



**SunGreen**  
GREEN CLEAN RENEWABLE

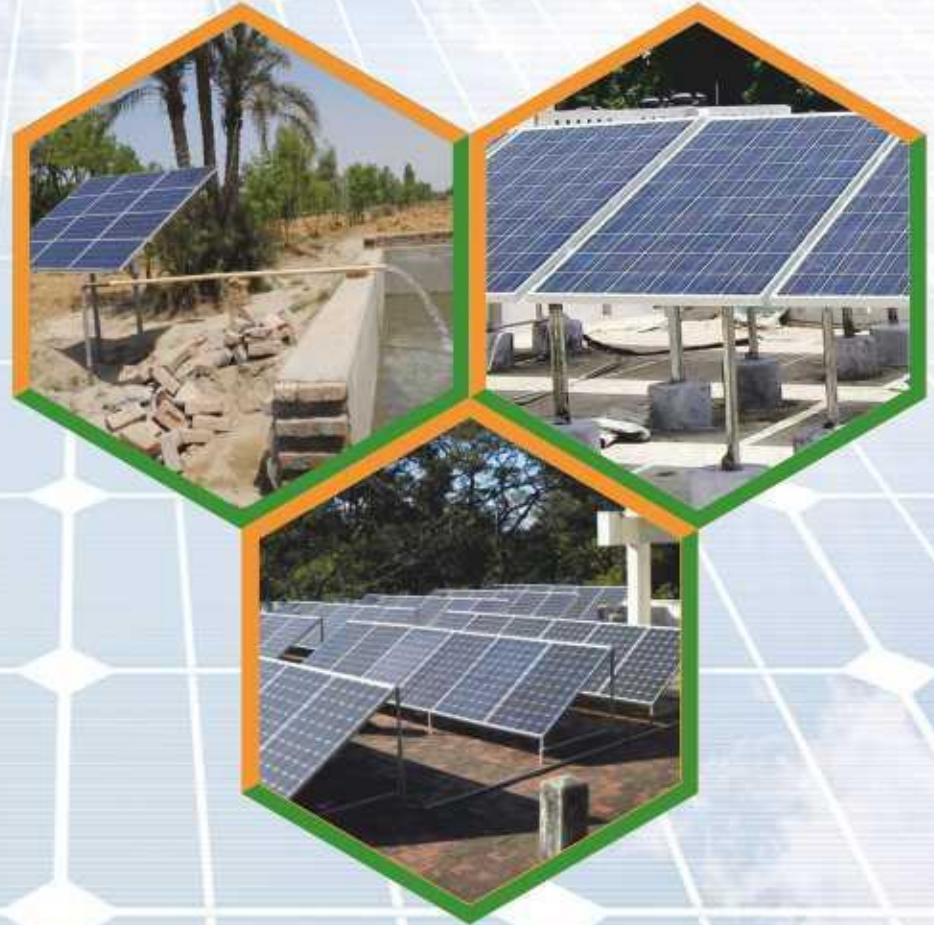


Experience the Power of  
the **Solar** system



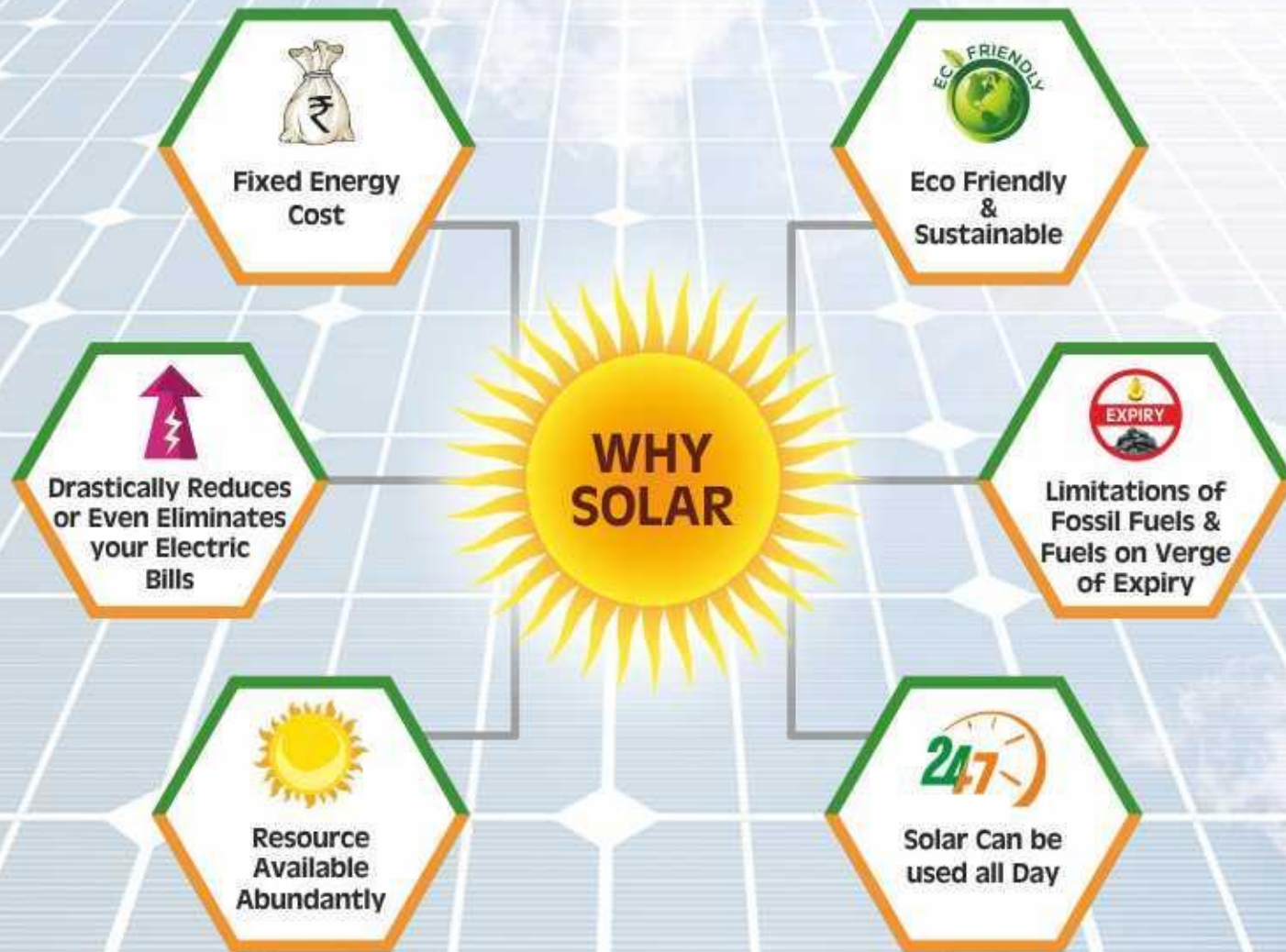
**Complete  
end to end  
Tailormade  
Solutions  
Under One Roof**

