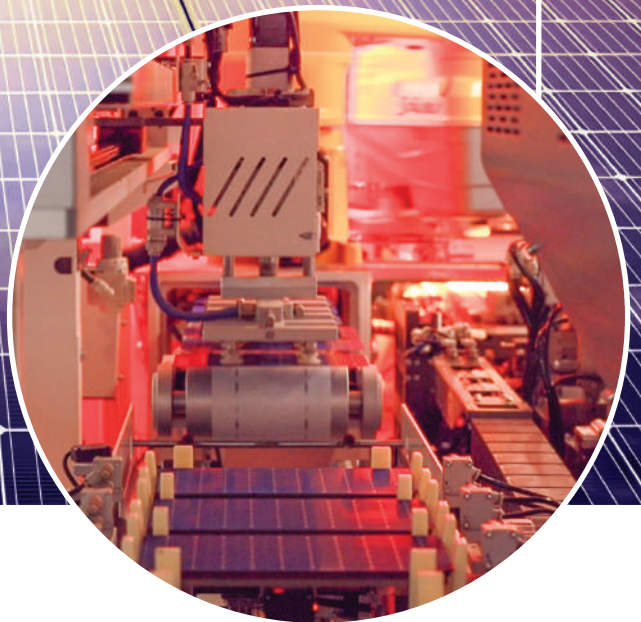


# SOLUTIONS TO BRIGHTER TOMORROW



**SWELECT ENERGY SYSTEMS LIMITED**

[swelectes.com](http://swelectes.com)

  
**swelect**  
Stay powerful when sun shines. And thereafter...

# Step in to the World of SWELECT Energy Systems



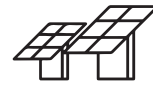
40 YEARS & 1 GW+  
EXPERIENCE IN GLOBAL  
ENERGY MARKET



PUBLIC LISTED  
COMPANY IN INDIAN  
STOCK EXCHANGES



IMS CERTIFIED  
COMPANY



1 GW STATE-OF-THE-ART  
SOLAR PV MODULE  
MANUFACTURING FACILITY



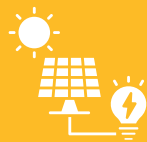
0.5 GW MMS &  
ELECTRICAL BOS  
MANUFACTURING  
FACILITY



EPC SOLUTION PROVIDER  
AND INDEPENDENT  
POWER PRODUCER



SOLAR ENERGY STORAGE  
& SOLAR-WIND HYBRID  
ENERGY STORAGE SYSTEMS



## Manufacturing High-Quality Solar Photovoltaic Modules

Our modules are fully  
certified for Domestic  
and Global markets



## Manufacturing Module Mounting Structures (MMS) and Balance of Systems (BOS)

Ensuring robust support and  
integration for solar systems



## Product Distribution

Catering to home and SME  
rooftop solar systems with a  
focus on accessibility and  
ease of installation



## Large Capacity Rooftop Solar Power Generating Systems

Designed for Commercial and  
Industrial (C&I) segments,  
providing sustainable energy  
solutions



## EPC Contracts for Utility-Scale Solar Power Projects

Delivering turnkey  
solutions to support  
Corporate, C&I, Institutional  
customers transitioning to  
renewable energy



## Power Generation and Sale as an Independent Power Producer (IPP)

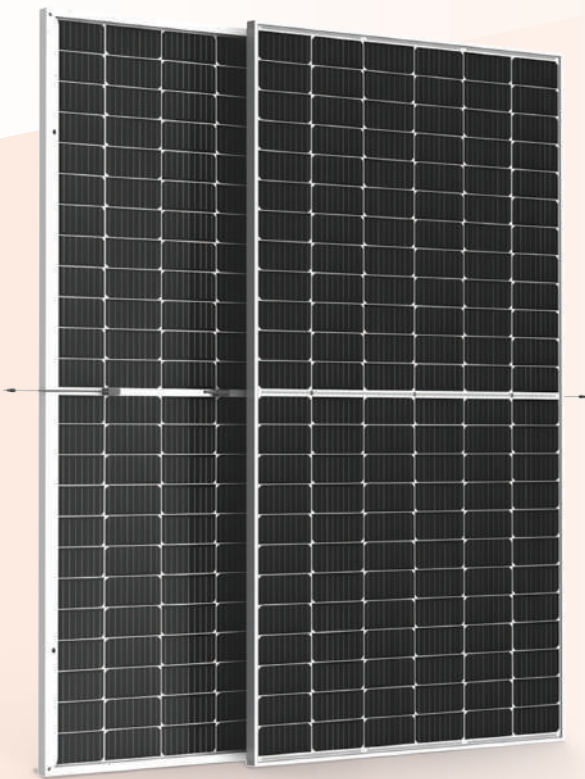
Enhancing energy  
independence and  
sustainability



