RSSIndia
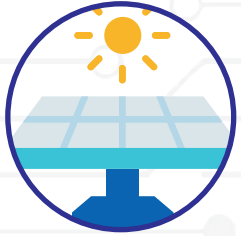
(Technology Partner- Power AMR)

Your Solar Monitoring Partner

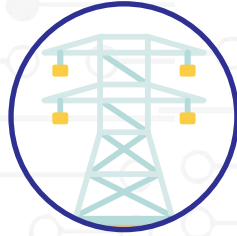## IoT Platform for Solar Plant Management and Control

Our Presence
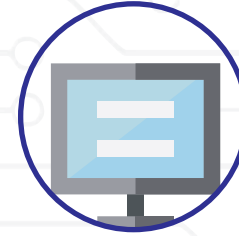
Solar Plants - 2500+

Industries - 150+

Power Utilities 5+

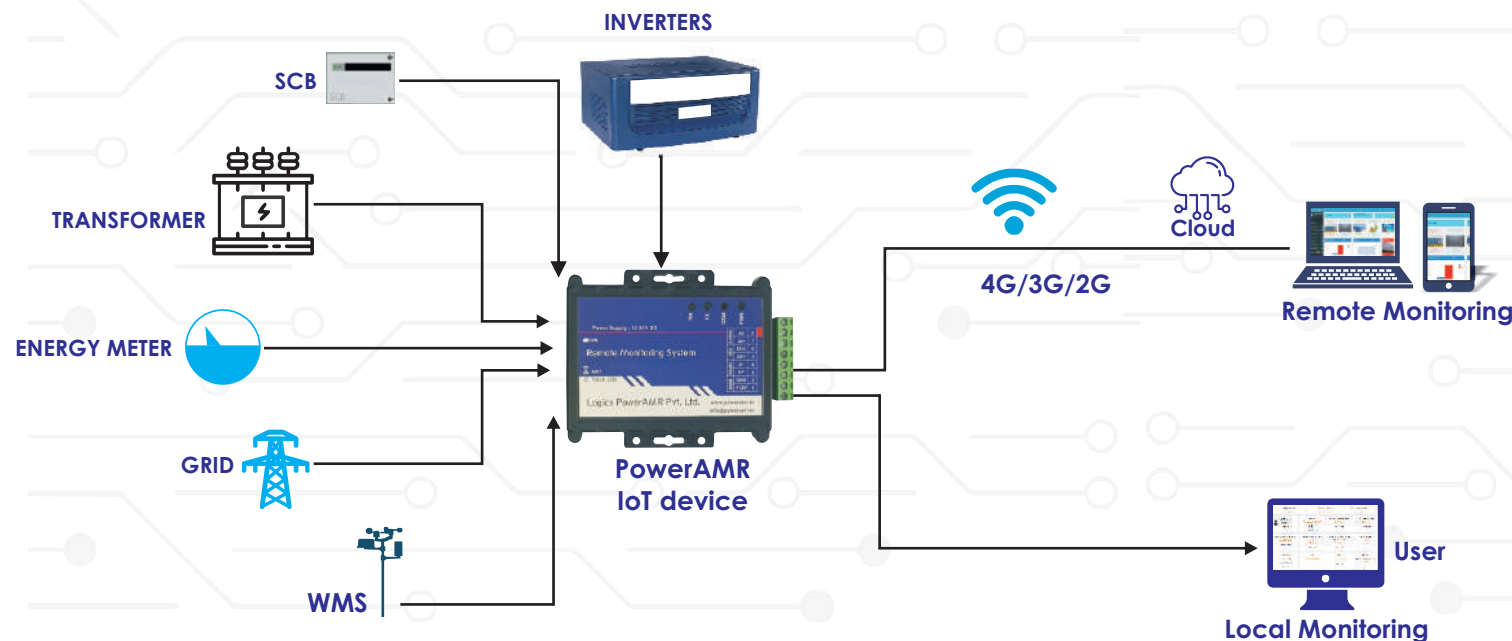**Monitored 3500+ MW**

Across 21 states & 150 cities

Some of the Prestigious Solar sites include-

- 5 MW Plant at Osiyan, Jodhpur

- 5 MW plant at Warora, Chandrapur

- 1.7 MW Smart City at Kochi, Kerala

- 2.3 MW plant at Panama Solaire, Ludhiana

- 1.7 MW Solar Plant at Air Force Station, Palam, New Delhi

- 1 MW Solar Plant at TMU, Moradabad

- 1 MW at Air Force Station, Bengaluru

- Prominent sites of NTPC, Bhel, Railways, NHPC, ONGC, HPCL, IIT, embassy

IoT Platform for Solar Plant Management & Control

We are technology experts in the field of monitoring system for Rooftop and Megawatt scale solar power plants. PowerAMR IoT based interactive platform, rules & alarms engine combined with advanced analytics helps maximises the solar yield and highly useful for key stakeholders such as asset owners, site operators and maintenance team.