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# सोलर अपनायो !!

Bijli Bachao, Desh Bachao, Future Bright aur Green Banao



## ON GRID SOLAR ROOFTOP SYSTEM



## HOW SOLAR WORKS?

- ☉ Solar is a source of Power which can be used to run any capacity being a small household or a heavy industry and is a 24 hour solution.
- ☉ Power through Solar is generated in 5/6 hours in a day and the active loads during that time is fed directly. Extra generated power is sent back to Grid using a Export & Import meter and the Grid plays a role of a virtual battery bank.
- ☉ After sundown or in cases of rainfall the Exported power can be utilized for the power needs making Solar a 24 hour power solution.
- ☉ Import and Export of power is done using a Bi-directional meter which can both import and export power and this power exchange is not chargeable.

## General Practice in the Market



Client is often left wondering how the order is ready without proper documentation or pre-project survey. Turns apprehensive about the credentials of such a company.

## The Sungreen Order Execution Process



## Practice followed by Sungreen

Electrical Scenario Analysis



Site Analysis

Case-1 (All Documents Received)

### Detailed Project Report -Contents

- Observation and System Option for the site
- Assessment of the Buildings
- Shading Assessment and Orientation of different Buildings
- Technical Details of the Proposed System
- Resource assessment and System details
- Basic Block Diagram of the System
- Basic SLD for systems
- Plan Layout of the systems
- Structure Details
- Detailed Bill of Material
- Return On Investment and Cash Flow for 25 years cycle

Accurate & Transparent Solutions for your site is ready.  
Place Order once you are fully satisfied with our services.

**100% SOLUTION AT ZERO COST**

Case-2 (Unable to Provide Documents)

Site survey will be conducted at minimal costs

### Detailed Project Report -Contents

- Observation and System Option for the site
- Assessment of the Buildings
- Shading Assessment and Orientation of different Buildings
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## CapEx & OpEx Models - An Introduction

### CapEx Model

- Capital Expenditures or CapEx is a model where an individual or company makes an upfront investment as an asset for the construction of a Solar Project
- Starts to save immediately after the payback period is achieved for a span of 25/30 years.



### OpEx or RESCO Model

- Operation Expenditures or OpEx is a model where an individual or company does not need to make any upfront investment for having a Solar Project installed.
- Rather the investment & maintenance all is done by the developer on the Roof area of the individual /company and the savings are in the form of reduced cost of power with a fixed cost of power at a reduced rate for a span of 25 years.



## CapEx Model vs OpEx Model

CapEx Model		OpEx / RESCO Model
Investment to be done by the individual or company	<b>1</b>	No investment or upfront cost is required
Starts saving 70/85% from the day of installation for 25 years	<b>2</b>	Starts saving 20/30% of the average spending on Electricity Bills for 25 years
Once payback is achieved in 3-5 years, saving to the tune of 85/90% is guaranteed for a span of at least 20 years+	<b>3</b>	The cost of power remains same for 25 years after Solar Installation
Claim Accelerated Depreciation and Income Tax benefits	<b>4</b>	No such benefits under this model
Cost of O&M is negligible but the same is to be taken care of and is considered as a part of payback period	<b>5</b>	O&M etc is completely taken care by the developer for the life span of the project
No Power Purchase Agreement required	<b>6</b>	Long Term Power Purchase Agreement is to be made with the developer with legal liabilities
Subsidy can be availed in Institutions, Hospitals, Government setup, God man house & Non Profit making organizations	<b>7</b>	No subsidy can be availed

# AN EXAMPLE

Client Name	Name of the Client
Site Address	Location
<b>Assumptions</b>	
Capacity MW	1
Unit Gen per MW (lakhs)	12
Invest per MW (lacs)	450
Project Cost (lacs)	450
Interest	0.1
1st Year Generation	12
Degradation	1.00%
Purchase Price	8
Price/Cost Escalation	3.00%
Loan Tenure (years)	10
O&M lacs/MW	10
Accelerated Depreciation (35% of 20% Investment in 1st Year)	31.5
Accelerated Depreciation (35% of 40% Investment in 2nd Year)	63
Insurance @ 1% p.a.	4.5
Replacement over 25 years	77.83

