

SOLUTIONS TO BRIGHTER TOMORROW



SWELECT Energy Systems Limited



Step into 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 (ISO 9001,4501,1400,EnMS)



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



SOLAR ENERGY STORAGE & SOLAR-WIND HYBRID ENERGY STORAGE SYSTEMS



1 GW+ MMS & ELECTRICAL BOS MANUFACTURING FACILITY



EPC SOLUTION PROVIDER AND INDEPENDENT POWER PRODUCER



Manufacturing High-Quality Solar Photovoltaic Modules

Our modules are fully certified for Domestic and Global markets



Product Distribution

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



EPC Contracts for Utility-Scale Solar Power Projects

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



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

Ensuring robust support and integration for solar systems



Large Capacity Rooftop Solar Power Generating Systems

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



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

Enhancing energy independence & 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 LIMITED and operates a cutting-edge manufacturing facility in Coimbatore. Inaugurated in March 2023, SWELECT HHV Solar builds on over 15 years of manufacturing expertise, including extensive experience from its Bangalore unit. This facility produces TOPCon G12R and M10R modules ranging from 365 Wp to 655 Wp for both monofacial and bifacial 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**

SHPV at a Glance

- 1 GW Rated capacity
- 807 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

Certifications



- BIS / IEC / UL
- BIS Certified (IS 14286: 2023 & IS/IEC 61730: 2016 - 1&2)
- IEC 61215: Design qualification and type approval
- IEC 61730: Module safety qualification
- IEC TS 62804: 2015 PID Resistance
- IEC 61701: 2020 Salt Mist Corrosion Test
- IEC 62716: Ammonia Corrosion Test
- IEC 61853 - 1, 2 PAN File & IAM Testing
- CSA C22.2 No. 61730 -1, 2: 2019 Module Safety Qualification
- 4-star rating for Energy Efficiency from the Bureau of Energy Efficiency

Quality Assurance

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

MMS & Electrical BOS – State-of-art 1 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), Array Junction Boxes (AJBs), AC distribution boxes (ACDBs), and DC distribution boxes (DCDBs). The plant's roll forming machines have an annual production capacity of 1 GW+ of MMS and a lifetime of over 25 years. This facility also provides power products, including servo stabilizers, isolation transformers, electrical and general-purpose switchboards, and distribution boards.



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.



Power Products

Servo Stabilisers, Isolation Transformers, Electrical & General-purpose Switchboards & Distribution boards

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 and O&M

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.



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.

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.

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, Tamilnadu - Total SPV Capacity: 136 MW



Karur District, Tamil Nadu - Total SPV Capacity: 70 MW



Dindigul District, Tamil Nadu - Total SPV Capacity: 87 MW



Erode District, Tamilnadu - 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



Coimbatore, Tamil Nadu - SPV Capacity: 1 MW



Super Market, Canada - SPV Capacity: 800 kWp



Coimbatore, Tamil Nadu - SPV Capacity: 770 kWp



Coimbatore, Tamil Nadu - Rooftop Car parking, SPV Capacity: 626 kWp



New Delhi - SPV Capacity: 165 kWp



India's First Floating Solar Plant, Kerala - SPV Capacity: 100 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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MMS & BOS Manufacturing

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Solar PV Module Manufacturing

SWELECT HHV SOLAR PHOTOVOLTAICS PRIVATE LIMITED

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