



Shift from ~~Monitoring~~

...To Management

**“Smart & Hybrid Controlling & Monitoring Solutions”**



**SCADA**

INDIA

GERMANY

AFRICA







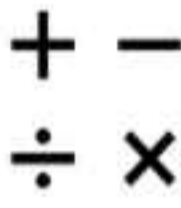



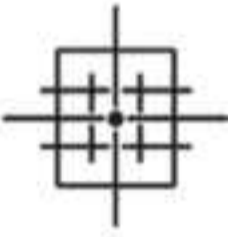

UAE

SEA

# About SuryaLogix

SuryaLogix is a product and technology development company in the field of renewables. We support and resolve client's pain points of remote monitoring, smart/hybrid controlling, asset management, SCADA in order to increase the ROI

## Technologies & Benefits

			
Analytics & IoT	SCADA	Wireless	Mobile App
			
Artificial Intelligence	Remote Management	Deemed & Curtailment	Modular GPRS 4G / LTE
			
Sensor In-House Manufacturing	Multiple & Reliable Storage	Sensor In-House Calibration	Sensor In-House Repairing



**“Solar Synergy: Maximizing Energy Minimizing Cost”**

## Rooftop Products



**Compatible  
With Multiple  
Makes**

**75%+  
Market  
Share**

**Priority  
Wise  
Controlling**

**Executed  
Complex  
Projects**

### PV-DG Controller

- Protects DG from excess solar power & maintains spinning reserve of DG
- To optimize Solar generation while running with DG

### Zero Export Controller

- To avoid back feeding into grid
- Beneficial when the load is less during break time or holidays in without net metering scenario

### Data Logger

- Remote & Local Monitoring system with real time alerts through mail & messages
- Wireless data transmission possible for multiple building

# Rooftop Products

## Irradiation Sensor



- Irradiance: 0 to 1600W/m<sup>2</sup>
- Measuring Temperature Range - 40 to 120°C
- Output: 4 - 20mA/ 0 -10VDC/ RS-485

## Module + Ambient



- Sensor Accuracy : Up to + 0.1°C
- Measuring Temperature Range -40 to 120°C
- Analog and Digital Output
- Shield based arrangement Ambient

**“Unparalleled Accuracy & Long Term Stability”**

## Surge Protection Device (SPD)



- Data Line & Power line surge protection
- To protect the device from over voltage or switching transients

## Li-ion UPS



- +12VDC, 2A output with 3-4 hours backup for SuryaLog device
- Light weight & small size

## Slave



- Wired-LAN-Intranet Network
- Wireless-Slave- RF Based
- Master Slave Configuration
- Failsafe Condition available

## Wireless Transceiver



- Range upto 1.2 kms obstacles 2 km los
- On board proprietary
- Comes with point - to - point technology

## Ground Mount Products



**Remote  
Management**

**Third Party  
Portal  
Compatible**

**Customizable  
Screens  
& Alerts**

**Easy to Install  
& Operate**

### SCADA : New & Retrofit

- Monitoring & Controlling - Local and Remote SCADA
- Grid, Substations and Transformer level monitoring
- Real time monitoring & Alerts through e-mails and messages
- Third party portal compatibility
- Central monitoring & Asset management features
- Analysis & loss calculations

## SMB : New & Retrofit

BEFORE



- Cost Effective Solution
- Increases the Plant Up time

AFTER



- RS 485 MODBUS / Wireless Interface / OFC
- Available in 1000VDC or 1500VDC

### String Monitoring Board



- Current Channels: 4/8/12/16/20/24
- 1 Input Channel For Voltage: 1000V Or 1500V.
- 4 Digital Inputs & 1 On Board Temperature Sensor.
- RS 485 MODBUS/ Wireless / OFC / Ethernet

### RS 485 Repeater/Splitter



- RS 485- 4 Port (Half Duplex ), 1 Port (Full Duplex)
- Output, Modbus RTU, Modbus TCP/IP
- Supply Input Voltage range 10 to 28 VDC

### RS 485 Extension



- RS-485
  - 1) 2 Port - RS485 Extension
  - 2) 5 Port - RS485 Extension
- Supply Input voltage: +10 to +28 VDC
- Output: Modbus RTU / Modbus TCP/IP

### DI/DO Card



- To sense the ON, OFF, and TRIP conditions from breakers
- Easily integrated with SCADA through RS-485 output

## RMS Products

### Solar Water Pump RMS (SWP Log)



- Monitors generation & consumption
- Monitors pump run time and fault analysis
- Enhances drive to monitor & control

### On Grid RMS (RuF Log)



- Monitoring for residential & small commercial solar plants
- Daily alert messages and mails
- FTP compatible