# Manufacturing - SHPV

## Renewable Manufacturing for a Brighter, Sustainable Future

SWELECT HHV SOLAR PHOTOVOLTAICS PVT LTD (SHPV), a 1 GW Solar PV Module Manufacturing facility, is a 100% step-down subsidiary of SWELECT ENERGY SYSTEMS Ltd. and operates a cutting-edge manufacturing facility in Coimbatore. Inaugurated in March 2023, the facility has successfully completed its first year of operation, building upon 15 years of manufacturing experience, including the Bangalore Unit, HHV Solar. This facility produces both Mono PERC and TOPCON modules from 365 Wp to 630 Wp for both mono facial and bi facial applications.



### About the Facility



**CLIMATE  
CONTROLLED  
RAW MATERIALS  
STORES**



**CLASS 100,000 /  
ISO 8 CLEAN  
ROOM PRODUCTION  
FACILITY OF  
40,000 SQ FT**



**THE FACTORY AREA  
SPANS OVER  
6 ACRES  
WITH BUILT-UP  
AREA OF 1.30 LAC  
SQUARE FEET**



**FULLY AUTOMATED  
PRODUCTION LINE  
SUPPORTED BY  
GANTRY &  
ROBOTS**



**DEDICATED BUSINESS  
EXCELLENCE TEAM**

### Certifications



- BIS / IEC / UL
- BIS Certified (IS 14286: 2010 & IS/IEC 61730: 2004 - 1&2)
- IEC / UL 61215: Design qualification and type approval
- IEC/ UL 61730: Module safety qualification
- IEC TS 62804: 2015 PID Resistance
- IEC 61701: 2020 Salt Mist Corrosion Test
- IEC 62716: Ammonia Corrosion Test
- IEC 60068: Dust and Sand Resistance
- IEC 61853 - 1, 2 PAN File & IAM Testing
- CSA C22.2 No. 61730 -1, 2: 2019 Module Safety Qualification

### SHPV at a Glance

- 1 GW Rated capacity
- 627 MW Manufacturing capability (as per ALMM enlistment)
- 33% women workforce, soon to be 50%
- 80% powered by solar energy, aiming for 100%
- ESG partner for stakeholders
- Product certifications for Global and Indian markets (UL / IEC / BIS)
- IMS & EnMS certified entity
- Operates on SAP and MES

### Quality Assurance

- Cells from Tier-1 suppliers
- Superior specification of all raw materials
- 40+ in house quality checks
- Stringent Quality Assurance Plan to ensure highest energy yield and lowest warranty claims

# MMS & Electrical BOS – State-of-art 0.5 GW Manufacturing facility at Salem, Tamil Nadu

SWELECT offers a complete range of Electrical and Mechanical Balance of Systems (BOS) from its state-of-the art manufacturing facility in Salem, including Module Mounting Structures (MMS), AJBs, ACDBs, and DCDBs. The plant's roll forming machines have an annual production capacity of 0.5 GW of MMS and a lifetime of over 20 years. This facility also provides Servo Stabilisers, a reliable solution for the common issue of voltage variations and electricity fluctuations in India and worldwide.



C & Hat Purlin Roll forming Machines



## Module Mounting Structures

Complete and customised range of C Purlins, Hat Purlins and other sheet metal structures required for roof top, ground mount, as well as specialised solar power projects.



## SPGS (Solar Power Generation System) Kits

Packaged solutions consisting of solar PV modules, Solar Inverters, Electrical and Mechanical BOS along with Cables, Electrical Protection systems, Data Monitoring Systems.



## Electrical BOS

All range of Array Junction Boxes, String Combiner Boxes, AC & DC Decoupling circuits for various solar applications



## Innovation Hub

Development and deployment of various tools, products and solutions that address the new and emerging market requirements.



## Servo Stabilisers

An effective and reliable solution for voltage variations and electricity fluctuations in India & across the globe.

## Empowering Channel Partners with Innovative Products

SWELECT offers a diverse range of high-quality products tailored to meet the needs of the channel partners, Dealers and Distributors across the country. The above extensive product portfolio is designed to provide customers with reliable solutions, driving mutual growth and success.

**Benefits of Partnering with SWELECT:** Partnering with SWELECT comes with a host of advantages designed to enhance your business operations and profitability.