All figures in INR Lakhs										
REVENUE	1	2	3	4	5	6	7	8	9	10
Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Generation (Lakh units)	12.00	11.88	11.76	11.64	11.53	11.41	11.30	11.18	11.07	10.96
Accelerated Depreciation Benefit	31.50	63.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Net Generation Exported	12.00	11.88	11.76	11.64	11.53	11.41	11.30	11.18	11.07	10.96
Purchase Price	8	8.24	8.49	8.74	9.00	9.27	9.55	9.84	10.13	10.44
Revenue (in Lakhs)	127.50	160.89	99.82	101.79	103.79	105.84	107.92	110.05	112.21	114.43
COSTING										
O&M	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Interest on Project cost	42.75	38.25	33.75	29.25	24.75	20.25	15.75	11.25	6.75	2.25
Insurance @ 1% p.a.	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Replacement	0	0	0	0	0	50	0	0	0	0
Total Cost	57.25	52.75	48.25	43.75	39.25	84.75	30.25	25.75	21.25	16.75
Profit	70.25	108.14	51.57	58.04	64.54	21.09	77.67	84.30	90.96	97.68
INTEREST CALCULATION	1	2	3	4	5	6	7	8	9	10
Op. Bal.	450.00	405.00	360.00	315.00	270.00	225.00	180.00	135.00	90.00	45.00
Repay	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Cl. Bal	405.00	360.00	315.00	270.00	225.00	180.00	135.00	90.00	45.00	0.00
Interest	42.75	38.25	33.75	29.25	24.75	20.25	15.75	11.25	6.75	2.25
CASH FLOW	1	2	3	4	5	6	7	8	9	10
Profit	70.25	108.14	51.57	58.04	64.54	21.09	77.67	84.30	90.96	97.68
Prev. Year Cash Flow CF	0	25.25	88.39	94.96	108.00	127.54	103.62	136.30	175.59	221.56
Repayment (Principal)	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00	45.00
Closing Cash Flow	25.25	88.39	94.96	108.00	127.54	103.62	136.30	175.59	221.56	274.23
IRR CALCULATION										
Investment	-450	0	0	0	0	0	0	0	0	0
Profit	70.25	108.14	51.57	58.04	64.54	21.09	77.67	84.30	90.96	97.68
Interest	42.75	38.25	33.75	29.25	24.75	20.25	15.75	11.25	6.75	2.25
Net Flow	-337.00	146.39	85.32	87.29	89.29	41.34	93.42	95.55	97.71	99.93

## PREFERRED SECTORS

### For CapEx

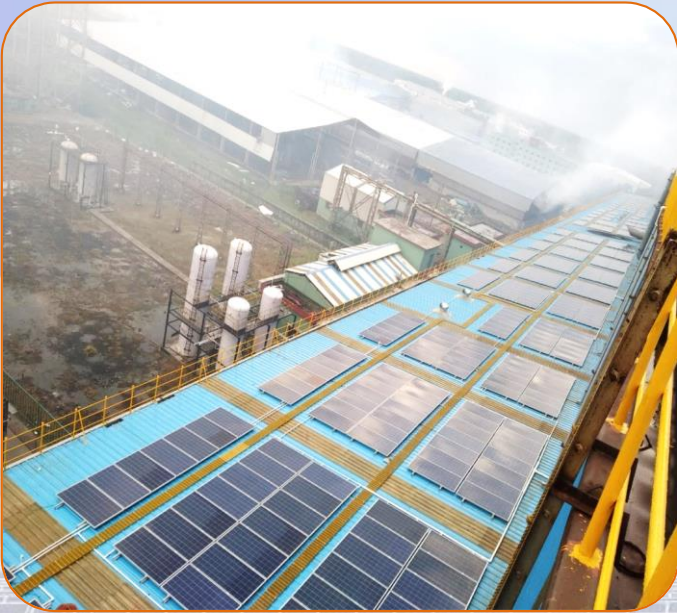
- ☺ Standalone Houses
- ☺ Housing Complex
- ☺ Schools, Colleges, Institutes
- ☺ Hospitals
- ☺ God man house
- ☺ Non Profit Organizations
- ☺ Industries and Factories having a power requirement of less than 200KVA/ 170KW per day

### For OpEx

- ☺ Steel, Cement, Paper, Chemical and other heavy industries or companies having daily power requirement larger than 200KW.
- ☺ Large Commercial Establishments like Mall, IT/ SEZ Parks, Industrial Parks
- ☺ Companies having Long Term Credit Rating of BBB- and better.
- ☺ To avail better Power Tariffs and fixed cost of power on long term basis

