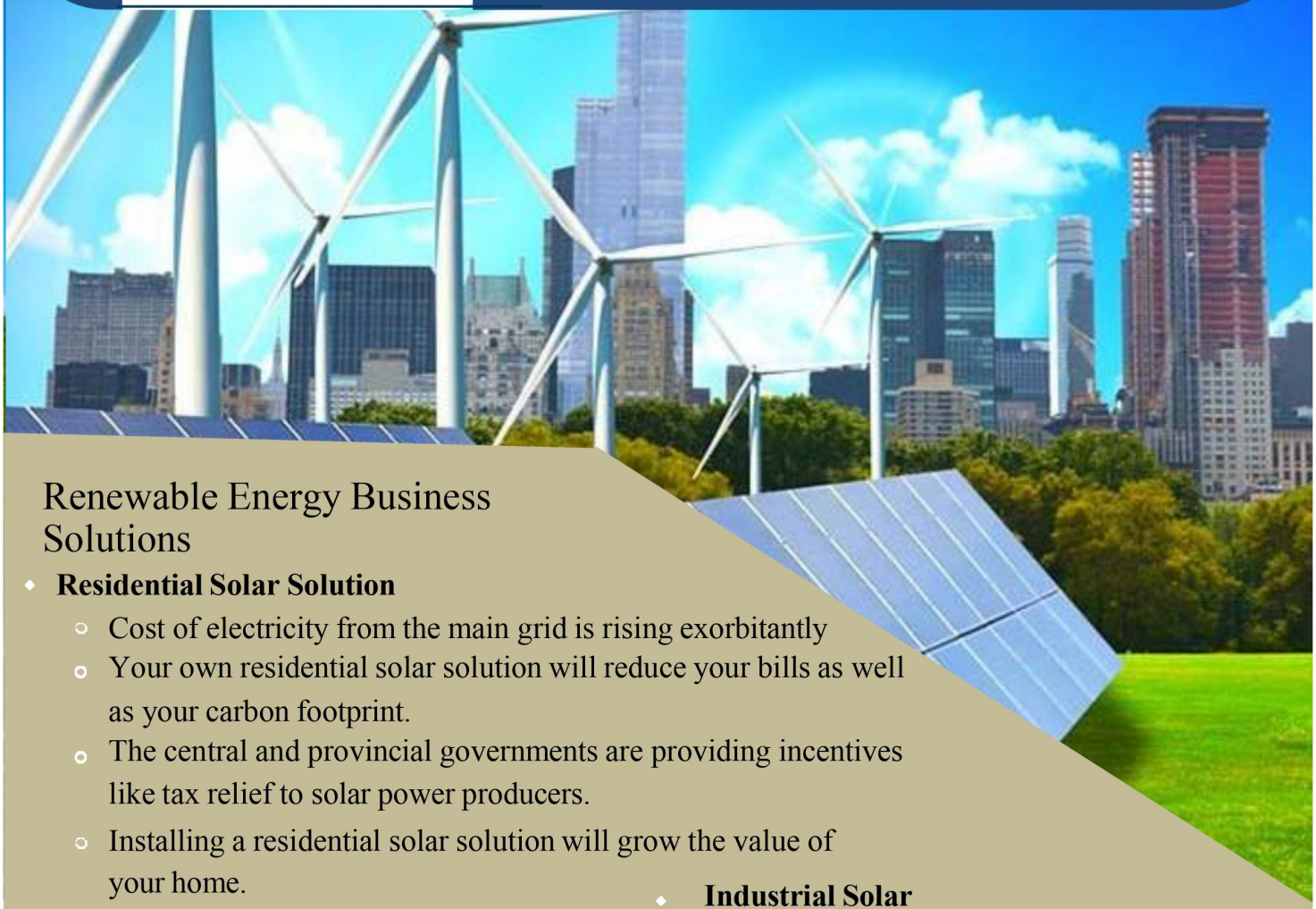
RENEWABLE ENERGY



Renewable Energy Business Solutions

- **Residential Solar Solution**
  - Cost of electricity from the main grid is rising exorbitantly
  - Your own residential solar solution will reduce your bills as well as your carbon footprint.
  - The central and provincial governments are providing incentives like tax relief to solar power producers.
  - Installing a residential solar solution will grow the value of your home.
- **Commercial Solar Solution**
  - Universal Solar has been in the business of providing solar systems in Pakistan long enough and knows it well enough to suggest/provide a good solution for varying need to commercial ventures such as organizations, educational institutions, hospitals etc.
- **Solar Energy In Agriculture**
  - Solar tubewell for irrigation
  - Solar-powered pump for community water supply
  - Solar-powered system for farm-houses
  - Solar Chakki
- **Industrial Solar**
  - **solution** Food
  - Industry Textile
  - Industry Cement
  - Industry Metals &
  - Chemicals
- PVC & Plastic Industry

Solar & Wind Power Consultancy

- **Service** A highly skilled team of
- professionals Best quality resources Project completion within a fixed time
- frame
- Os-site inspection

The solar system's structural, electrical & engineering designing according to users' specifications

