

Other Business Areas

Solar Power Generation Biz.

A solar power plant operates by installing photovoltaic (PV) panels that capture sunlight. Using the photovoltaic effect, semiconductor devices convert solar energy into electricity.

Repowering Biz.

- The process of upgrading or replacing existing solar power generation facilities to improve efficiency and extend operational lifespan.
- Applied when aging photovoltaic systems become technologically outdated or when component performance has significantly degraded.

O&M (Operation & Maintenance) Biz.

Solar power plant maintenance is essential to maximizing the efficiency, stability, and lifespan of photovoltaic systems. As solar energy facilities continue to expand worldwide, professional maintenance ensures optimal performance and sustainable operation.

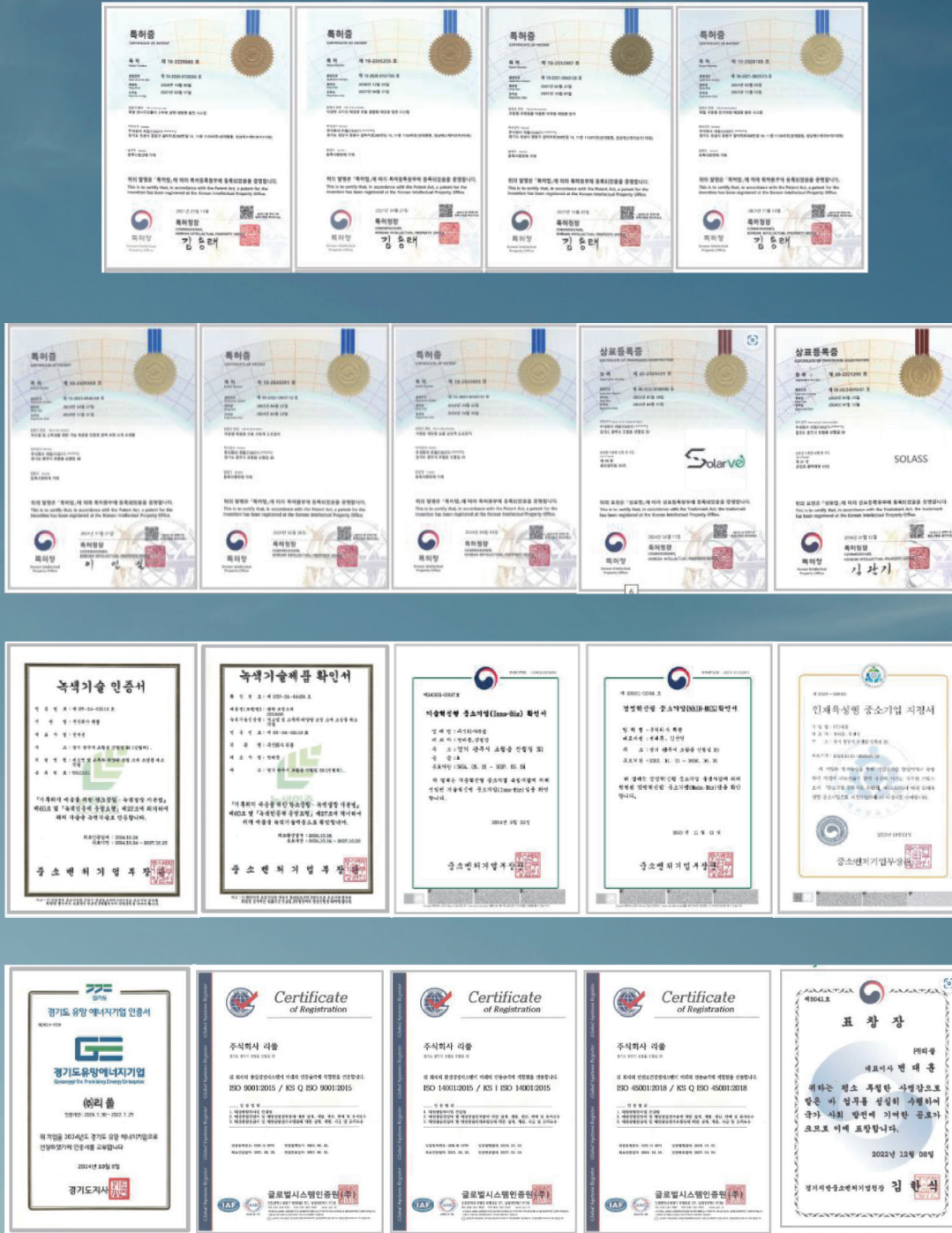
Solar Junction Box Biz.

- We design and manufacture key power equipment that safely collects, distributes, and protects the electricity generated by photovoltaic modules.
- By providing customized combiner boxes tailored to plant scale and installation environments, we reduce power loss while enhancing system stability and operational efficiency.

EV(Electric Vehicle) Charging Biz.

We build and operate EV (Electric Vehicle) charging systems powered by solar energy.

Patents & Certifications



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Remodeling Solar



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Remodeling Energy

Coating Business

Optical coating materials are applied to the surface of photovoltaic modules (or related structures) where contamination resistance and high light transmittance are required under outdoor environments. By enhancing anti-contamination and anti-reflection performance, these coatings contribute to improved efficiency and extended service life.

Importance and Benefits of Coating



Anti-Contamination

Prevents contaminants from adhering at an early stage, maintaining a clean and durable surface.
(Self-cleaning performance of up to 95%)



Enhanced Efficiency

AR (Anti-Reflective) coating increases light absorption and transmission, improving overall panel performance.



Cost Reduction

Minimizes cleaning and maintenance requirements, leading to lower operational costs.



Improved Light Transmittance

Reduces light reflection to enhance transmittance and improves power generation efficiency by minimizing glare-related light loss.