# Few Pictures of Our Installed Projects

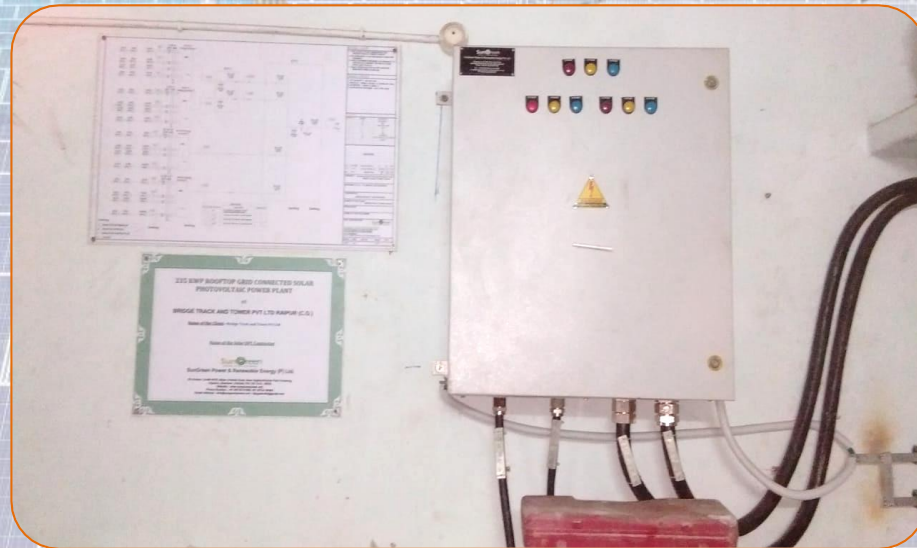








BRIDGE, TRACK & TOWER CAPACITY - 295 Kwp





ANMOL INDUSTRIES LIMITED CAPACITY - 528.45 Kwp



DELHI PUBLIC SCHOOL, MEGACITY CAPACITY - 245.37  
Kwp

SunGreen  
GREEN CLEAN RENEWABLE



# Few of Our Credentials



## TESTIMONIALS/ APPRECIATION



### JINDAL (INDIA) LIMITED

CIN - U51109WB1991PLC092393

Dated – 1.09.19

SUNGREEN POWER & RENEWABLE ENERGY (P) LTD.  
'PS Aviator', Unit# 407B, Major Arterial Road,  
Atghara Chinar Park Crossing, Atghara, Newtown,  
Kolkata 700 136, W.B., INDIA  
Email – [vijaypatodia@gmail.com](mailto:vijaypatodia@gmail.com)/ [info@sungreenpower.net](mailto:info@sungreenpower.net)  
Phone - +91 90739 01698/ 96744 56890

#### To Whomsoever It May Concern

This is to congratulate the entire team of **SunGreen Power & Renewable Energy Pvt Ltd** for timely completion of **1680 kWp Solar Rooftop PV ON Grid system** at our Ranihati works. The project has been executed in an utterly professional way and we are highly pleased with the quality of execution.

We also take this opportunity to congratulate the management and the entire **SunGreen** team for good quality of workmanship and appreciating that the project has been implemented to our complete satisfaction. The project was executed in a very professional and smooth method. We are once again gratified that the complete work was finished within scheduled time and adeptly.

We highly recommend one and all to use **SunGreen Power & Renewable Energy Pvt Ltd** for all kinds Solar Installations with the assurance that everyone will get the same kind of commitment and services we did.

Undoubtedly, **SunGreen** can be thoroughly be trusted upon for their prompt service, excellent quality and commercially feasible solution. We aspire **SunGreen Power & Renewable Energy Pvt Ltd** all the best for its future accomplishments.

For, Jindal India Ltd.

  
(Authorized Signatory)



Date : 14.05.2019

#### To Whomsoever It May Concern

We are very much delighted to apprise that **M/s. SunGreen Power & Renewable Energy Pvt Ltd** has effectually designed, erected, installed and commissioned the **528.45 kWp Solar Rooftop PV On Grid system** at the plant of **M/s. Anmol Industries Ltd**, Maity Para, Delhi Road, Dankuni, Hooghly 712311, West Bengal.

The project has been executed in an utterly specialized way and we are highly satisfied with the quality of execution. We are fully gratified that the whole work was completed well before time and expertly.

We further take this opportunity to applaud **SunGreen** team and its management. We are happy to mention that **SunGreen** is just a call away whenever been called upon and has elegantly acknowledged all our comments from time to time and have implemented the same to our complete gratification.

#### For Anmol Industries Limited

  
**Dilip Kumar Choudhary**  
(Managing Director)

Anmol Industries Limited

## TESTIMONIALS/ APPRECIATION



**SUNGREEN POWER & RENEWABLE ENERGY (P) LTD.**  
'PS Aviator', Unit# 407B, Major Arterial Road,  
Atghara Chinara Park Crossing, Atghara, Newtown,  
Kolkata 700 136, W.B., INDIA  
Email - vijaypatodia@gmail.com/ info@sungreenpower.net  
Phone - +91 90739 01698/ 96744 56890

### To Whomsoever It May Concern

It is a matter of high value to have associated with Sungreen Power & Renewable Energy Pvt Ltd which has a high reputation, expertise and experience in the solar industry. The project, design and servicing wing of Sungreen Power & Renewable Energy Pvt Ltd has produced and ensured quality with assured quality control. The performance, aesthetics and working quality are excellent. We would like to engage with Sungreen as a long-term partner.

We take this opportunity to applaud the management and the entire team members of Sungreen for good quality of workmanship and appreciating that the project has been implemented to our complete gratification. The project was executed in a very professional and smooth method. We are once again gratified that the complete work has finished within scheduled time and adeptly.

This is to congratulate the entire team of Sungreen Power & Renewable Energy Pvt Ltd for timely completion of 3010 Kwp Solar Rooftop PV ON Grid system at Jayashree Textiles Mills Ltd. (Aditya Birla Group), Rishra, West Benagl. The project has been executed in an entirely specialized way and we are highly delighted with the quality of execution. Sungreen empowers a billion lives through sustainable, affordable & innovative energy solutions. Empower a billion lives through sustainable, affordable & innovative energy solutions.

Irrefutably, Sungreen can be systematically trusted upon for their prompt service, excellent quality and commercially feasible solution. We aspire Sungreen Power & Renewable Energy Pvt Ltd all the best for its future endeavors.