### Off Grid RMS (PCU Log)



- Monitors battery charge & discharge
- Monitors-Off grid & hybrid systems
- Compatible with Lead acid & Li-ion

### Grid EMS (RMS)



- Load monitoring for open access
- Grid monitoring at HT / LT levels
- Daily alerts & historical analysis

## Residential and Small Plants



SuryaLog RC-4G

- Compatible with multiple inverters makes
- Easy to install and configure
- Local data storage and upload to portal in case of internet failure
- suitable for residential & small commercial



SuryaLog RM-4G

- Local data storage
- RTC & Remote Monitoring
- Internal storage - Max 2-3 months
- Compatible with multiple inverters makes



RMS Dongle

- Surge Protection is up to 2kv
- Local Storage & Upload to Cloud
- Data Storage & Servers in India



DC-DC Converter

- Wide Input Range:200/300 to 1000VDC / 1500 VDC
- Efficiency : Up to 86%

## BESS Controller



- Power flow control towards load
- PCS, Battery, Grid, DG, Solar can interfaced
- Tripping alarm system
- Priorities based Operation
- Controlling through soft signals & hard signals
- Time- Based Controlling

## Hybrid Controller



- Mini - Micro Grid Interfaced
- Batteries, Grid, DG, GG, Solar, Wind- etc.
- Priority wise Operation
- Local & Remote monitoring available
- Time -Based Controlling

## Power Plant Controller



- Active Power Curtailing
- Local & Remote Command
- Reactive Power Curtailing
- Night Time Reactive Power Management
- Static & Dynamic Controlling

# Sensors

## Module Temperature - Monofacial & Bifacial



- Measuring Range:  $-40^{\circ}\text{C}$  to  $+120^{\circ}\text{C}$
- Operating Temperature Sensor:  $-50^{\circ}\text{C}$  to  $+100^{\circ}\text{C}$
- Class: AA
- Output - Analog & digital

## Ambient + Humidity + Barometric Pressure



- Sensor Accuracy : Up to  $\pm 0.1^{\circ}\text{C}$
- Measuring Temperature Range  $-40$  to  $120^{\circ}\text{C}$
- Output-4-20 mA/0-10 VDC/RS -485
- Shield based Ambient Temperature Sensor

## “Setting New Standards in Solar Measurement”

### Wind Speed & Direction



- Range - 0 to 359° & 0 to 70 m/s
- Output :- Analog & Digital  
Mechanical : Wind Vane
- Types : -  
1 . Cup & vane based design  
2 . Ultrasonic
- Complies to IEC 61724 - 1: 2021

### Rain Gauge



- Auto-stow trackers during rain to prevent damage
- Optimize cleaning schedules
- Support safe shutdowns in extreme condition
- Tipping bucket based mechanism

## Soiling Station & Types



**SoilLog IV (IV Sense)**

- Short Circuit & MPP Method
- Based on Soiled & Clean Reference PV Modules



**SoilLog Optical (Optic Sense)**

- The optical system measures Soil loss through light transmission
- Continuously tracks how dust, sand, and pollen affect PV glass transparency



**SoilLog RuF (RuF Sense)**

- Soiling Ratio is determined by comparing irradiation values
- Specially designed for rooftop systems

## Helio Track



- ALL-IN-ONE system including a pyrheliometer (DNI), Diffuse pyranometer (DHI), Global Irradiance and data logging
- Trackable to Sun Movement

## Cloud Cover - PCCD & All Sky Camera



- Unit Measurement - CCP/ Okta
- Range - 0 to 100% CCP
- Model No - SL-PCCD-MI

# Weather Monitoring Station

## Weather DataLogger



- As Per CEA - 2025 Guidelines
- Compatible with All Weather Stations
- Easy to configure and Commission
- Flexible to Interface Multiple Sensors
- High Resolution & Accuracy
- Flexible & Configurable
- Internal Storage & Inbuilt GPRS