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Electrical ServiceS

- Switchgear Services
  - Universal Solar's vast inventory includes Low and Medium Voltage circuit breakers and Switchgear from all major OEMs.
  - Remanufacture & Repair of Circuit Breakers & Switchgear
  - Match-in-line with your existing switchgear lineup, regardless of the manufacturer
  - Installation and Commissioning of APF/ MCC / Generator Sync Panel
  - C.T / P.T / Isolator and Surge arrestor
  - Installation of Variable Frequency Driver Panels
- Electric Pole Services
  - Erection/Installation of LT/HT Poles.
  - Earthing/Grounding of poles, transformers and related equipment.
  - Installation of Light Poles /Solar Street Lights
  - Decorative poles with lighting
  - Installation of Aerial Bundled Cables and other conductors
- Turnkey Solutions:
  - Design and Installation of Electrical Distribution Panel
  - Load calculation / installtion of the electrical wiring of Residential and commercial buildings.
  - Energy Efficient Lighting Solutions
  - Retrofit expertise (Lighting retrofits,Switchgear, panelboard,Motor control panels, Chillers, Boilers, Ductwork, Building controls, Electrical boxes and More

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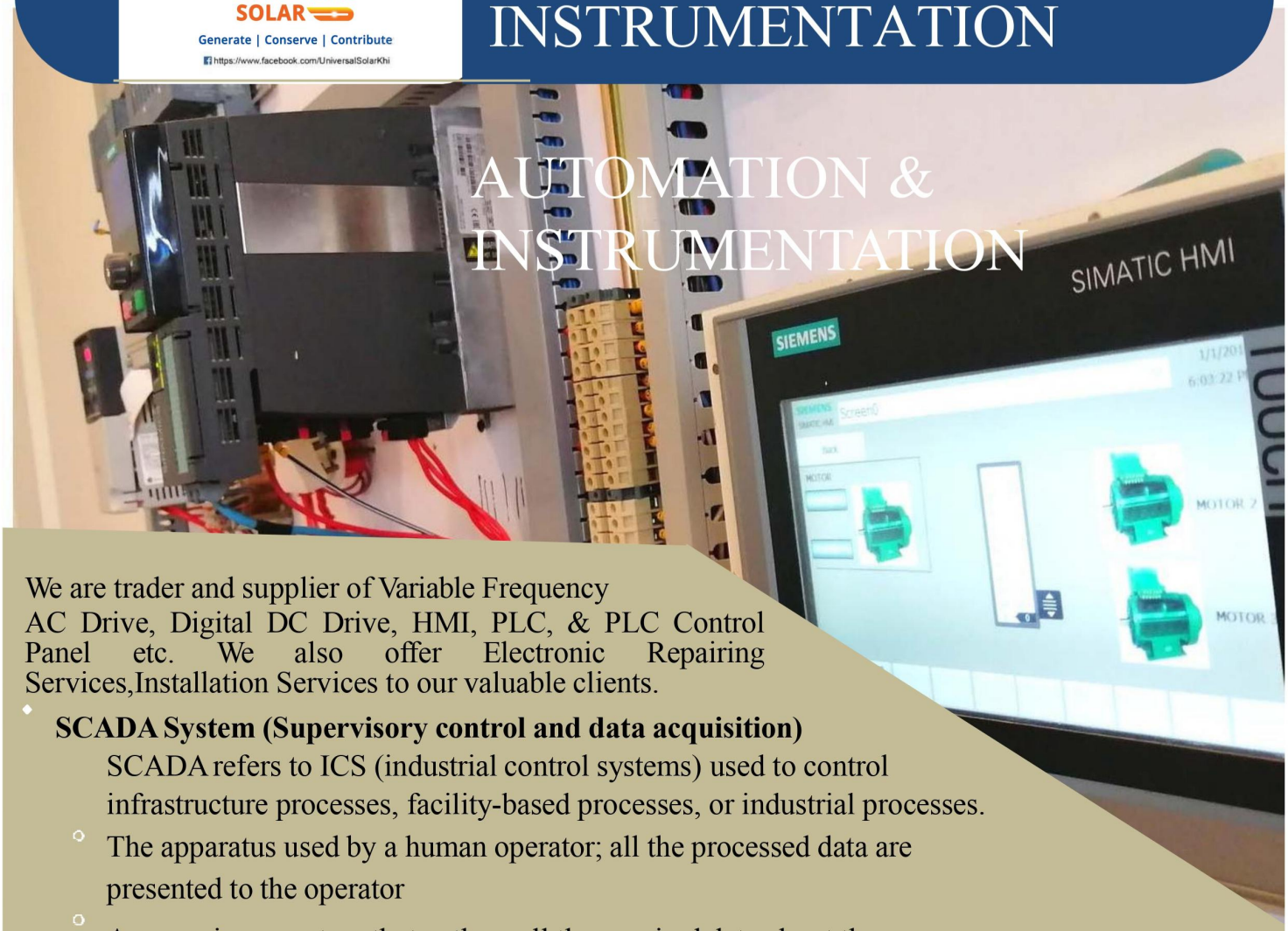
AUTOMATION & INSTRUMENTATION



AUTOMATION & INSTRUMENTATION

We are trader and supplier of Variable Frequency AC Drive, Digital DC Drive, HMI, PLC, & PLC Control Panel etc. We also offer Electronic Repairing Services,Installation Services to our valuable clients.