Connects all solar Assets

INVERTERS

SCB

TRANSFORMER

ENERGY METER

GRID

WMS

PowerAMR IoT device

4G/3G/2G

Cloud

Remote Monitoring

Local Monitoring

User

Interactive Dashboard

Integrated plant control & management through web portal/ mobile app. Performance overview of site

Rules & Alarm Engine

Get alerts via SMS & email on any fault & data anomalies.
Improves plant uptime & maximize PR

Advanced Analytics

Deep analysis of underperforming plants. Benchmarking based on relative output, proactive failure detection

IoT based Smart Data Loggers

Remove the hassles of configuration through Laptop
Ensure Zero data loss even during network outage

Logics PowerAMR data loggers are plug 'n' play, most flexible, robust and scalable IoT devices which provides you full access for Monitoring 'n' Control.

These data loggers are compatible with all Grid-Tie, Hybrid and Off-Grid setups, Solar Water Pumping and Building Loads, energy meters, weather stations, string monitoring systems, switchgears and analog, digital and MODBUS enabled sensors.

Available in

GPRS	4G	LAN	WiFi	Lora	RF

4G Advance

E Track 4G Advance is a Modbus IoT Gateway compatible with 3G-4G- GPRS communication.

Key Features

- **Inbuil logger and Multiple IOs enabled**

- **Supports multiple protocol- TCP/http/MQTT- SSL enabled**

- **Remotely configured and OTA upgrade**

# Wide Range of Data Logger & RTU

E Track Series

- Plug n Play to all inverters, energy meters, battery and switchgear
- Built in data storage ensures zero data loss
- Integrates with all weather sensors
- Data pool during communication outage
- Battery feature captures real time outage alerts and outage time
- Delivered with IP-65 Enclosure
- Upto 6 months local data storage
- Available in 4G, GPRS, Wi Fi, LAN, Lora, RF

PWR 905

- PWR 905 is a smart RTU designed to transmit Modbus and Modbus TCP/ IP data
- Protocol Supported: Modbus RTU, RS485, Modbus TCP/IP.
- Compatible with all central and string Inverters.
- Supports 6 Analog sensors .
- Inbuilt memory: 8 GB
- Input Supply: 12-24 VDC.
- No. Ports: 1nos. RS485, 1nos. TCP/IP, 6 DI, 6 AI, 4 DO Ports

PWR 405 : DLMS RTU

- PWR-405 is a Ultra-low power RTU, which allows almost any RS232 DLMS devices / energy meter to transmit data through GPRS / Ethernet network.
- Supports all Solar and Net meters including billing meter.
- Compatible with 1 no. Energy Meter /Off Grid Inverter.
- Protocol Supported : DLMS, RS232.
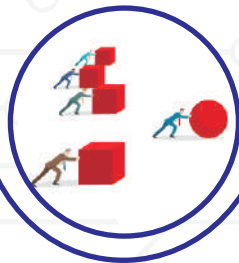- Input Supply: 12-24 VDC..
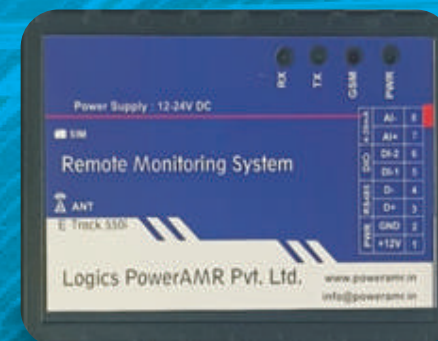
Key Deliverables

Track performance
Real time

Spot and predict failures
Instantly

Provide proactive maintenance- reduce O&M cost by
40%

Increase generation efficiency
20%
Energy Saving through identification of underforming plants

