



**SML SOLAR**  
A DIVISION OF SML MOTORS

**"Solar power is the last energy resource that  
isn't owned yet - nobody taxes the sun yet."**

**-- Bonnie Rait**



**ROOFTOP SOLAR  
ENERGY SYSTEM**

A COMPLETE POWER SOLUTIONS

# Content

**Company**

**Products**

**Projects**

# Company Description

**Our vision and mind are focused on the endless application of solar energy. In the year 2022, our respected Chairman, Mr. C.C. William Verghese, opted for a group of like-minded people to join hands with the institution for maximum utilization of the new generation energy resource – Solar Power. For that he has brought an array of young, professional, energetic and most experienced technical experts.**

**Even after 4 decades, each and every customer do rely on our services and contributions. Our motto is to come in the list of top-rated distributors of Solar Panels and inverters. Thereafter, we are concentrating on the materialization of innovative projects regarding the so-called: “Future Energy Resource – Solar Power”.**

**Now we have become one among the major and known quality-maintained distributors of South India. We have tie-ups with adequate internationally known companies to maintain and increase the quality of our solar-grid products.**

## Solar Module and Energy Solutions

- The group is committed to providing world class & innovative Services and Products across a range of businesses
- Polycrystalline & Mono-Perc Half-Cut Solar Panels
- Skilled & Experienced Engineers
- Experienced Technicians and High-Quality Work
- 2 MW of EPC Integration capacity by the end of 2023

## Energy Business

- Development and construction of utility-scale solar Plants /Projects
- Total Projects in Pipeline: 1 MW
- Ongoing Projects: 250 KW

# Leading Solar Company in KERALA

- SML Solar is one of the leading Solar Company in Kerala
- We have completed total 500KW Projects in the year, 2023
- Total Projects in Pipeline: 1 MW
- Ongoing Projects: 250 KW
- Many of our customers have been able to reduce their monthly bills by 95%
- Convert your Petrol or Diesel Cars into an Electric Vehicle to reduced fuel expenses
- Replacing cooking gas with electric induction cooktop is safer and more efficient
- Grid-Connected Systems are affordable and easy to maintain. No need for using battery

**1 MW of Solar Project Pipeline; 250 KW Ongoing Projects**

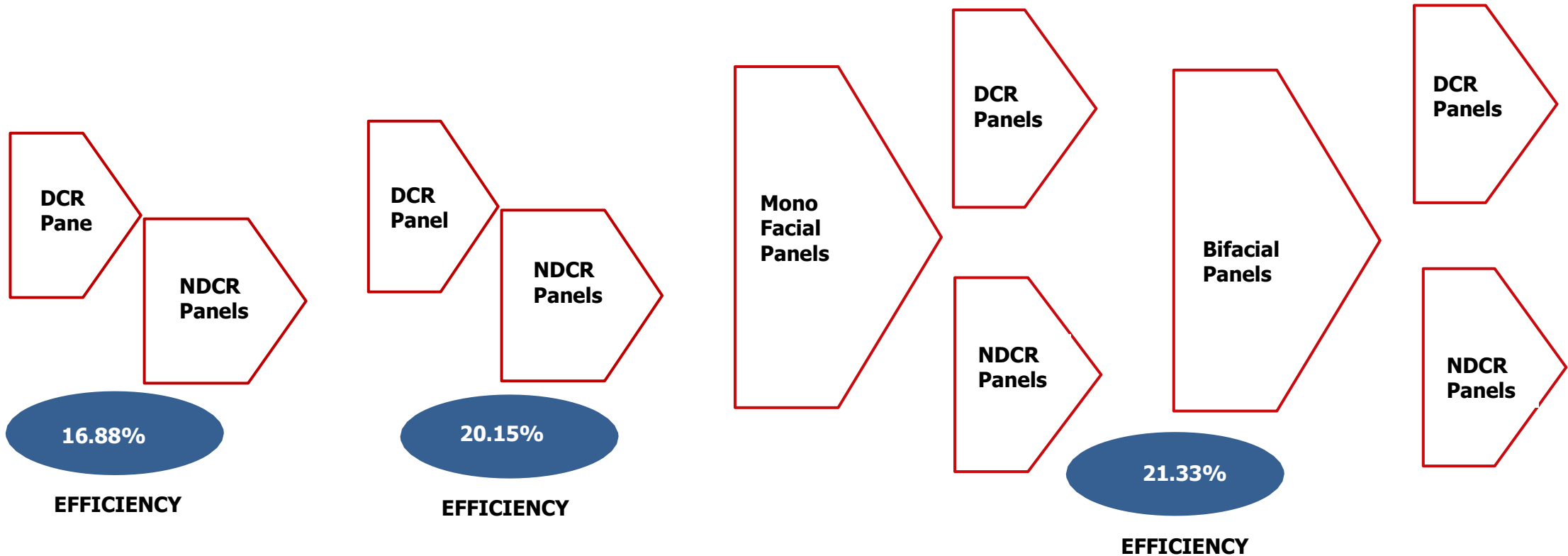
# Content

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# Cell and Module Technology Roadmap