- **SCADA System (Supervisory control and data acquisition)**
  - SCADA refers to ICS (industrial control systems) used to control infrastructure processes, facility-based processes, or industrial processes.
  - The apparatus used by a human operator; all the processed data are presented to the operator
  - A supervisory system that gathers all the required data about the process
    Remote Terminal Units (RTUs) connected to the sensors of the process, which helps convert the sensor signals to the digital data and send the data to the supervisory stream
  - Programmable Logic Controller (PLCs) used as field devices
  - Communication infrastructure connects the Remote Terminal Units to the supervisory system
  - The HMI, or Human Machine Interface, is an apparatus that gives the processed data to the human operator. A human operator uses HMI to control processes.
- **PLC & DCS Installation, Programming and Start-Up**
- **Services Configuration of AC / DC Drives**
- **Installation and Calibration of Field/ Process**
- **Instrument Process instrumentation and control drawings**
- **On-site troubleshooting**
- **Wireless communication system to remote monitoring application and Start-Up Services. IoT based smart Automation.**

TYPES OF INVERTERS

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On-Grid Inverter

A solar inverter, converts the variable direct current (DC) output of a photovoltaic (PV) solar panel into a utility frequency alternating current (AC) that can be fed into a commercial electrical grid.

Grid Tied Inverter

A grid-tie inverter converts direct current (DC) into an alternating current (AC) suitable for injecting into an electrical power grid, normally 120 V RMS at 60 Hz or 240 V RMS at 50 Hz.

Off- Grid Inverter

An off-grid inverter needs a battery bank to function. Here's how it works: your solar panels feed DC power into the batteries. Then your inverter takes that power and “inverts” it, creating AC power for your home. This works essentially like a miniature power grid.

Variable Frequency Drive

A variable frequency drive (VFD) is a type of motor controller that drives an electric motor by varying the frequency and voltage of its power supply. The VFD also has the capacity to control ramp-up and ramp-down of the motor during start or stop, respectively.

Hybrid Inverter

A hybrid inverter, otherwise known as a hybrid grid-tied inverter or a battery-based inverter, combines two separate components–a solar inverter and a battery inverter–into a single piece of equipment.

WHAT WE OFFER

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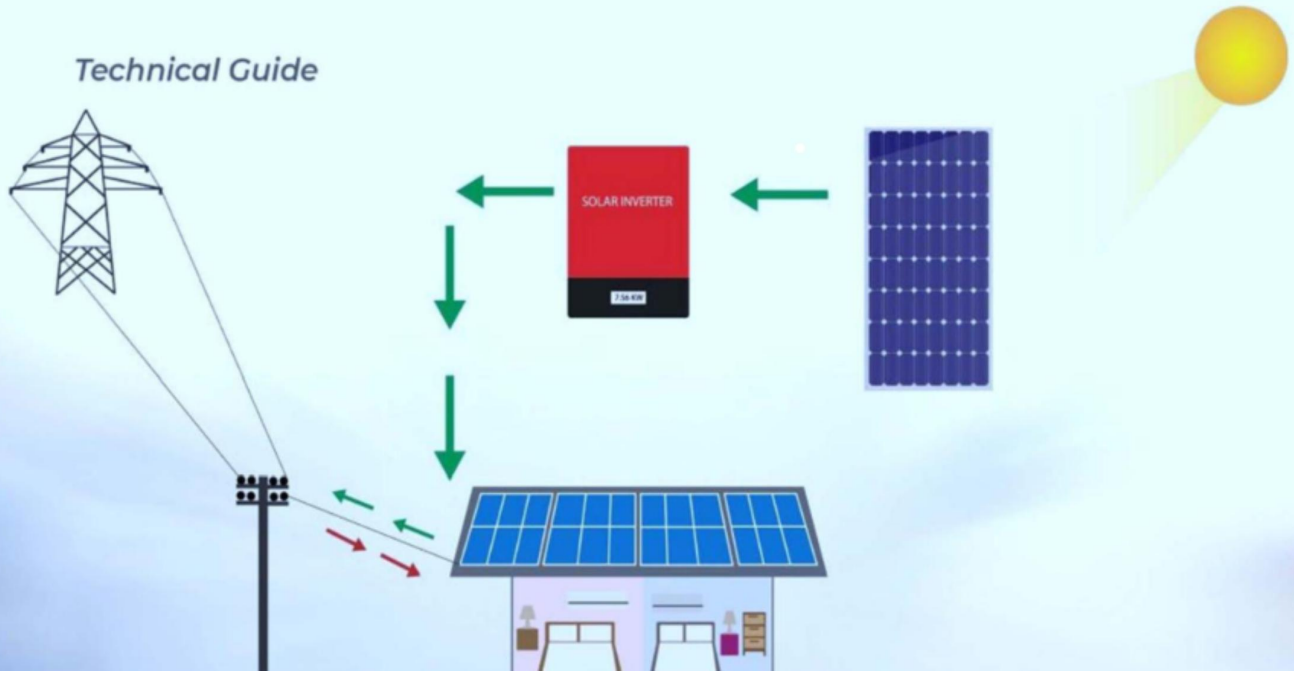
On-Grid Solar System

A grid inter-tied solar power system is directly connected to the traditional electric utility company. Grid inter-tied systems allow the homeowners to get power from either the solar system or the utility grid. Switching between the solar system and the grid is seamless.