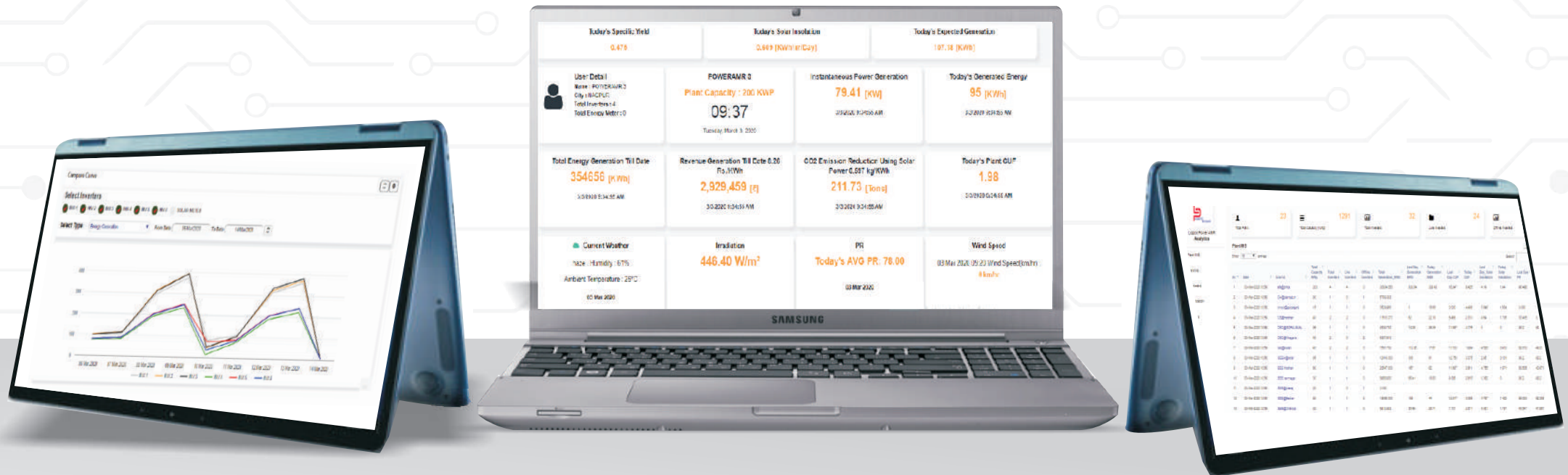Giving you a full control over your system without actually being present-
24*7

Management Dashboard

Key outcomes

- **Management & Control of Multiplant Portfolio from a single dashboard**
- **Provides actionable insights to Management**
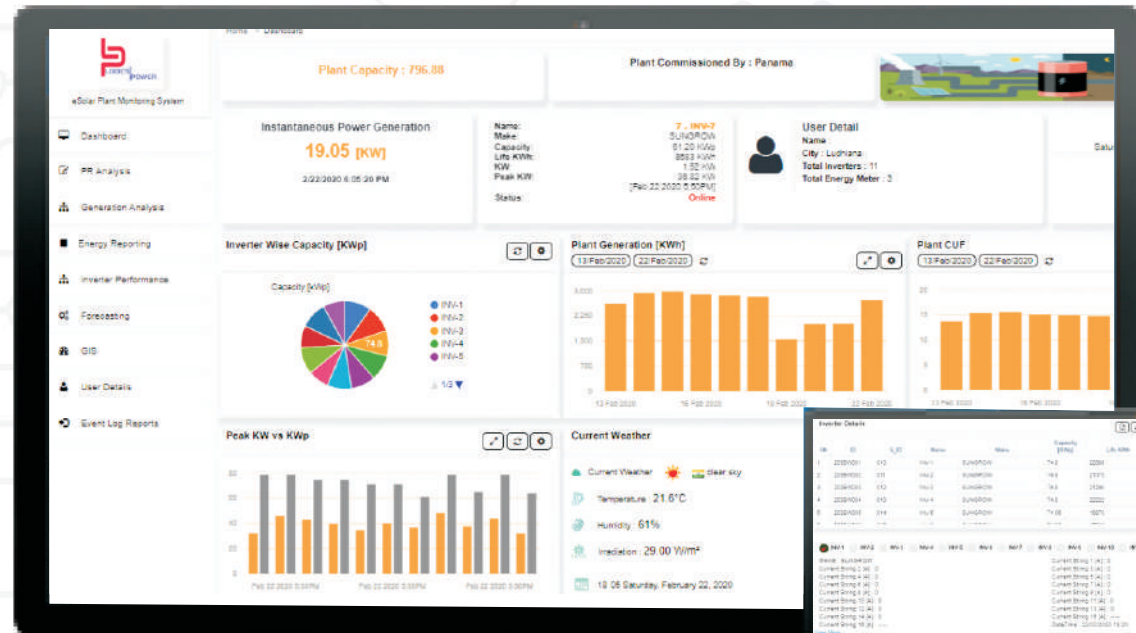
Parameters