For, Jayashree Textiles Ltd

  
(Authorized Signatory)  


Grasim Industries Limited  
Jaya Shree Textiles  
Rishra, P.O.: Prabhansagar, Dist.: Hooghly- 712 249, W.B. India

Telephone : 0091 33 2600 1200  
Fax : 0091 33 2672 2626 / 1683  
Website : www.linenclub.com

Shankar Kutria (GM-Materials) Mob. 9088162213  
E-mail: shankar.kutria@adityabirla.com  
Manoj Gupta (Manager-Materials) Mob. 9088107259  
E-mail: manoj.g@adityabirla.com

CIN NO. - L17124MP1947PLC00410  
Registered Office : Birlagram, Nagda - 456 331 (M.P.)



**JINDAL (INDIA) LIMITED**

Dated - 01.03.2021

CIN - U51109WB1991PLC092393

**SUNGREEN POWER & RENEWABLE ENERGY (P) LTD.**  
'PS Aviator', Unit# 407B, Major Arterial Road,  
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Kolkata 700 136, W.B., INDIA  
Email - vijaypatodia@gmail.com/ info@sungreenpower.net  
Phone - +91 90739 01698/ 96744 56890

### To Whomsoever It May Concern

We want to thank the entire team of Sungreen Power & Renewable Energy Pvt Ltd for their amazing work they did for appropriate completion of 5 MWP Solar Rooftop PV ON Grid system at Jindal India Limited- Jangalpur project.

We would like to inform you and your team with great pleasure that our project was a huge success and we would like to thank all of you from the core of our heart. There is no denying the fact that we have achieved a competitive edge in the market and it would have not been possible without your and your team's hard work, dedication and with great efficacy.

Your ability to collaborate with other departments to get the work completed ahead on time and the extra effort your team put into this project shows your incredible teamwork and leadership skills. The fact and figures presented by you in the completion of this project is truly commendable. I really appreciate your team's effort and professionalism by which they have completed the project well on time.

We would like to formally and sincerely express our gratitude for the amazing work your team has accomplished for the successful project completion in all aspects. This has been the best level of responsibility and your leadership, which has been performed exceptionally well organizing the team, delegating tasks and overseeing the entire project to successful completion.

Sungreen's ability to work through unforeseen challenges and collaborate so well with the rest of the team is highly impressive and shows exceptional critical thinking skills and a true dedication. We would like to thank you and congratulate your team for the hard work and dedication.

We wish that Sungreen Power & Renewable Energy Pvt Ltd will continue the spirit and momentum in the upcoming projects also.

Wishing Sungreen all the best and good luck ahead,

Sincerely,  
Jindal India Limited

Authorized signatory



Regd. Office : N.H.-6, Vill. - Jangalpur, P.O.- Argon, G.P. - Andul, Dist. - Howrah-711 302, Ph. - 033-2647-0727, 2669-631920, Fax : 033-2669-0356, www.jindalindia.com  
City Office : LMJ Chamber, (2nd Fl.), 15-C, Hemanta Basu Sarani, Kolkata-700 001, Ph. : 2246-1160/1162/2266, Fax : 2248-1059

# Operation & Maintenance

SunGreen Power & Renewable Energy Operations and Maintenance services are designed to maximize the lifetime value of your solar power plant assets, We pro-actively monitor and manage your plants minimizing downtime and increasing site availability, resulting in maximum energy production, revenues and profitability. Customized service packages offer the right fit for any solar power plant owner.

Plant Supervision

Performance Monitoring

Issue Detection

Daily/Monthly Annual Report

Weather station Sensor maintenance

Site Health and safety

Spare parts management

Warranty management

Spare parts management

Response Time Guarantee

Preventive maintenance

Corrective Maintenance

Safety Management

# Operation & Maintenance

## O&M Step by Step

- Solar Plant Supervision round the clock
- Performance Monitoring
- Root Cause analysis of all problems
- Plant performance analysis & performance report generation
- Spare parts management for service activities
- Warranty management
- Reduce down time
- Preventive maintenance
- Corrective Maintenance
- Safety Management

## Why is a Service & Maintenance Package Critical for your Solar System

To ensure high generation from your solar system

To ensure overall safety and longer equipment life

Preventive Maintenance to timely detect any faults and prevent failures

To ensure on-call service support and software updates

To get access to online plant Monitoring services and consumer mobile App



# Few Pictures of Our Operation & Maintenance





# Cleaning Activities with Proper PPE



# Cable Termination Checking on INV Module Tightness Checking



# Current Transformer Maintenance, LA spike condition checking, AC Parameter Checking



# Remote Monitoring System



**“Solar Plant Monitoring is the only tool to count generation, perhaps money!”**

## Facilities of Remote Monitoring System

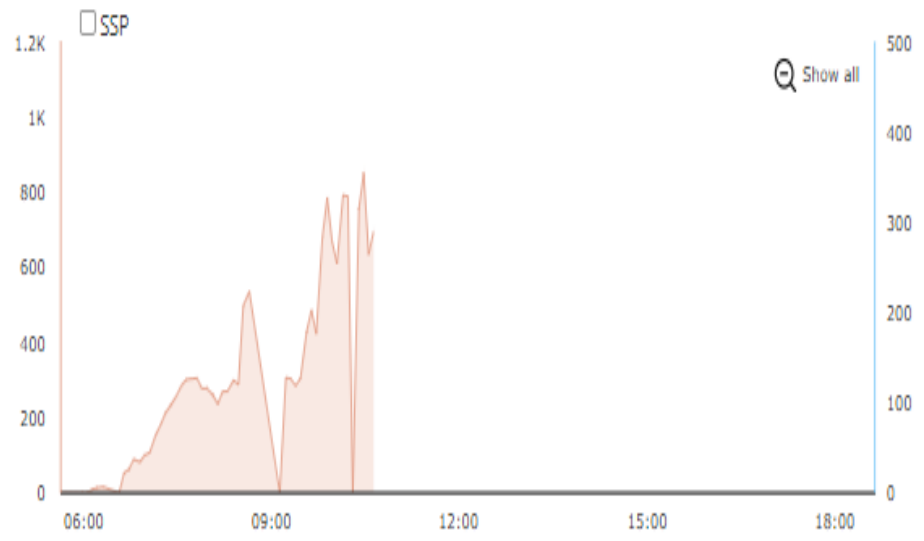
- ✓ We can monitor the plant from any where
- ✓ Fault Diagnosis Remotely & Take necessary action immediately
- ✓ system down time identification & take action
- ✓ Analysing energy consumption
- ✓ Get proper Generation Data
- ✓ Optimising energy usage
- ✓ Observe individual Component performance (INV , ICP , Module etc)
- ✓ immediate Fault identification
- ✓ Observe plant performance parameters
- ✓ Supervise progress of the components of a solar power plant