Technical Guide



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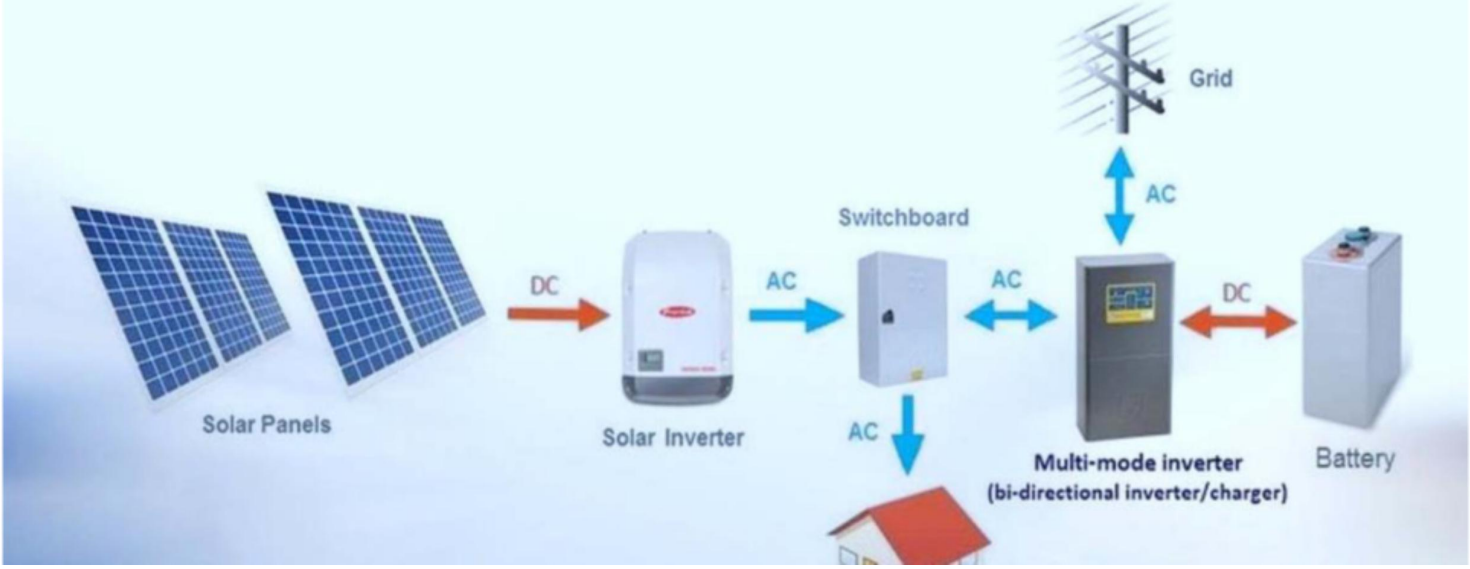
Hybrid Solar System

Hybrid solar systems generate power in the same way as a common grid-tie solar system but use special hybrid inverters and batteries to store energy for later use. This ability to store energy enables most hybrid systems to also operate as a backup power supply during a blackout, similar to a UPS system.