**“Experience Unbeatable Reliability & Advanced Connectivity”**

## Weather Mounting Pole with Self Charge



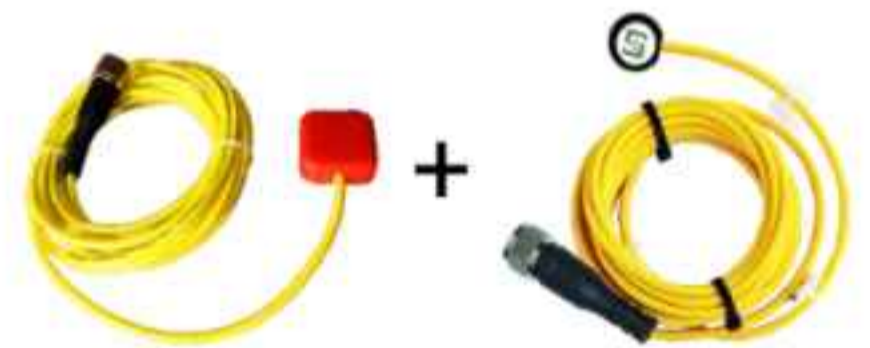
Thermopile Pyranometer sensor



Ambient Temperature & Humidity Sensor



Wind Speed & Direction Sensor



Monofacial & Bifacial Sensor



Cloud Cover Sensor



Rain Gauge & Albedometer Sensor

## “India’s 1<sup>st</sup> Calibrated & Tested by WRR/WRC”

### Thermopile Pyranometer –Secondary Standard- (Class A)



- Improved measurement accuracy
- Used to measure the wide spectrum of the solar radiation
- Isolation of  $\pm 4\text{kv}$
- Wide selectivity range
- Response time  $< 0.65 \text{ sec (50\%)}$   
 $< 1.65 \text{ sec (95\%)}$
- Unique Design with  $\pm 6/10\text{kv}$  Inbuilt Protection

### Thermopile Pyranometer – Type 2 (Class C)



- Used to measure the broad band of the solar radiation flux density from a 180 degree field of view.
- Better response time.
- Digital and Analog outputs are available.
- Class type:  
Class-C (type 2)

### Photodiode Pyranometer



- Used to measure independent, accurate readings of the total available solar radiation
- Digital and Analog outputs are available
- Faster responsivity
- Monitor the wide solar spectrum with increased accuracy

### In House Calibration- As Per ISO 9846 & 9847



- Artificial light source method
- Direct sunlight method
- Make :- Hukse & flux, Luft, Kipp & Zonen, eko etc.
- Repair of Pyranometer
- Universal Compatibility for Multiple Makes

# Central Management System

Centralize & Single Platform to Digitize & Optimize Renewables



Available In



## Dashboard



Live all plant parameters like PR, INS, Reports, Inverter status in single screen

## Centralize Dashboard



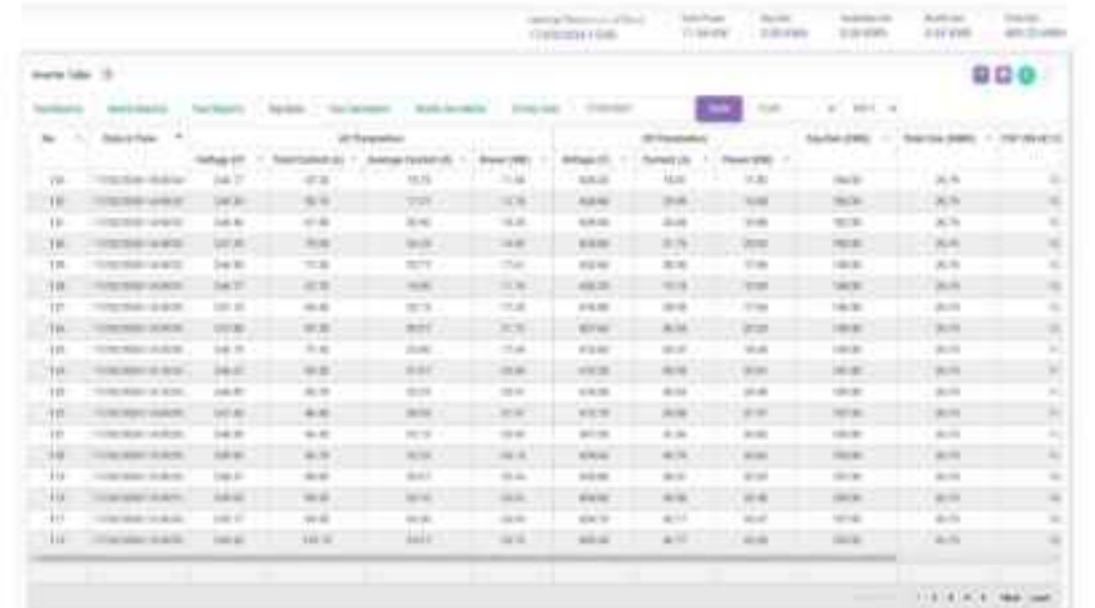
Graphical, Tabular and Map view for all the selected sites. Portfolio level Monitoring & Analytics

## Graphical View



Live, Backlog & Unmonitored energy  
Graphical report Day / Month / year etc.