# Overview of Monitoring system

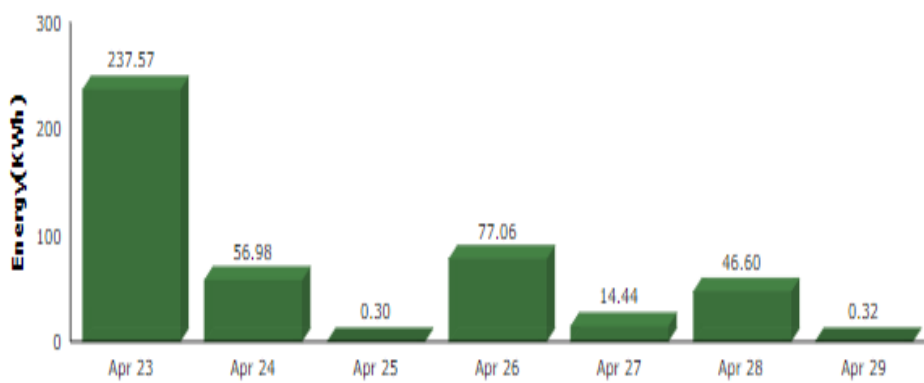
Dashboard

Solar Power 0.00 (KW) Day Gen 0.19 (KWh) Month Gen 433.46 (KWh) CUF 0.00 (%) Total Gen 615.63 (KWh)

<b>Weather</b>	IRR 693.50 (W/m2) INS 1.37 (KWh/M <sup>2</sup> /Day)	<b>PR</b>	Day - Month -	<b>Temp</b>	Amb 36.40 (°C) Mod 58.19 (°C)	<b>Earnings</b>	CO <sub>2</sub> 487.00 (Kg) Savings 6.15 (K) (INR(₹))
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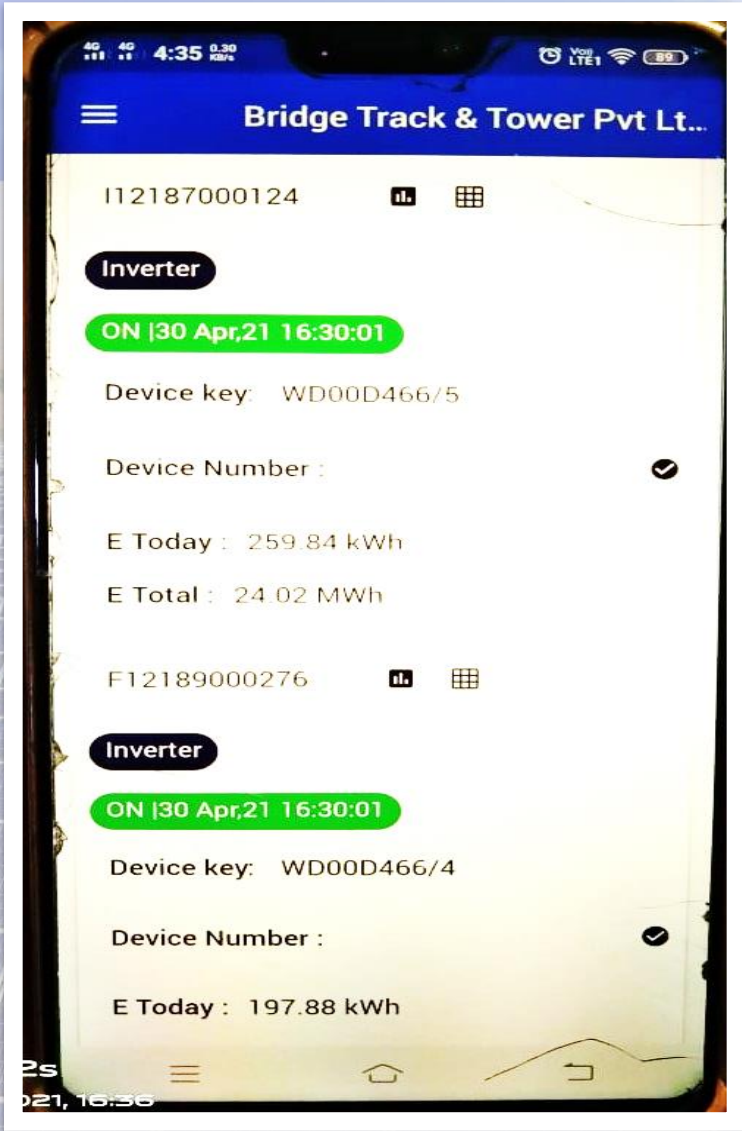
Source Data		Connected Source : Grid	
*Solar Gen	0.07 (KWh)	Voltage	0.00 (V)
Total Import	1.00 (KWh)	Current	0.00 (A)
Total Export	0.00 (KWh)	PF	0.00
*Day Import	0.00 (KWh)	Frequency	0.00 (Hz)
*Day Export	0.00 (KWh)	Active Power	0.00 (KW)
Load (Solar + Source)	0.00 (KW)	Apparent Power	0.00 (KVA)