Technical Guide



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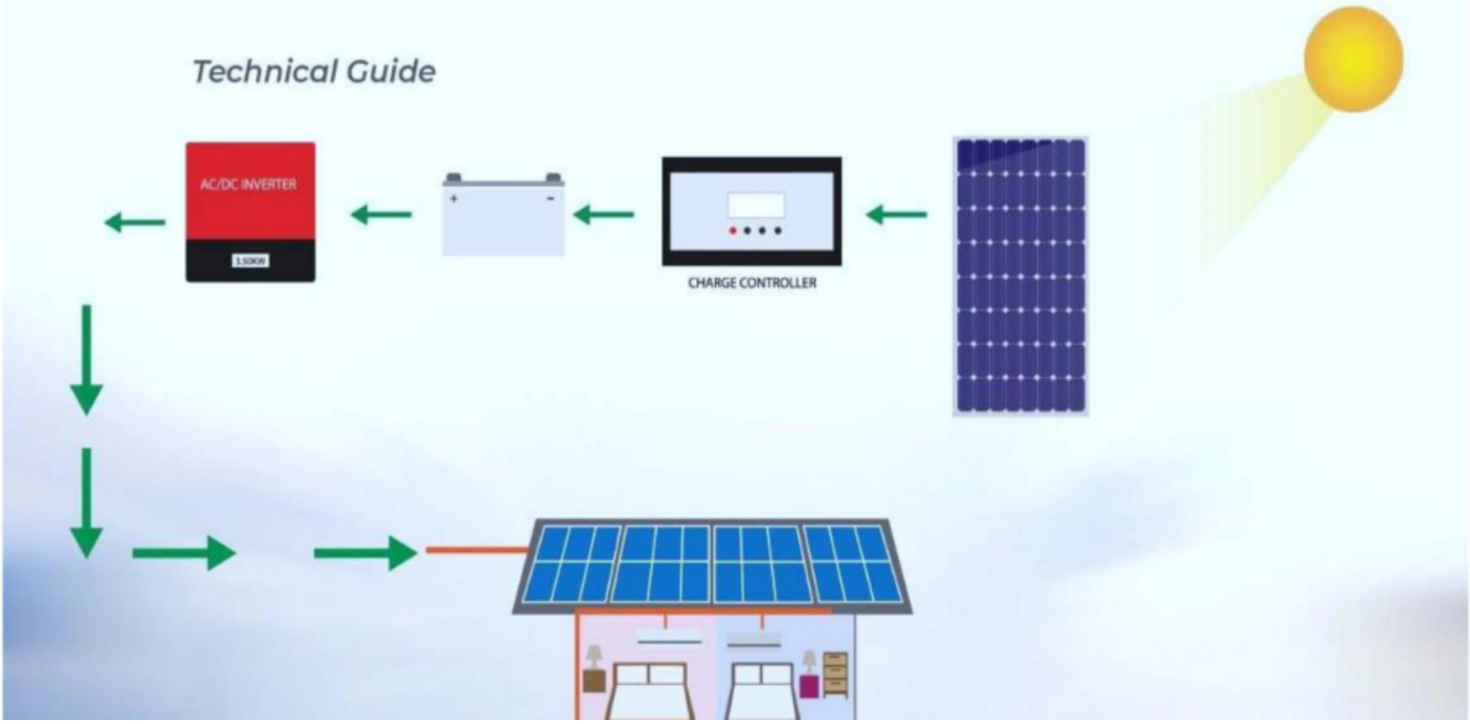
Off-Grid Solar System

An off-grid system is completely disconnected from the traditional electric power grid. Without a connection to the utility grid, batteries are essential to balance periods of excess production and excess demand.

Technical Guide



COMMERCIAL PROJECTS

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60 KW ON-GRID SYSTEM

COMMERCIAL PROJECTS

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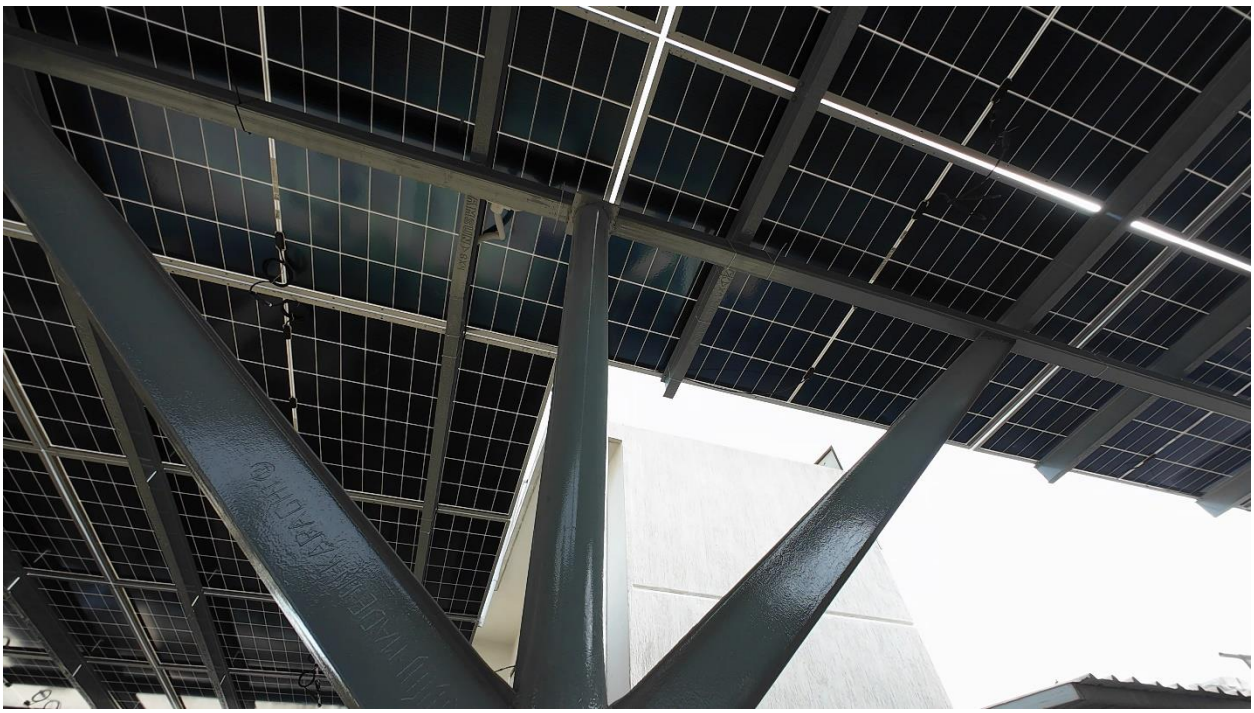
60 KW ON-GRID SYSTEM