## Tabular View



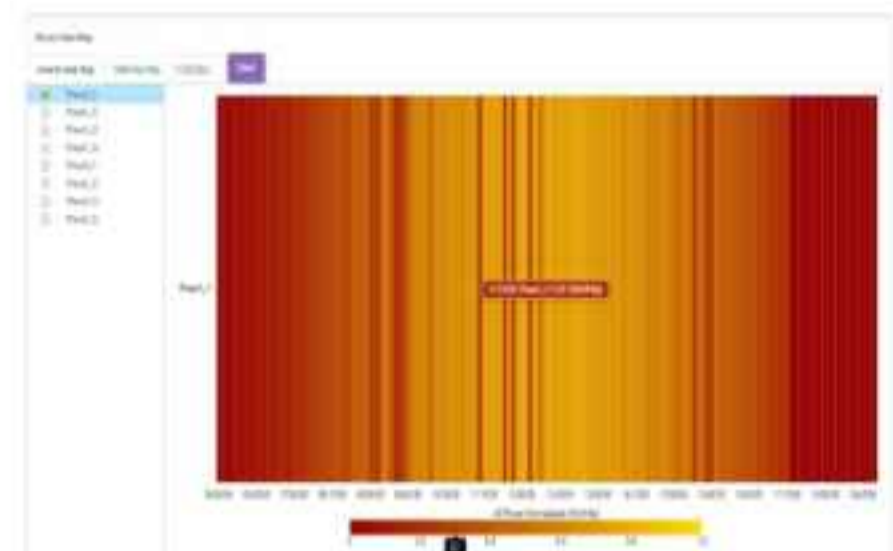
Tabular representation of plant, Inverter, Inverter status logs, DI status log, SMB Wing, Source, Weather

## Block Diagram



Complete view of solar power plant starting from solar panels to load

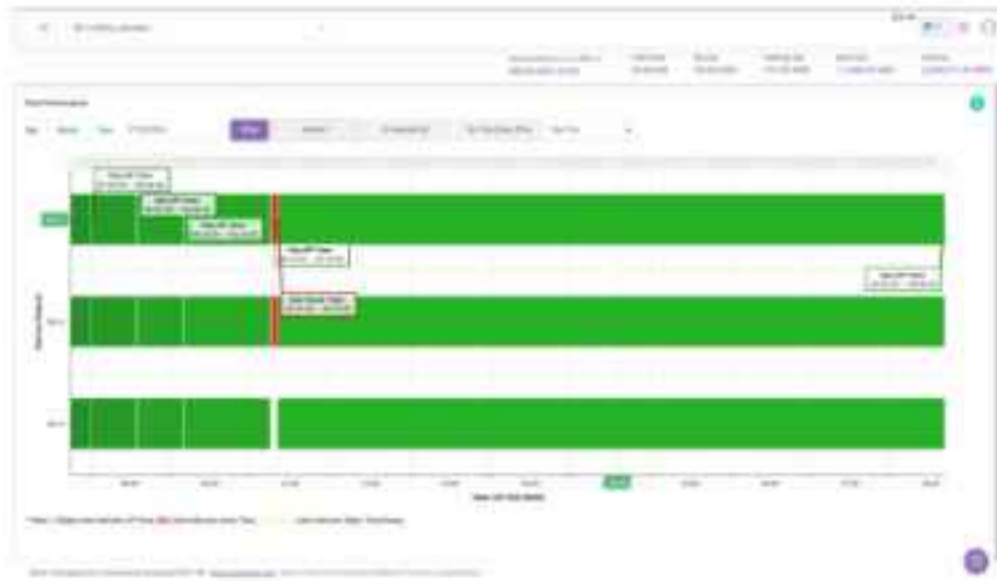
## Heat map



A heat map use to monitor multiple inverters in one place for performance analysis