- **Compare multiple plants across technology and various parameters on single dashboard**
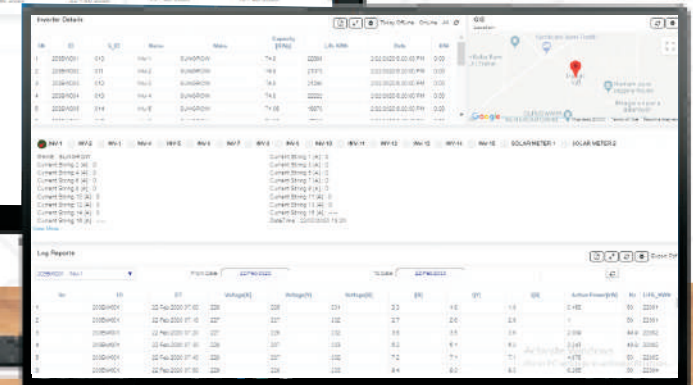
Technical Dashboard

Key outcomes

- **High level overview of Plant**
- **Performance Summary of Plant**
- **Quickly drill down to inverter, string and device level**

Parameters

- **Plant, inverter and string wise comparative**
- **System efficiency**

Weather Dashboard

Key outcomes

- Track weather conditions of plant

- Helps to predict generation losses & get alerts for maintenance

- Integrates with all makes and models of weather station

Parameters

- Captures weather parameters like wind speed & direction, Humidity, air and module temperature, Air Pressure
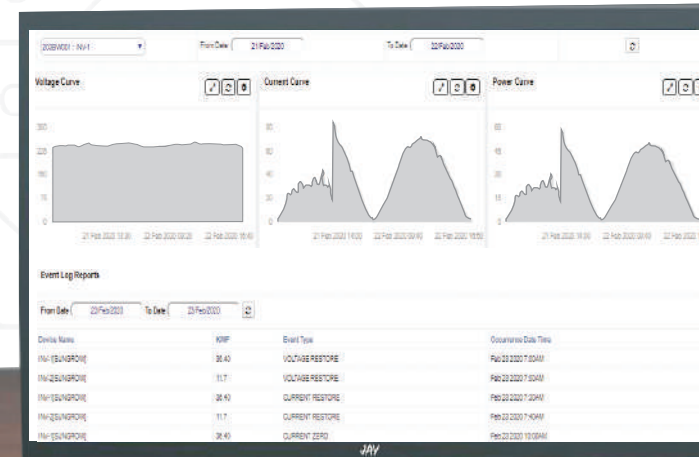
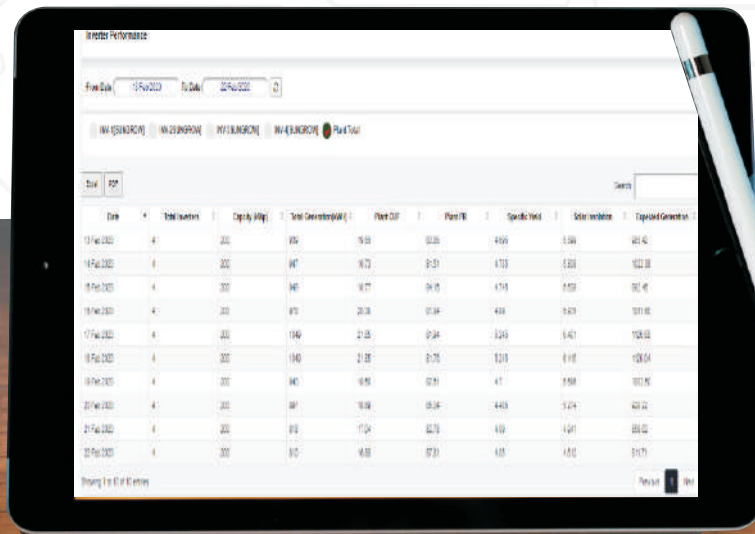- Solar Irradiation v/s Power v/s PR curves.