COMMERCIAL PROJECTS

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60 KW ON-GRID SYSTEM

COMMERCIAL PROJECTS

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75 KW ON-GRID SYSTEM

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75 KW ON-GRID SYSTEM

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100 KW ON-GRID SYSTEM

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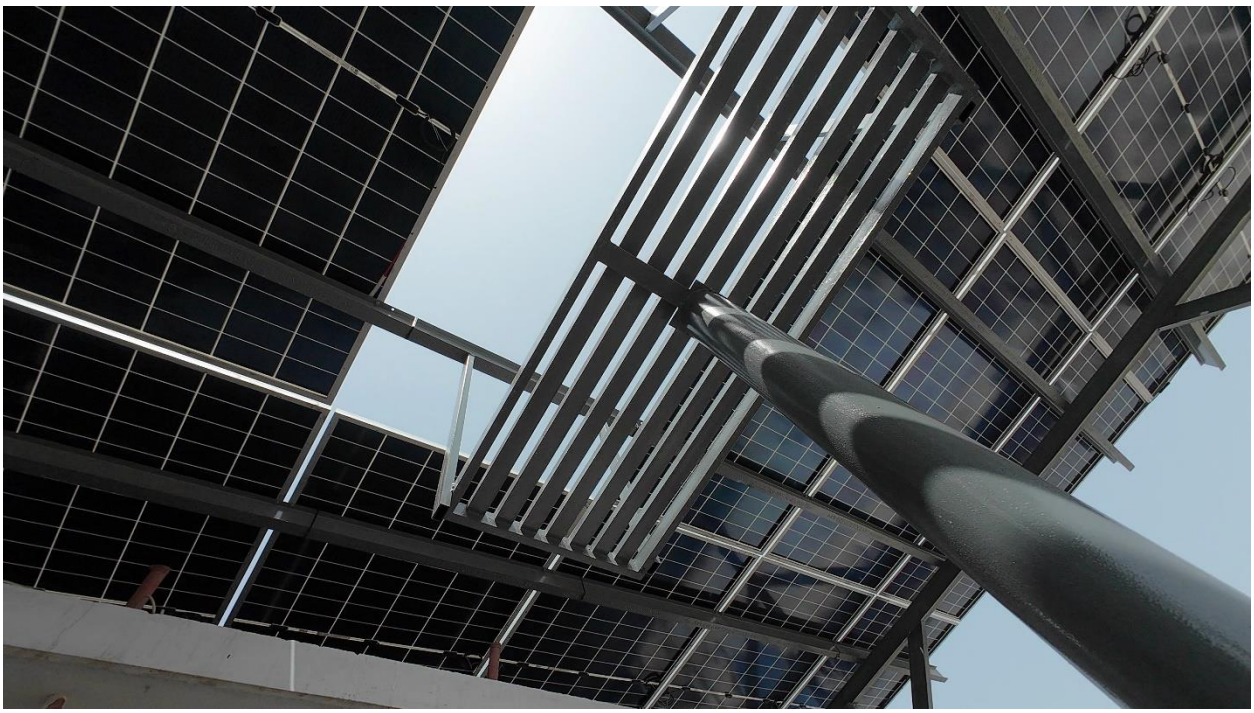
100 KW ON-GRID SYSTEM