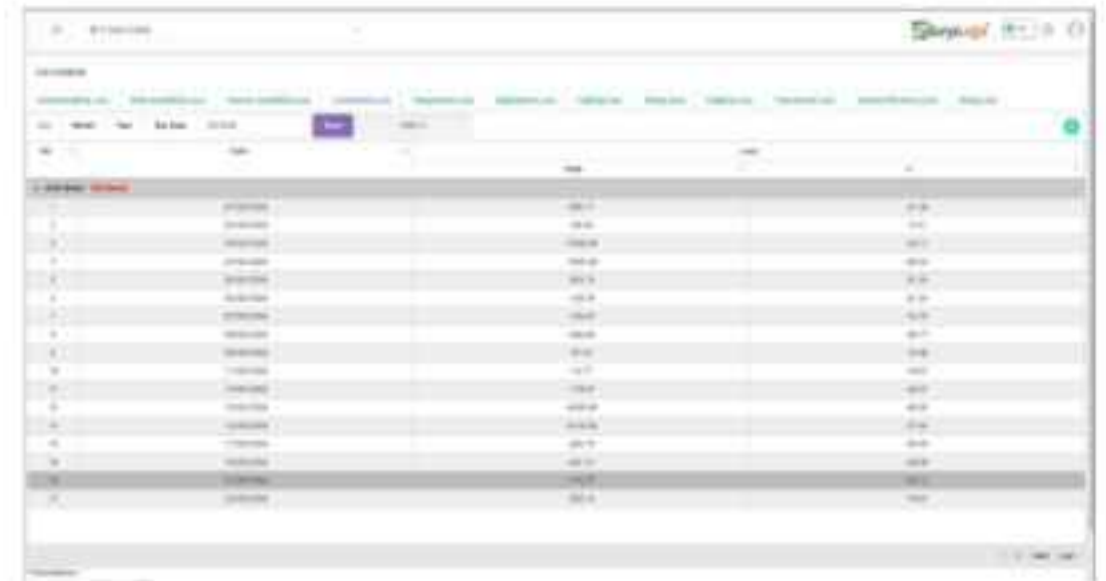
# Portal Snaps

## Time Performance



Tracks inverter uptime and downtime across multiple sources throughout the day, helping identify faults, interruptions, and overall system reliability

## Loss Analysis



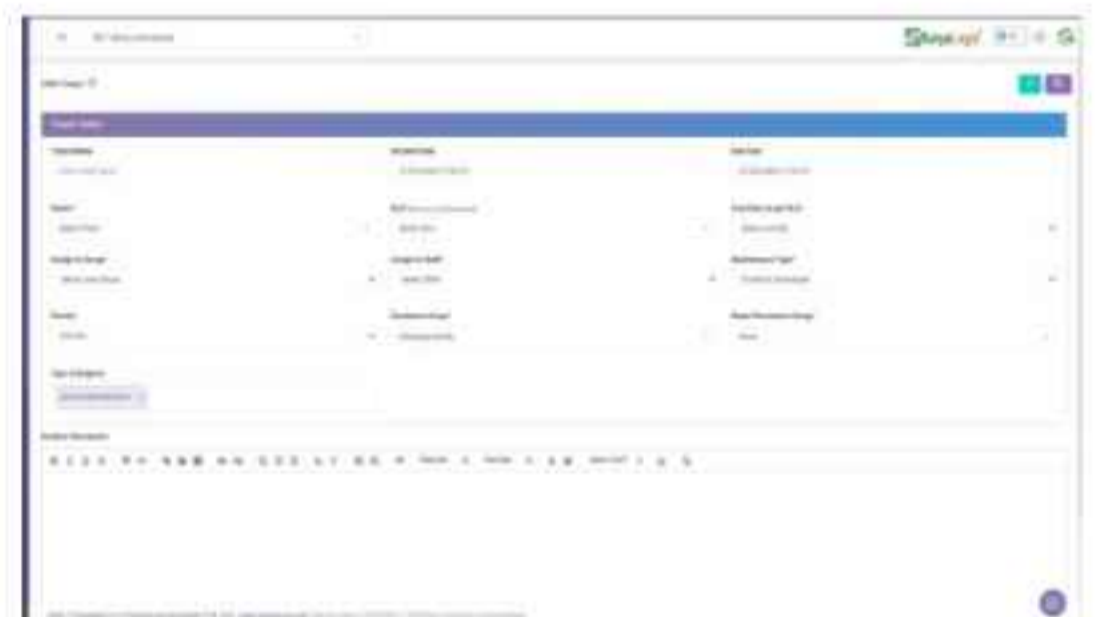
Tracks and analyzes energy losses to optimize plant performance and increase generation

## Customize Report

Report Prepared by SuryaLogix For VRL Kites				
Plant Name: VRL Kites		VRL Kites For VRL Kites		
Plant Address: E-Block No. 100, 117/117/117, V-Block, Durgam Chouk, Hyderabad		Plant AC Capacity: 47000000W / Plant DC Capacity: 10000000W		
Plant Installed Date: 01-01-2020				
Plant Report: 20-09-2024				
Year Generation (MWh)	Month Generation (MWh)	Hour Generation (MWh)	Total Generation (MWh)	EST IRR (MWh)
10000.00	10000.00	10000.00	10000.00	10000.00
Inverter Report: 20-09-2024				
Inverter	Year Generation (MWh)	Month Generation (MWh)	Hour Generation (MWh)	Total Generation (MWh)
Inverter_001	10000.00	10000.00	10000.00	10000.00
Inverter_002	10000.00	10000.00	10000.00	10000.00
Inverter_003	10000.00	10000.00	10000.00	10000.00
Inverter_004	10000.00	10000.00	10000.00	10000.00
Inverter_005	10000.00	10000.00	10000.00	10000.00
Inverter_006	10000.00	10000.00	10000.00	10000.00
Inverter_007	10000.00	10000.00	10000.00	10000.00
Inverter_008	10000.00	10000.00	10000.00	10000.00
Inverter_009	10000.00	10000.00	10000.00	10000.00
Inverter_010	10000.00	10000.00	10000.00	10000.00
Inverter_011	10000.00	10000.00	10000.00	10000.00
Inverter_012	10000.00	10000.00	10000.00	10000.00
Inverter_013	10000.00	10000.00	10000.00	10000.00
Inverter_014	10000.00	10000.00	10000.00	10000.00
Inverter_015	10000.00	10000.00	10000.00	10000.00
Inverter_016	10000.00	10000.00	10000.00	10000.00
Inverter_017	10000.00	10000.00	10000.00	10000.00
Inverter_018	10000.00	10000.00	10000.00	10000.00
Inverter_019	10000.00	10000.00	10000.00	10000.00
Inverter_020	10000.00	10000.00	10000.00	10000.00