Analytics & Custom Alerts

Key outcomes

- Overall Performance Management of thePlant

- Helps identify underperforming plants with reasons

Parameters

- Allows multiple graph view on single dashboard

- Reporting of Critical Health parameter

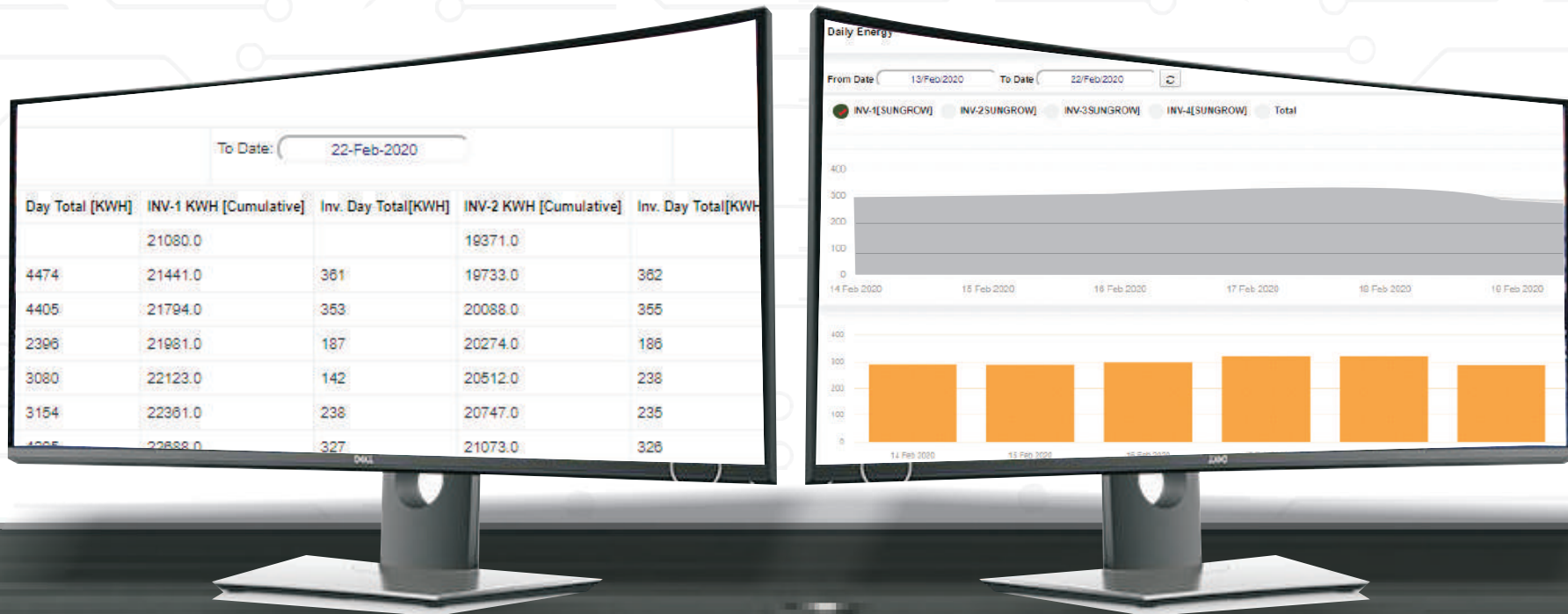- Selectable Parameter Comparison of devices of same/ different plant

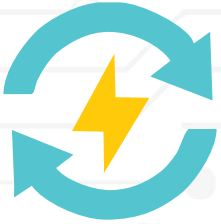# Generation Analysis

Key outcomes

- Complete Energy reporting of plant
- Energy trends v/s expected generation
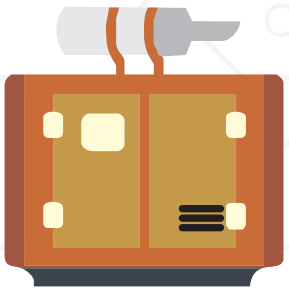
Parameters

- Daily, weekly and flexi period energy reporting
- Energy analysis and comparatives of transformer, Solar meter, net meter

Power Control

Zero Export

On sites with no Net Metering, the Power output of inverters is throttled to optimize total energy generation for captive consumption and enforce zero export of energy to the grid.