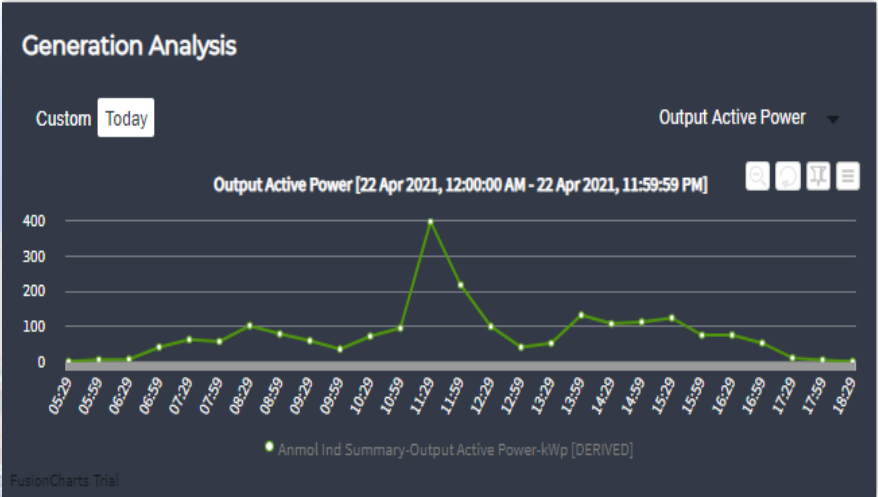
Plant Status & Error	
Solar Status	Solar-ON Source Grid
Inverter Status	MB_INV-1 MB_INV-2 GH_INV-3 BH_INV-4 BH_INV-5
SMB Status	S-01 S-02 S-03 S-04 S-05

# Remote Monitoring system Features

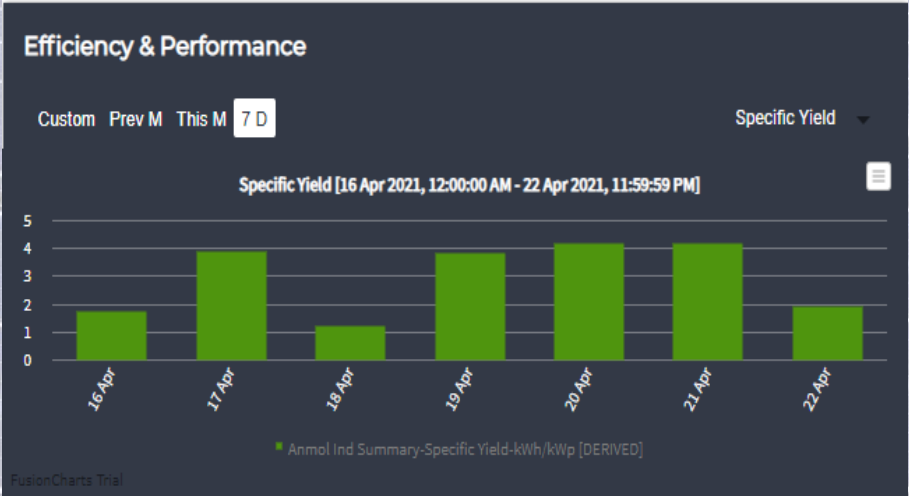
## Mobile View of the RMS



## Generation analysis



## Efficacy & Performance



# INV Fault Status & WMS system

## INV Fault Status & alarm

select parameters

select date

Operating State Details, Fault Code Details,...

20/04/2021 - 20/04/2021

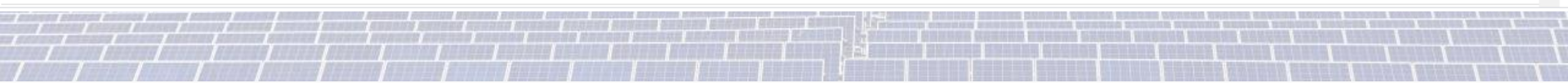
REFRESH

DOWNLOAD BULK DATA

SET PRIORITY

DOWNLOAD CURRENT SET

Timestamp	Operating State Details	Fault Code Details	AC Voltage Phase BN [V]	AC Voltage Phase AN [V]	DC Input Current 2 [A]	DC Input Current 1 [A]	DC Input Voltage 2 [V]	DC Input Voltage 1 [V]	String Status
20/04/2021 16:40:01	Wait	Isolation Failure	241.9	238.2	0	0	706.4	703.3	1260
20/04/2021 16:30:00	Wait	Isolation Failure	242.2	238.4	0	0	705.3	708.2	1260
20/04/2021 16:20:01	Wait	Isolation Failure	241	237	0	0	709.2	705.2	1260
20/04/2021 16:10:01	Wait	Isolation Failure	237.8	234.2	0	0	698.1	698.8	1260
20/04/2021 16:00:00	Normal		238.7	235.3	2.7	3.5	569.4	605.3	16
20/04/2021 15:50:00	Normal		239.4	235.7	3.9	4.2	558.3	604.2	16
20/04/2021 15:40:00	Normal		240.1	236	4.7	5	559.6	599.9	12