Poly Crystalline & Mono Crystalline

Mono PERC Half Cut

# Poly Crystalline Solar Panels

## Poly Crystalline Panel

Module Wattage	<b>330W</b>
Module Efficiency	<b>16.88%</b>
Module Dimensions	1985× 1000 × 35mm



- Module Wattage-330Wp, Module Efficiency up to 16.88%
- **Industry leading warranty: 10 Years Product Warranty & 25 Years Linear Power Warranty**
- **Cells Specifications (Number, Size): 72 Cells, 157mm X 157mm**
- Lower temperature coefficient (Pmax): -0.4080%/ °C



# Mono-Crystalline Solar Panels

## Mono-Crystalline Panel

Module Wattage	Up to <b>390W</b>
Module Efficiency	Up to <b>20.15%</b>
Module Size	1985 × 1000 × 35mm



- Module Wattage-390Wp, Module Efficiency up to 20.15%
- **Industry leading warranty: 10 Years Product Warranty & 25 Years Linear Power Warranty**
- **Cells Specifications (Number, Size): 72 Cells, 158.75mm X 158.75mm**
- Lower temperature coefficient (Pmax): -0.4080%/ °C

# Mono-Perc Half Cut Solar Panel

## Mono-Perc Half Cut Panel

Module Wattage	Up to <b>545W</b>
Module Efficiency	Up to <b>22%</b>
Module Size	2274 × 1134 × 35mm

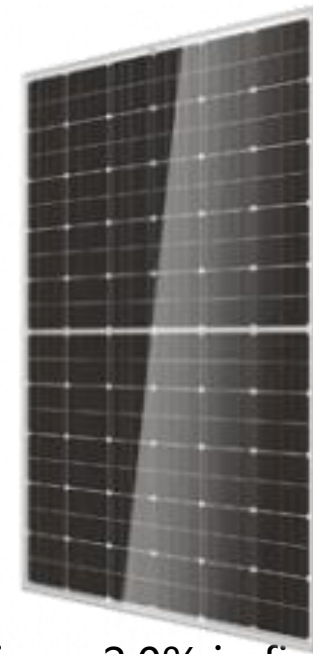


- Module Wattage-545Wp, Module Efficiency up to 21.33%
- **Industry leading warranty: 12-year performance warranty, Linear Power Warranty for 27 years with 2% for 1<sup>st</sup> year degradation and 0.55% from year 2 to year**
- **Cells Specifications: M10 144 Cells**
- Lower temperature coefficient(Pmax): -0.35%/ °C

# Mono-Perc Half Cut Bifacial Solar Panel

## Mono-Perc Half Cut Panel

Module Wattage	Up to <b>545W</b>
Module Efficiency	Up to <b>22%</b>
Module Size	2266 × 1133 × 35mm



- Module Wattage-545Wp, Module Efficiency up to 21.33%
- **Industry leading warranty: 12-year performance warranty**, Power Degradation <2.0% in first year <0.45%/year in 2-30 Years
- **Cells Specifications: M10 144 Half-cut mono-crystalline P-type PERC bifacial solar cells; Multi bus bar**

# On-Grid Inverters



## KSOLARE Inverters

Inverter Capacity	Up to <b>2-250kW</b>
Conversion Efficiency	Up to <b>98.7%</b>
Standard Warranty	8 Years

- Inverter power up to 250kW, Conversion efficiency up to 98.7%
- **Standard Warranty: 8-Year Standard Warranty**




# SOFAR Inverters

Inverter Capacity	Up to <b>3 – 250KW</b>
Inverter Efficiency	Up to <b>97.7%</b>
Standard Warranty	8 Years

- Inverter power up to 250kW, Conversion efficiency up to 98.7%
- **Standard Warranty: 8-Year Standard Warranty**
- Warranty is extendable upto 15 Years



# International Quality Certificates

Approvals & Certifications for Panels	Approvals & Certifications for Inverter
<ul style="list-style-type: none"> <li>• IEC 61215 Ed2, IEC 61730, IEC 61701, UL 61730, MCS, JET, CEC, CEC-Aus, IEC 62716, IEC 62782, IEC 60068-2-68, IEC 61853, BIS,</li> <li>• ALMM Listed</li> <li>• CE conformity</li> </ul> 	<ul style="list-style-type: none"> <li>• EMC: EN 61000-6-1, EN 61000-6-3, EN 61000-3-2, EN 61000-3-3</li> <li>• Safety Standards: IEC 62116, IEC 61727, IEC 61683, IEC 60068(1,2,14,30), IEC 62109-1/2</li> <li>• Grid Standards: AS 4777, VDE V 0124-100, VDE V 0126-1-1, VDE-AR-N 4105, G83/2, C10/11, RD 1699</li> </ul>