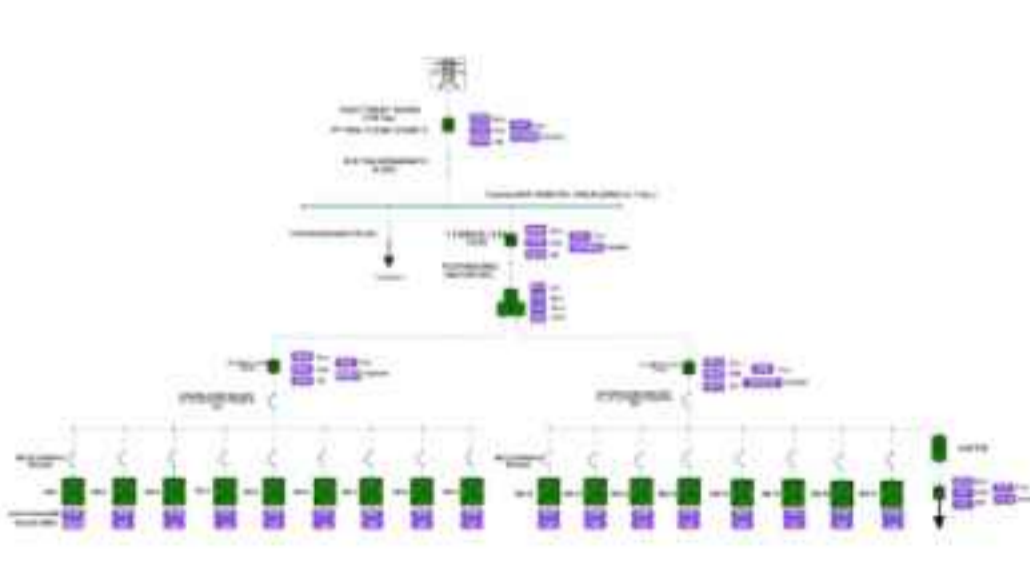
Customize daily performance summary of solar plant to track generation, detect issues, and optimize output

## Ticketing System



Used to create and assign maintenance/service tickets by capturing incident details, assigning responsibility, setting SLA timelines, and tracking issue resolution

## Mimic Diagram



Shows Real-time electrical flow and status of entire solar plant

## O&M Activity Records



Tracks and manages client service agreements, ensuring timely execution, compliance, and service accountability