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35 KW ON-GRID SYSTEM

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35 KW ON-GRID SYSTEM

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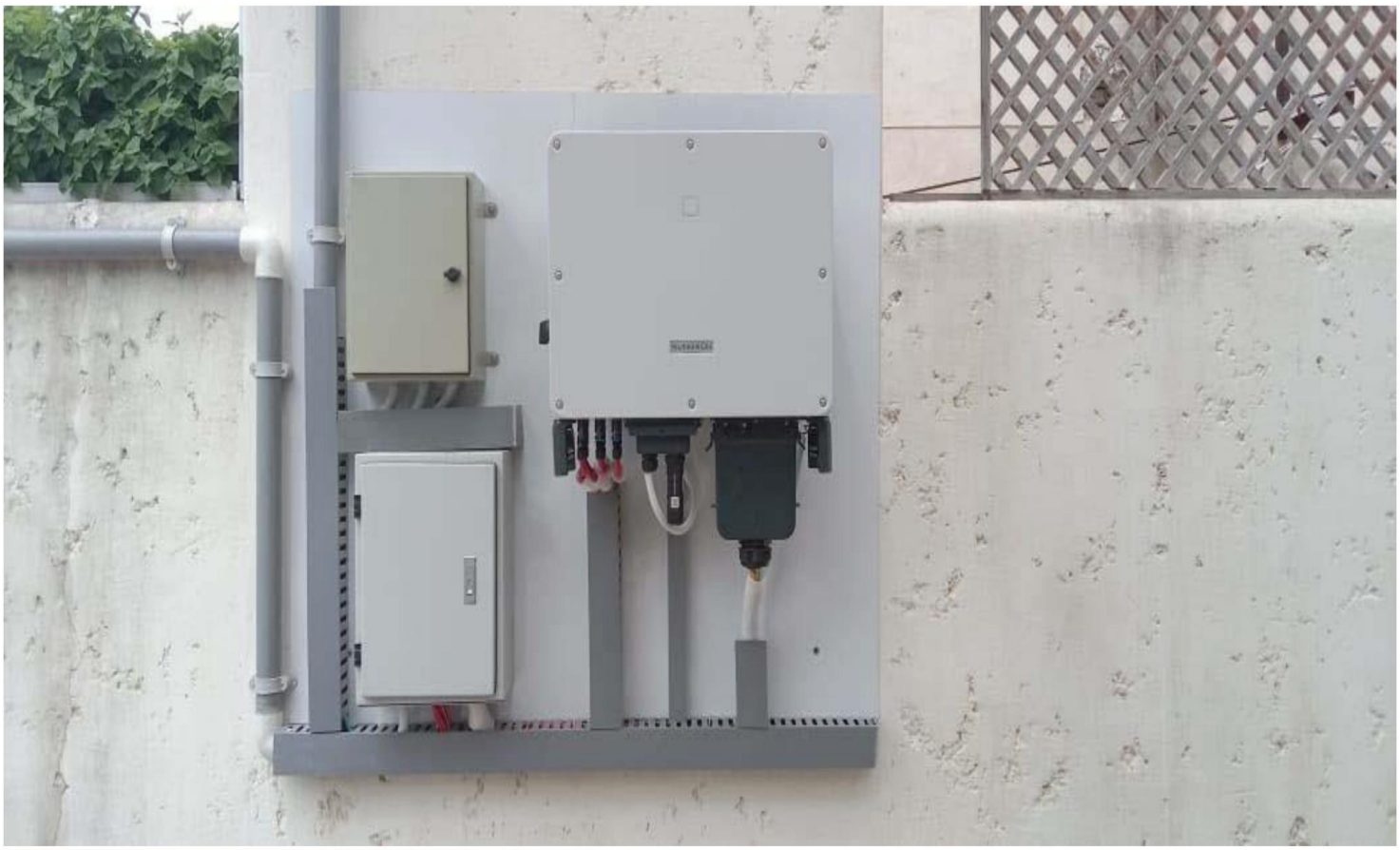

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30 KW ON GRID SYSTEM

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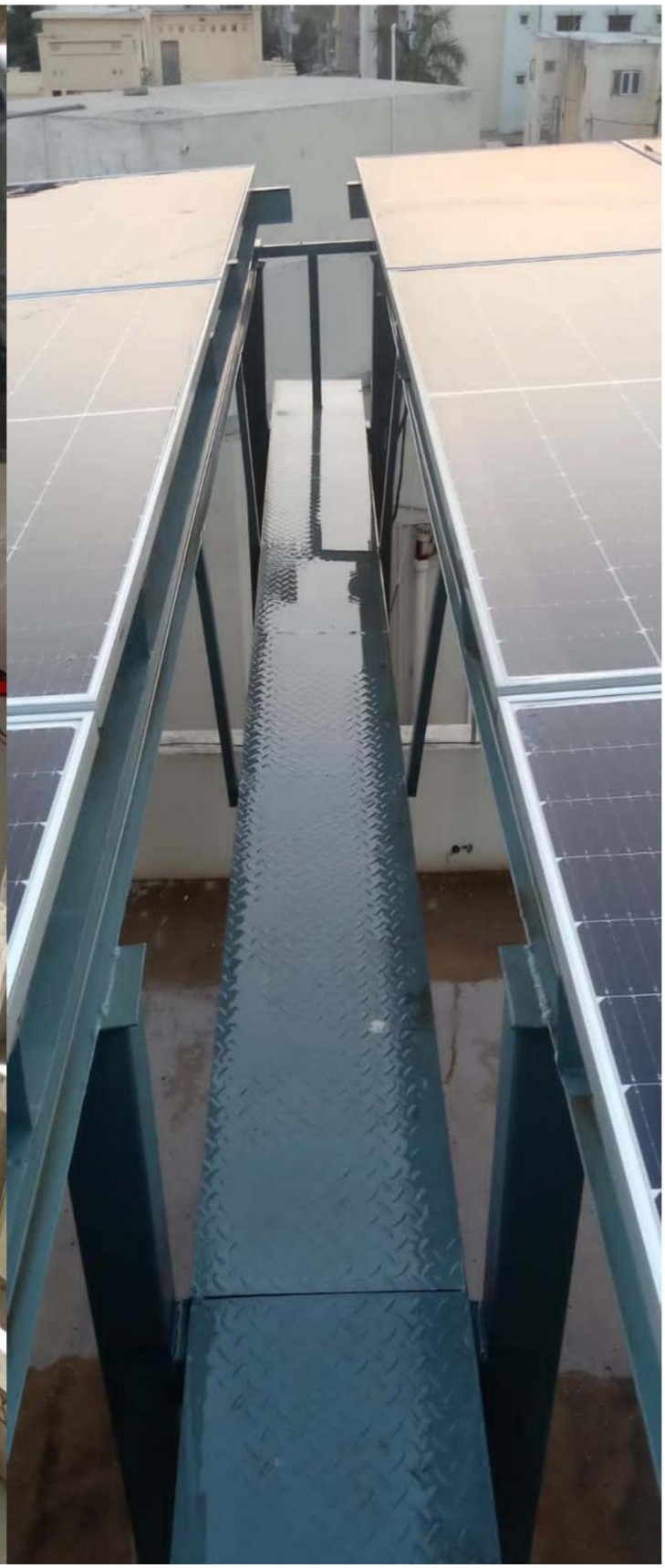