# Module Warranty

## Poly Crystalline modules

**25  
year**

Linear power  
output warranty

**10  
year**

Product warranty  
on materials  
and workmanship

## Mono Perc Half Cut / Bifacial modules

**30  
year**

Power output  
warranty

**12  
year**

Product warranty  
on materials  
and workmanship

\*Please refer to the warranty statements of Solar Panels for more details.

# Inverter Warranty

## SOFAR INVERTER

**8  
year**

Standard Warranty

**Upto 15  
year**

Extended Warranty

## KSOLARE INVERTER Solare

**8  
year**

Standard Warranty

\*Please refer to the warranty statements of Inverter for more details.



# Solar Inverter Advantages



## Higher Efficiency, compatible for high power modules

- DC/AC Ratio up to 1.5
- Efficiency up to 98.1%
- Europe efficiency 97.5%
- High string DC input current 12.5A



## Higher reliability, suitable for various environmental conditions

- Integrated IGBT module, less components and higher reliability
- IP 65, better waterproof
- With LED indicator lights, more durable than LCD screen
- High quality components from leading suppliers

# Solar Inverter Advantages



## Easy installation and O&M

- Simple bracket design
- Light weight
- One-click configuration
- Local mode, remote control and upgrade
- Real-time monitoring with Cloud platform
- Combined wiring box design, reduce installation time



## Better safety performance

- DC reverse alarm function
- Leakage current suppression technology
- Overvoltage Class, II(DC), III(AC)
- SPD protection Type II (DC Box Version, DC side)

# SOLAR PROJECT PLANNING

## PROJECT PLANNING

- Applications Support
- System Performance Modeling
- Capacity Sizing and Maintenance
  - Site Planning



## PROJECT IMPLEMENTATION

- EPC Contracting
- Integration & Commissioning
- Plant Controllers & Telemetry
- Regulatory Engagements
- Safety Planning
- Supply Chain Management and Logistics

## PRODUCTS



## SERVICES



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# Solar Plants Installed By SML SOLAR



## BRD Thaloor, Thrissur, Kerala

Capacity: 175 KW  
Module : ADANI Mono Perc Half Cut  
Inverter : SOFAR 60 KW-3Nos



## BRD Vazhakkod, Thrissur, Kerala

Capacity: 40 KW  
Module: ADANI Mono Perc Half Cut  
Inverter: GoodWe 36 kW

# Solar Plants Installed By SML SOLAR



## **BRD Irinjalakkuda, Thrissur, Kerala**

Capacity: 30 KW

Module : ADANI Mono Perc Half Cut

Inverter : EVVO



## **Ayurbethania Hospital, Thrissur, Kerala**

Capacity: 56 KW

Module : ADANI Mono Perc Half Cut

Inverter : EVVO & SOFAR

# Solar Plants Installed By SML SOLAR



## **Penco Marbles, Thrissur, Kerala**

Capacity: 20 KW  
Module : ADANI Mono Perc Half Cut  
Inverter : KSOLARE



## **Casa Allay Home Stay, Ernakulam, Kerala**

Capacity: 10K KW  
Module : RAYZON Mono Perc Half Cut  
Inverter: KSOLARE

# Solar Plants Installed By SML SOLAR



**Castillo Inn Home Stay, Ernakulam, Kerala**

Capacity: 16 KW  
Module : RAYZON Mono Perc Half Cut  
Inverter : KSOALRE



**Mr. Shibu, Thrissur, Kerala**

Capacity: 20 KW  
Module : VIKRAM Mono-Perc Half Cut  
Inverter : SOFAR



# Solar Plants Installed By SML SOLAR



## **Chiryankandath Jewellery, Thrissur, Kerala**

Capacity: 10 KW  
Module : ADANI Mono Perc Half Cut  
Inverter: ENPHASE



## **Mrs. Rekha Rajesh, Ernakulam, Kerala**

Capacity: 10 KW  
Module : Pixon Poly  
Inverter : KSOLARE

# Solar Plants Installed by SML Solar



**Mrs. Lalitha, Ernakulam, Kerala**

Capacity: 10 KW  
Module : VIKRAM Mono Perc Half Cut  
Inverter : SOFAR



**Mr. Jayachandran, Alappuzha, Kerala**

Capacity: 10 KW  
Module : ADANI Mono Perc Half Cut  
Inverter : EVVO



**THANK YOU!**

Year. 2023