### COMPREHENSIVE SUPPORT

Comprehensive support for partner success.



### TRAINING & DEVELOPMENT

Training sessions and workshops keep Partners updated on trends.



### BEST VALUE

Ensure best value to its partners and end-users.



### NATIONWIDE NETWORK

SWELECT guarantees timely deliveries and product availability.

# EPC

Power Your Projects:  
Your Trusted EPC Partner

## Overview of SWELECT's EPC Projects

SWELECT offers turnkey EPC solutions, managing every aspect of solar power projects from design to commissioning. SWELECT's experienced team ensures seamless execution, timely completion, and superior quality, providing reliable and sustainable solar energy solutions.

## Advantages of EPC Projects

The EPC (Engineering, Procurement, and Construction) modality offers numerous benefits for renewable energy installations, especially for investors with limited experience. Key advantages include:

**Time and Resource Efficiency:**

Customers invest less time and resources,



**Cost Reduction:** A turnkey solution to reduces costs and allows for fixed budget estimation.



**Timely Completion:** Ensuring deadlines with a single responsible company, taking full ownership on the timely execution and highest quality standards .



**Risk Control:** All the project related risks are better managed and controlled with team of Professionals with relevant domain expertise.



**O & M Integration:** SWELECT also offer O&M services ensuring highest uptime and highest stake holder value via assured power generation guarantee.



**Specialization and Alliances:** High specialization and strategic partnerships mitigate risks.

## Applications of EPC Contracts

**Utility-Scale Solar Farms**

Large-scale solar power projects for utilities.

**Commercial Installations**

Solar solutions for businesses and industries.

**Residential Projects**

Tailored solar systems for homes.

**Government Projects**

Solar initiatives for public infrastructure and facilities.

**Off-Grid Solutions**

Solar energy for remote and rural areas.

## EPC Value Chain



**Engineering:** Basic and detailed design, including electrical and mechanical systems.



**Procurement:** Sourcing and supply of all necessary materials and equipment.



**Construction:** Civil works, mechanical assembly, and electrical installations.



**Commissioning:** Testing and start-up of the solar power system.



**Permits:** Handling of necessary permits and regulatory compliance.



**O&M:** Operation and maintenance services during the warranty period and beyond.



# IPP

## SWELECT's Open Access Solar Solutions

SWELECT's open access solar solutions empower large-scale Commercial & Industrial (C&I) consumers to procure renewable energy directly from the Solar PV plants owned by SWELECT by entering into wheeling agreement with the State DISCOM (Distribution Company).

- 01 Cost Savings:** Lower tariffs compared to traditional grid electricity.
- 02 Scalability:** Access to renewable energy without property footprint limitations.
- 03 Environmental Benefits:** Reduces carbon footprint and supports sustainability goals.
- 04 Meet the ESG compliance of corporate governance**

## Group Captive Solar Plan

A group captive solar plant is jointly owned and operated by multiple companies, allowing them to benefit from solar energy without significant upfront investment.

## Third Party Power Purchase

TPPAs are becoming an increasingly popular option for businesses and organizations of all sizes. This third-party power purchase (TPPA) is ideal for HT consumers, offering risk-free discounted tariffs without any project investment. Clients only pay for consumed units, along with state DISCOM open access and stipulated charges.

| Attributes                    | Group Captive Plan    | 3rd Party Power Purchase |
|-------------------------------|-----------------------|--------------------------|
| Plan                          | LTOA                  | LOA/STOA*                |
| Buyer Investment              | 26% on Project Equity | Zero Investment          |
| Return on Equity              | High                  | n/a                      |
| PPA period                    | 15-25 Years           | 3-5 Years                |
| Solar PV Plant maintenance    | Swelect               | Swelect                  |
| Solar Savings                 | High                  | Moderate                 |
| Impact on Open Access charges | Minimum               | Considerable impact      |
| Solar Tariff                  | Fixed                 | Variable                 |