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Cleaning Process

We keep a contract of Visit, for our customer care service, in every 3 months time. After every 15 days, the panels are passed through the cleaning process and are cleaned to maintain the efficiency of the panel.

RESIDENTIAL PROJECTS

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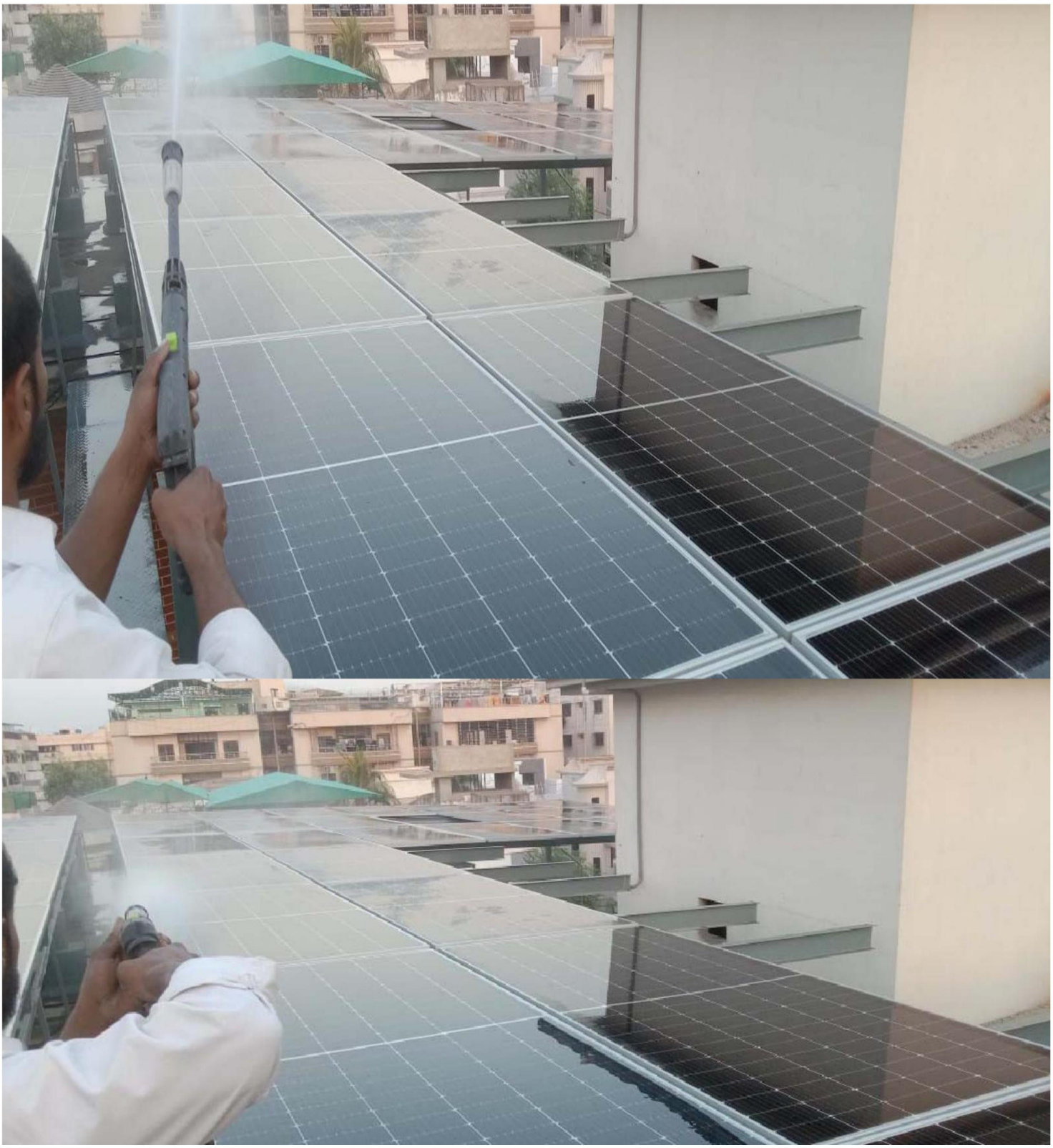
Cleaning Process



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