DG Synchronization

Smartly Distributes the total demanded load between Solar and DG in such way that the DG runs at the minimum possible load

PowerAMR DG Sync- Zero Export Controller
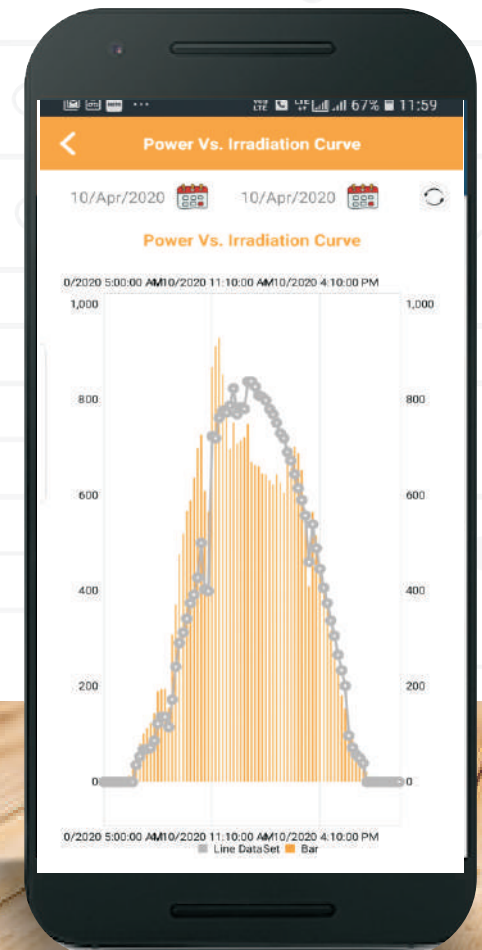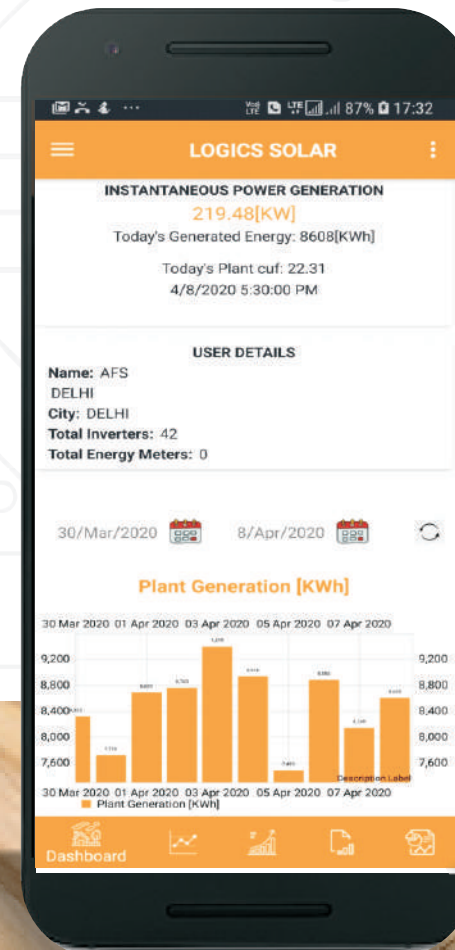
Remote Monitoring