\*LTOA-Long Term Open Access,  
STOA- Short Term Open Access

## Distinguished National & Global Projects



Trichy District, Tamil Nadu - Total SPV Capacity: 68 MW



Dindigul District, Tamil Nadu - Total SPV Capacity: 60 MW



Karur District, Tamil Nadu - Total SPV Capacity: 58 MW



Erode District, Tamil Nadu - Total SPV Capacity: 16 MW



# Installation – Rooftops

## Selective National & Global Projects



Tirupur, Tamil Nadu - SPV Capacity: 2 MW



Chennai, Tamil Nadu - SPV Capacity: 1.1 MW



Dindigul, Tamil Nadu - SPV Capacity: 1 MW



Super Market, Canada - SPV Capacity: 800 kWp



Mysore, Karnataka - SPV Capacity: 262 kWp



Coimbatore, Tamil Nadu - SPV Capacity: 200 kWp



New Delhi - SPV Capacity: 165 kWp



India's First Floating Solar Plant, Kerala - SPV Capacity: 100 kWp

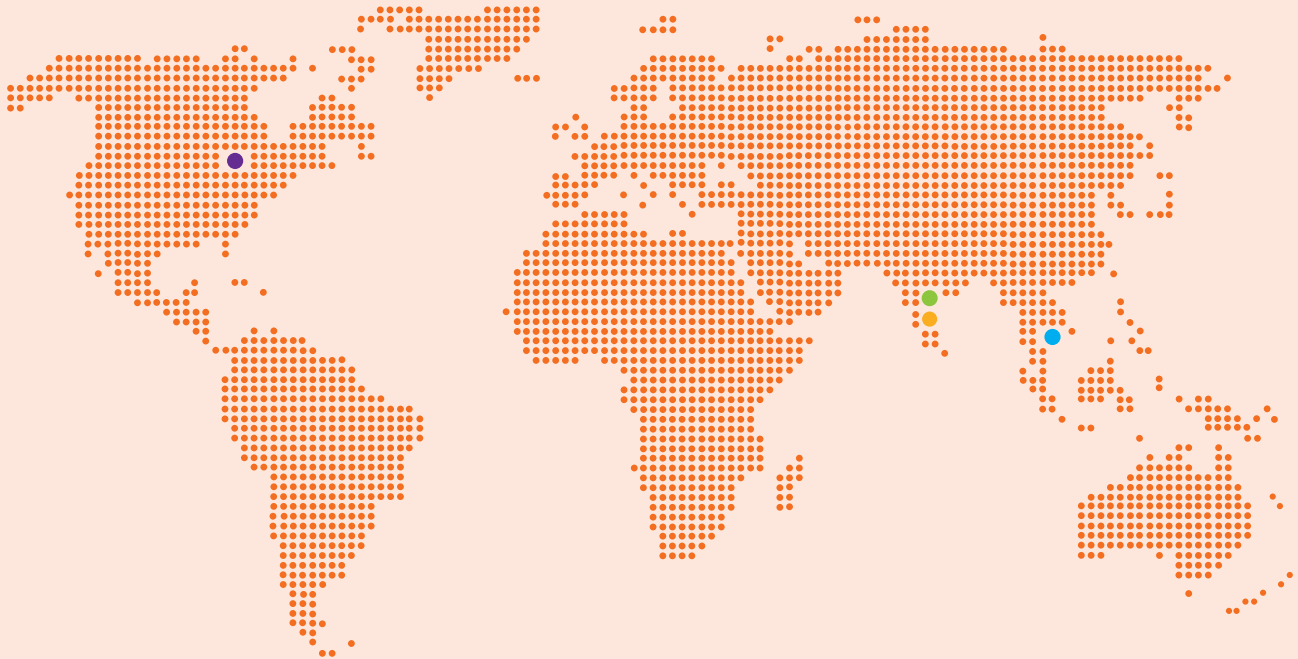


New Delhi - SPV Capacity: 80 kWp



Solar Water Pump - Total Capacity: 24,302.71 kWp | Total Sites: 6,779

## SWELECT's Presence Across the Globe



### SOLAR & POWER BUSINESS

**03** IPPs – Special Purpose Vehicle

**05** IPPs – Group Captive Plants

**32** Total No. of Solar Power Plants

### SWELECT Inc., USA

### SWELECT Energy Systems Pte. Ltd., Singapore

### SWELECT HHV SOLAR PHOTOVOLTAICS PVT. LTD.

For a comprehensive  
Solar Solution:

#### **SWELECT ENERGY SYSTEMS LIMITED**

##### **SWELECT HOUSE**

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Chennai - 600 004. Tamil nadu, India.  
info@swelectes.com | +91 44 24993266

MMS & BOS Manufacturing

##### **SWELECT Energy Systems Limited**

S.No.58/3 Nachiyar, Salem Main Road,  
Veerappan Palayam PO, Idappadi - 637 105, Salem

Solar PV Module Manufacturing

#### **SWELECT HHV SOLAR PHOTOVOLTAICS PRIVATE LIMITED**

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Kuppeplayam Village, Coimbatore, Coimbatore  
North Taluk, Coimbatore District Tamil Nadu- 641 107.

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swelectes.com