## PM Kusum Solutions

### SCADA

### WMS

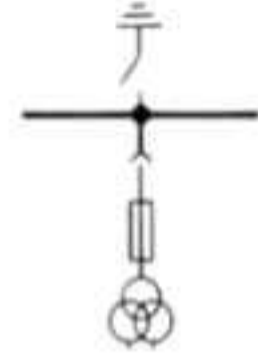
### SMB



Inverter, Meter,  
Breaker Status



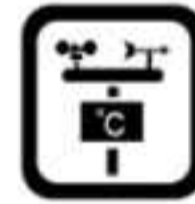
Real-time  
Monitoring



Block Diagram/  
Mimic Diagram



Report  
Generation



WMS Monitoring  
System



Transformer  
Signals

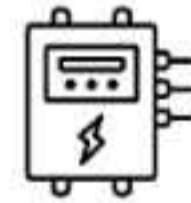
## Surya Ghar RMS



Real-time  
monitoring &  
Mobile App



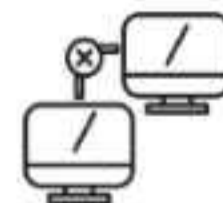
Best suited for  
on-grid inverters



Compatible with  
multiple inverter  
Makes



Easy to install, fully  
Independent, and  
built to last



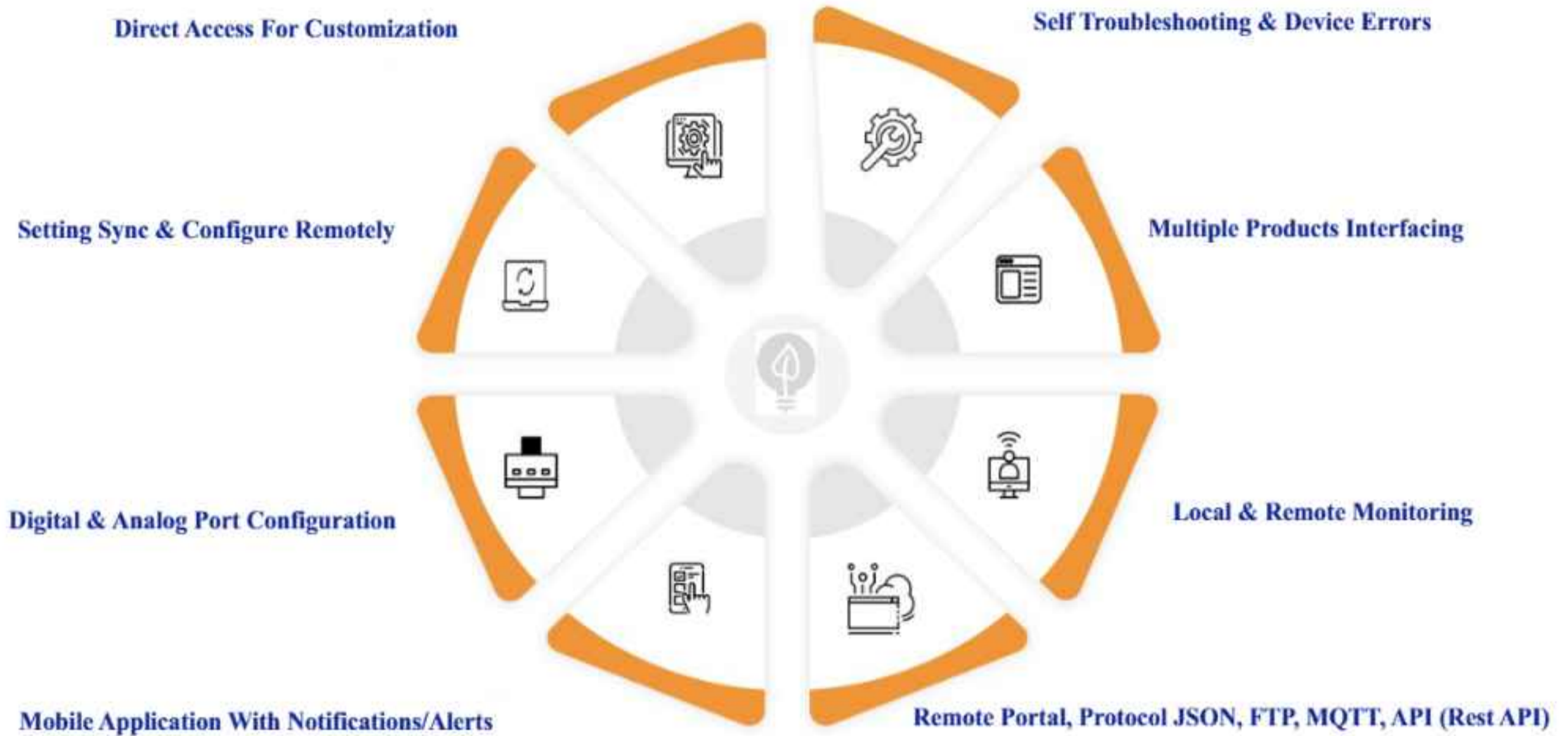
Local Data Storage  
with Auto-Upload  
to portal in case of  
internet failure

### Model Type

SL-RMSST-WiFi  
(Only WiFi)

SL-RMSST-GSM  
(WiFi with 4G-GPRS)