### WMS

View Data

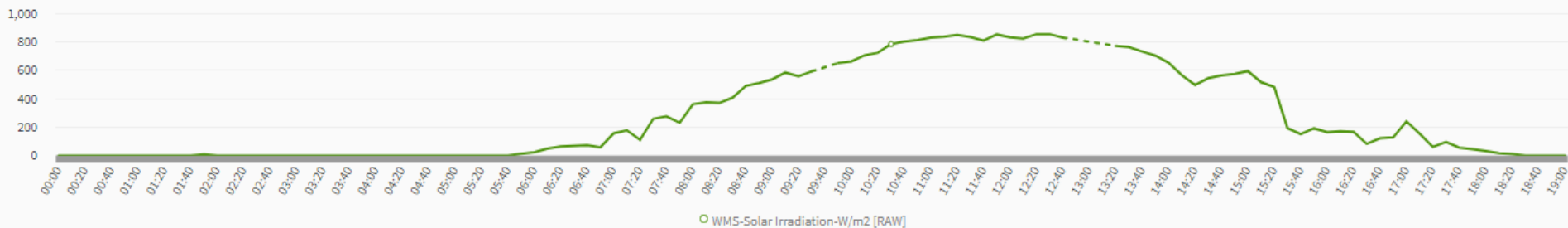
Custom Today

WMS

Units

Solar Irradiation

Solar Irradiation [22 Apr 2021, 12:00:00 AM - 22 Apr 2021, 11:59:59 PM]





## Why Choose SunGreen ?

**We are not satisfied until projects meet our own personal high standards**

**We never compromise with our quality**

**We don't believe in Silver bullet solution**

**We Value Customer intelligence to identify clients need**

**We believe our customers aren't just numbers on a spreadsheet but real people who you engage with on an ongoing basis, collecting feedback that grows more meaningful over time. Real people, higher response rates, actionable insight - our service gives you the context you need to improve the entire customer lifecycle**

**Our team members are drawn from across a multi disciplinary background which gives considerable professional depth and breadth of world view**



## Our USPs

**Technically Feasible & Commercially Viable Solutions**

**No Hidden Cost**

**Best Possible Solutions with all Supporting Data**

**Complete Engineered Solution without any Pocket Pinch**



**Convince & Collaborate**

### **Our Core Principle & Working Philosophy**

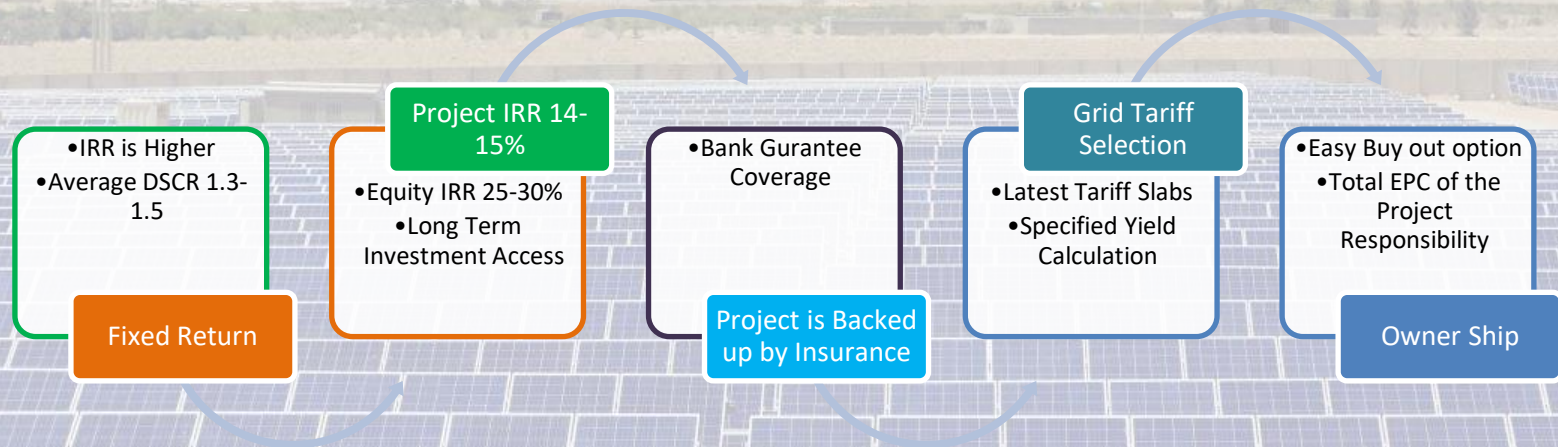
We strongly believe in educating clients & convincing them with proper backup documents. We believe in taking the order only if the client is totally satisfied-if not, we would rather not take the business. We would continue our best possible efforts to convince the client in future

# Our Asks



\* SunGreen is looking for Investor in Solar Power Plant OPEX Model.

\* Why to Invest



## Our Asks



\* SunGreen is looking for Potential Client Having –

- ❖ Minimum Connected Load 50 KVA or More
- ❖ Annual Electricity unit Consumption Min 1 Lakh unit or More
- ❖ Electricity Bill Min 7-8 Lakh or More
- ❖ Want to reduce Electricity Bill

## Type Of Industry



- ❖ Steel Industry
- ❖ Cement Industry
- ❖ Textiles
- ❖ Hospital
- ❖ School
- ❖ Chemical Industry
- ❖ Electrical Industry
- ❖ Paper Industry

**Connect with us**

PS Aviator, Unit # 407B,  
Major Arterial Road  
Near Atghara Chinar Park Crossing,  
Newtown, Kolkata - 700136, India

H/P: +91 98360 03924

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