Inverter

DG

Grid

Load
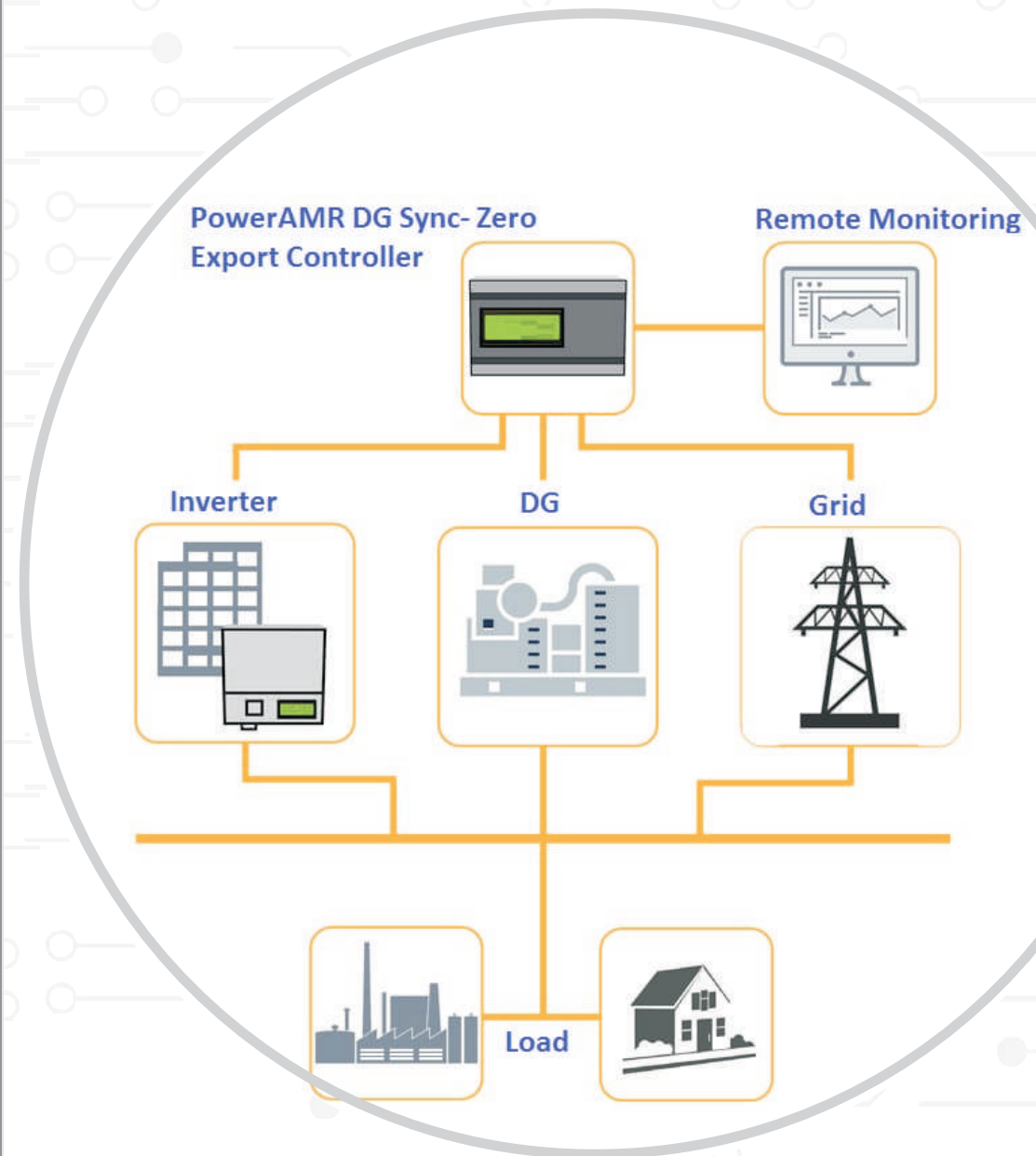
Mobile App
Access all plants through touch of your mobile

Key Outcomes

- Instant online and offline access
- Push notifications and instant updates
- Branding and Design for your Company
- Generation improvement & Cost reduction

100+ Compatible Brands

Compatible with 100 + solar inverters

SUNGROW · HITACHI Inspire the Next · solaredge · SOLA X POWER · Ingeteam · POLYCAB Connection Zindagi Ka · Su-Kam

DELTA · HUAWEI · Fronius · REFUsol · LUMINOUS · WAAREE One with the Sun · KSTAR

solis · SMA · ABB · Schneider Electric · GOODWE · STATCON ENERGIAA · KACO

zeversolar · Growatt · K Solare Energy Pvt. Ltd. · HAVELLS · SOFAR SOLAR · CHiNT POWER · UTL

Compatible with all Discom and Industrial Energy Meters

dlms device language message specification · Genus energizing lives · Landis Gyr+ manage energy better · SECURE · Itron · elster · HPL · L&T Electrical & Automation

Other Offerings

- Energy &Water Management System
- Theft Detection through Meter Data Analytics
- CMRI/ Hand Held Applications
- Billing Management System
- ABT Management System

Site installations

Thank You

CONTACT US

✉ info@rss-india.com

📞 +91- 9953698441