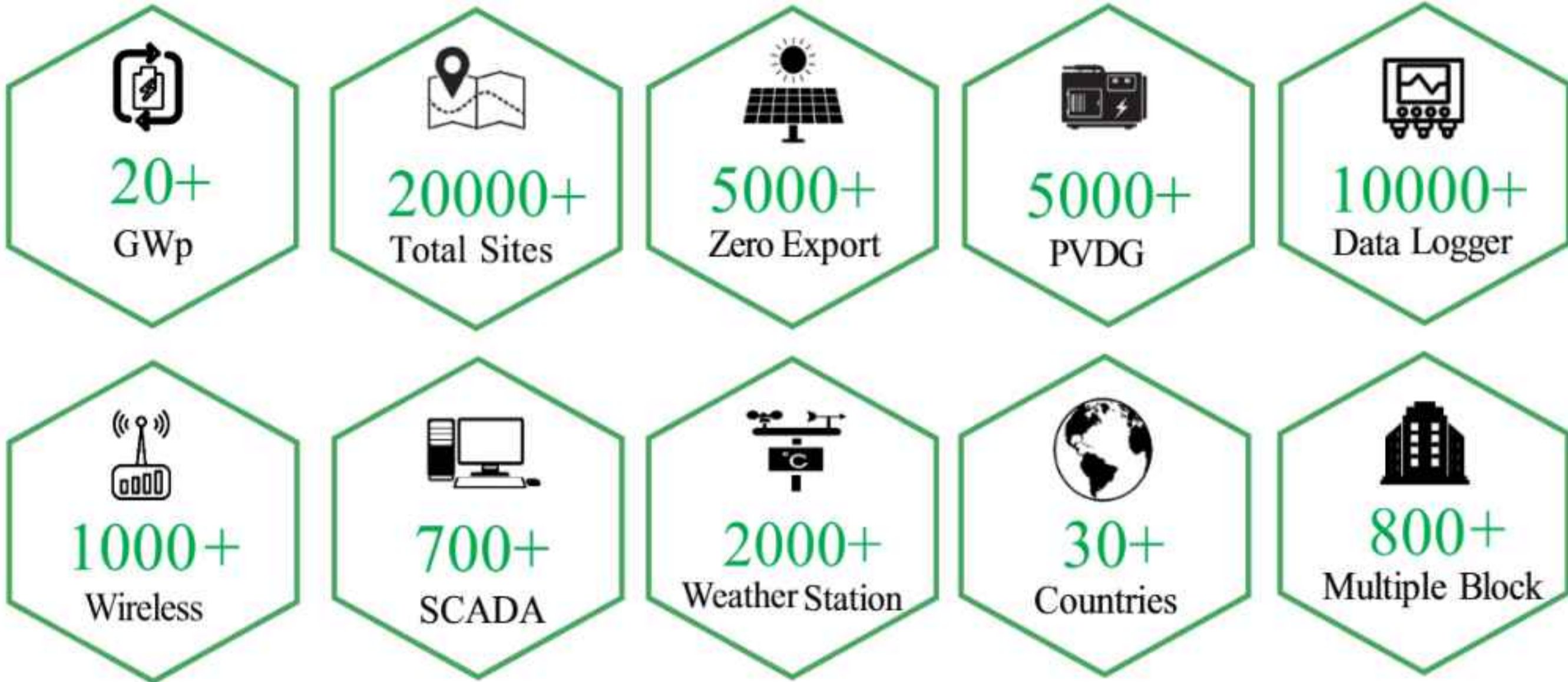
# Unique Features



# Our Solutions

SCADA , PPC & EMS	WMS & Pyranometers	EMS & Micro/Mini Grid	Dataloggers & Controllers
<ul style="list-style-type: none"> <li>• New &amp; Retrofit SMB</li> <li>• New &amp; Retrofit SCADA</li> <li>• EMS Controller - Utility</li> <li>• Power Plant Controller(PPC)</li> <li>• Hybrid PPC/ EMS</li> <li>• RS 485 Extensions</li> <li>• DC-DC Converter(1500v)</li> <li>• Wireless Comm-above 5km</li> </ul>	<ul style="list-style-type: none"> <li>• Class A, B, C Pyranometers</li> <li>• New &amp; Retrofit WMS</li> <li>• Weather Data Loggers</li> <li>• Ambient and Module Sensors</li> <li>• Soiling Station ,Cloud Cover</li> <li>• Rain Gauge, Air Pressure</li> <li>• DNI, DHI, Albedometer</li> <li>• Adjustable Weather Pole</li> <li>• Sensors Repair and calibration</li> </ul>	<ul style="list-style-type: none"> <li>• EMS Controllers – C&amp;I</li> <li>• Data Logger For BESS</li> <li>• Hybrid Smart Controller</li> <li>• SWP Log - Water Pump</li> <li>• PCU Log - Off Grid</li> <li>• RuF Log - On Grid</li> <li>• Grid RMS - Open access</li> <li>• RMS - Stick / Dongle</li> <li>• Industrial EMS</li> </ul>	<ul style="list-style-type: none"> <li>• PV-DG Controller</li> <li>• Zero Export Controller</li> <li>• Data Logger</li> <li>• Sensors</li> <li>• Wireless Communication</li> <li>• Master Slave Config</li> <li>• PLCC converters.</li> <li>• SPD's, Media Converters</li> </ul>

# Portfolio & Presence



## Corporate Office

Suryalogix Cluster, Dhadge Industrial Estate  
 Sinhagad Road Nanded Phata Pune Maharashtra  
 411041

## Branches

Noida, Bengaluru (KA), Guntur (AP)  
 Ahmedabad (GJ), Hyderabad, Kolkata

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