Extended Service Life

Reduces surface deterioration and contamination, contributing to a longer lifespan of photovoltaic panels.

Applications

Applied across various industries requiring contamination resistance and high light transmittance.



Photovoltaic Modules



Architectural Glass & Panels



Automotive Windows & Sensors



CCTV Cameras



ARS (Anti Reflective & Soiling) Integrated Optical Coating



- A self-cleaning coating technology that reduces solar light reflection, increases power generation efficiency, and prevents contamination from adhering or enables easy removal.
- Low-reflectance / high-transmittance performance
(Light reflectance $\leq 3\%$, Light transmittance $\geq 92\%$)
- Anti-soiling and hydrophobic properties (Low surface energy $\leq 15 \text{ mN/m}$, Water contact angle $\geq 100^\circ$)

AR (Anti-Reflective) Coating

- Refractive Index : $1.0 < n_2 < 1.5$
- Low Reflective : $3\% \geq$ @single
- High Transmittance : $92\% \leq$
- Low Haze : $1.0 \geq$

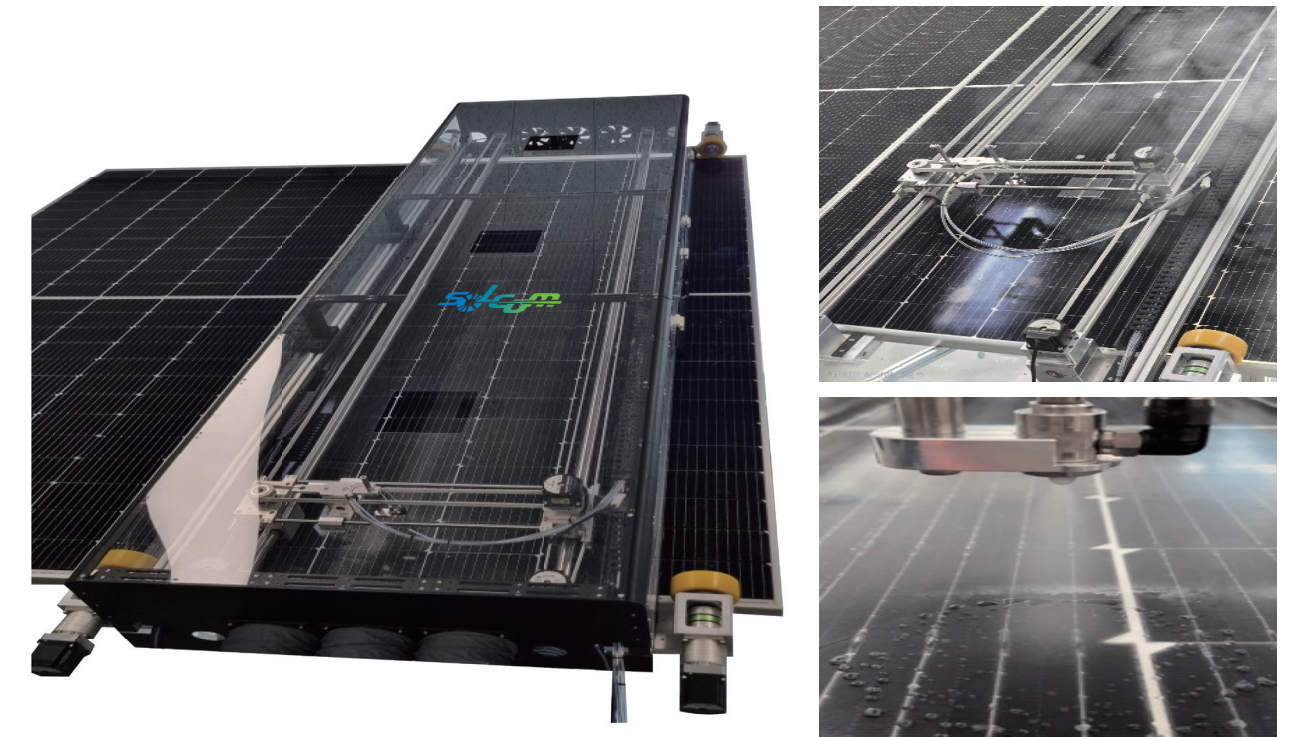
AS (Anti-Soiling) Coating

- Hydrophobic : $100^\circ \leq$
- Surface free energy : $15 \text{ mN/m} \geq$
- Self-cleaning efficiency : $95\% \leq$
- Anti ESD : $10^5 \sim 10^{12} \Omega/\text{sq}$

Type	Model Name	Application
Siloxane	SOLASS FR-Series	Anti-Reflective
	SOLASS FS-Series	Anti-Soiling
	SOLASS FE-Series	Anti-ESD
	SOLASS FC-Series	Anti-Complex



Outdoor Mobile Coater



- On-site restoration coating without module disassembly
- Modular, lightweight structure for easy transportation and installation
- Adjustable configuration to accommodate various large-scale modules
- Uniform nano thin-film coating over large surface areas
- Ultra-precision micro-volume coating enabled by vortex nozzle technology
- Sealed enclosure design to block external environmental factors
- Expandable options available, including heat treatment and measurement systems

SOLCOM OC-Series Coater

- Type : Spray Coater
- Size : $1,000 \times 2,700 \times 300 \text{ mm}$
- Weight : 50 kg
- Nozzle : Cyclone Atomizing
- Moving Speed : Max. 500mm/sec
- Coating Area : $400 \times 2,300 \text{ mm}$
- Power : 220VAC, 60Hz, $\rightarrow 24\text{VDC}$

Type	Model Name	Application
Spray	SOLCOM OC-Series	Outdoor Coater
	SOLCOM LC-Series	Lab. Coater