

loT Platform for Solar Plant Management and Control

## **Our Presence**







5+





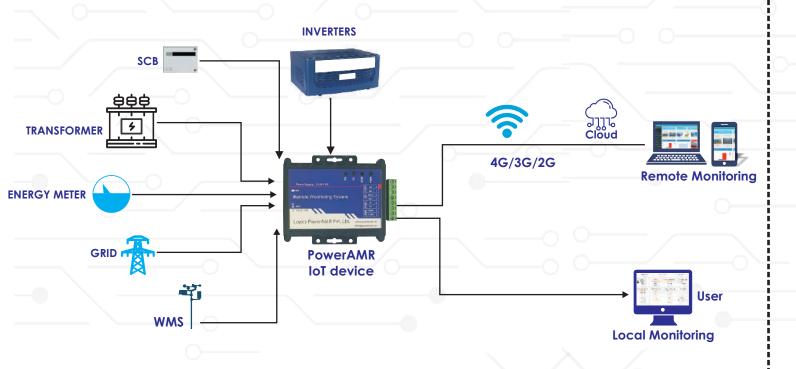
## Some of the Prestigious Solar sites include-

- 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

## loT 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-





#### **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

## loT 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













#### **4G Advance**

E Track 4G Advance is a Modbus lot 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-

## **Management Dashboard**

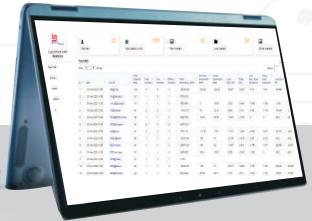
## **Key outcomes**

- 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

- 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

- 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 the Plant
- Helps identify underperforming plants with reasons

- Allows multiple graph view on single dashboard
- Reporting of Critical Health parameter
- Selectable Parameter Comparison of devices of same/ different plant



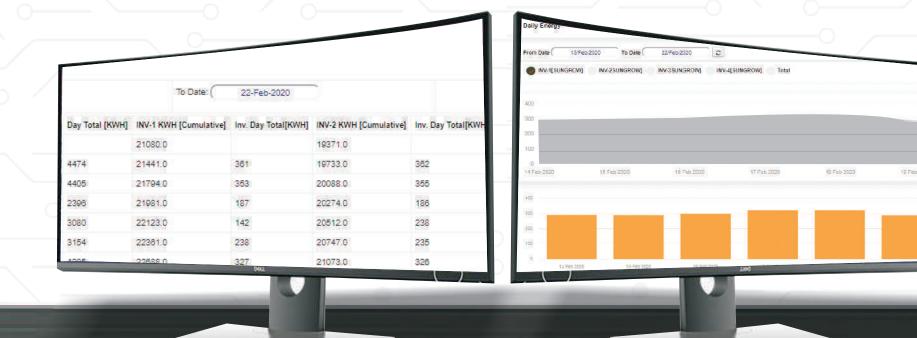


## **Generation Analysis**

## **Key outcomes**

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

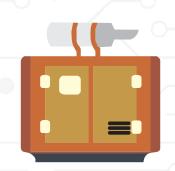
- Daily, weekly and flexi period energy reporting
- Energy analysis and comparatives of transformer, Solar meter, net meter



#### **Zero Export**



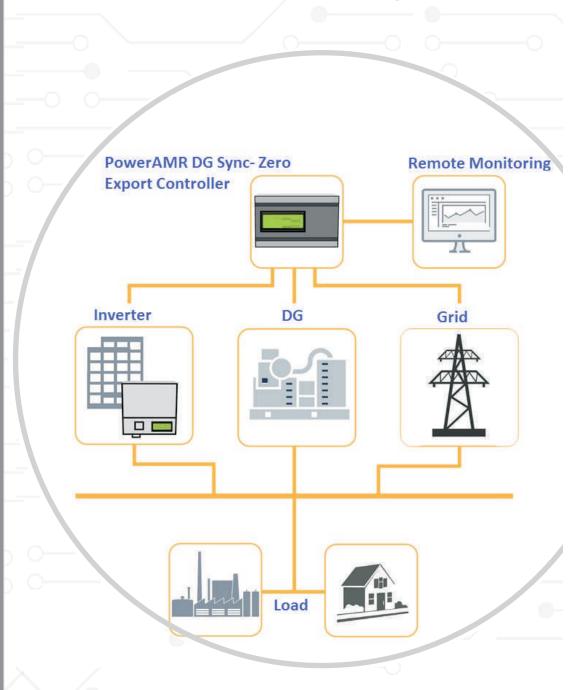
## **DG** Synchronization



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.

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

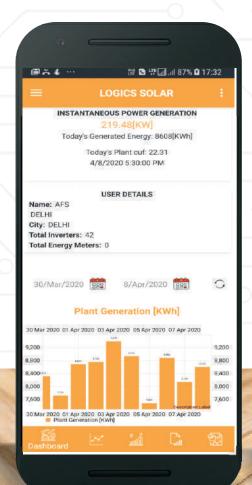
## Power Control

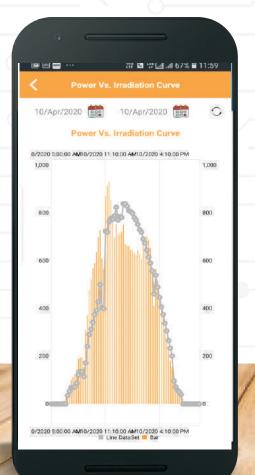


# Access all plants through touch of your mobile

## **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

























































### Compatible with all Discom and Industrial Energy Meters

















## Other Offerings

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

# Site installations





















# **CONTACT US**

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