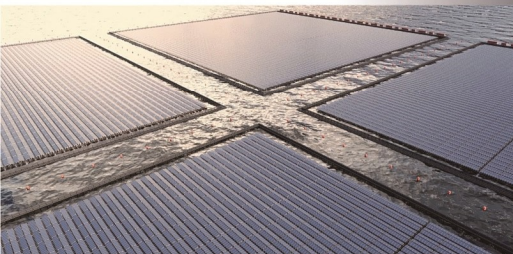


ABOUT SUNRISE E&T

Sunrise E&T is a world leading offshore fish cage manufacturer, with installations spanning the five major oceans. Since 1999, its product structure and unique anchoring design have withstood severe weather and sea conditions in various marine areas, maintaining a flawless record of zero damage.

Drawing from their extensive experience in developing offshore structures, Sunrise E&T has applied the robustness of HDPE to the solar energy industry, resulting in the development of a floating platform that is wind and wave resistant, highly flexible, and environmentally friendly. Launched to the market in 2010, it has obtained patents in 55 countries worldwide, with a total installed capacity of 400 MW.

- 2015 The First offshore prototype was tested in Japan, located 300 meters offshore, using thin-film solar panel.
- 2022 Completed commercially scalable version design, with a single block of 25 MW and four blocks combined to reach 100 MW.
- 2023 Complete laboratory testing for wind, waves and currents.
- 2024 Expected to complete installation off the coast of Taiwan for field testing.
- 2025 Expected to complete testing and evaluation.
- 2026 Commercialised.



SUNRISE E&T CORPORATION

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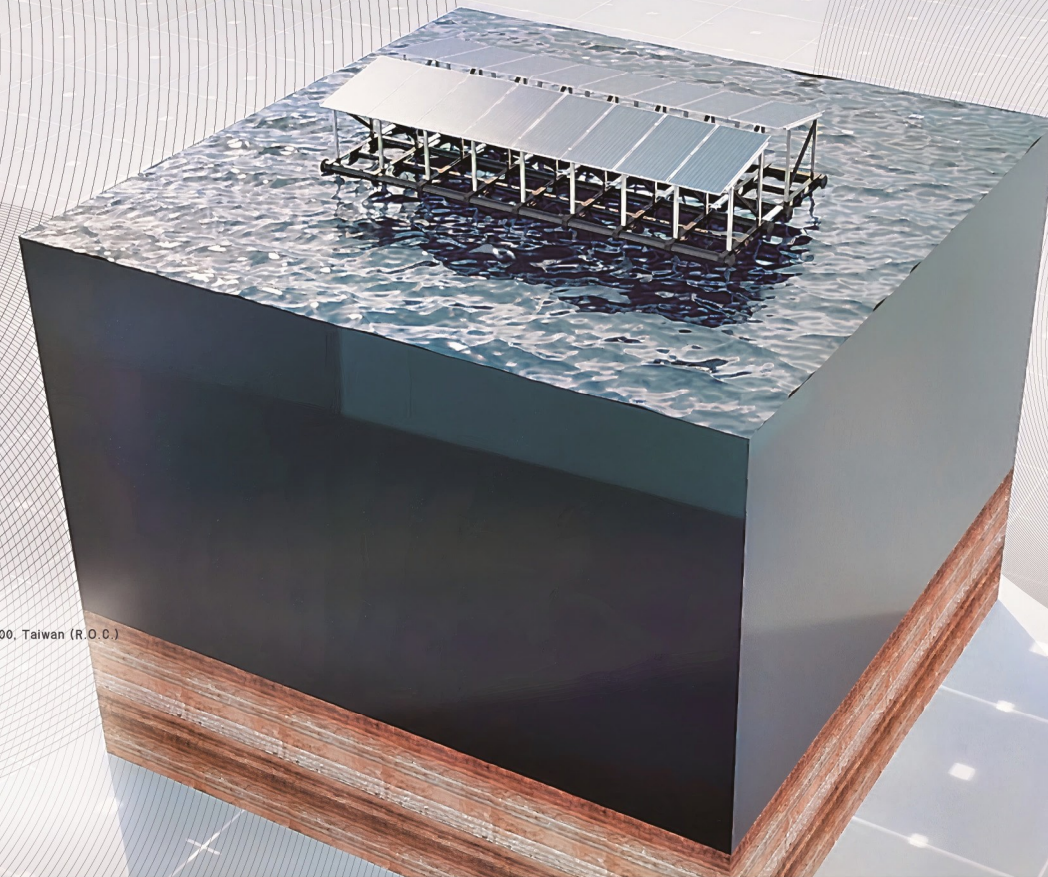
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<https://www.timelinevisual.com/>



離岸太陽能浮力系統

OFFSHORE FLOATING SOLAR SYSTEM



/// Boom Floater ///

Electricity System

The boom-floater is equipped with waterproof and seismic-resistant inverters and transformers specifically designed for offshore use, marking the industry's first placement of transformers on an offshore floating solar system.

Wind Deflector

External wind boards are installed to effectively reduce wind speed and minimize the impact of wind on the solar panels.

Safety Design

The design of handrails and bottom pipes on the boom-floater enhances the safety of personnel during offshore operations.

Wave Reduce Fundament

The pipe structure at the bottom of the boom-floater effectively reduces wave height and provides a passage for maintenance personnel.

Eco-Friendly

The base of the boom-floater is equipped with oyster farming cages, which not only contribute to economic benefits but also play a role in carbon sequestration and water purification.

/// Floating Platform Features ///

Anti-corrosion Support

Utilizing the latest developed 446 stainless steel for offshore by Formosa Plastics Group- Fuxing Special Steel, the support structure has undergone 270 cycles of JASO M609 salt spray testing.

Anti-UV Base

HDPE is renowned for its high weather resistance, excellent elasticity, impact resistance, alkali resistance, and UV resistance. The material can remain non-brittle under 50+ years of sunlight exposure.

Wave Dissipation

The platform design incorporates curved pipe structures and spaced wave-dissipating bases, effectively reducing the impact of residual waves from boom floater.

Ecologically Friendly

Made from drinking water grade HDPE, the platform can be used long-term without affecting the surrounding ecosystem. The low-shading, high-permeability design of the platform ensures the preservation of the ecological environment.



/// Plant Layout ///

The offshore solar and offshore wind turbines are integrated to form a complementary offshore green power plant. Regardless of weather conditions, the plant ensures stable power output.

Additionally, significant cable installation expenses are saved through the shared submarine cable infrastructure.

In terms of site planning, a solar floating platform is positioned between the two wind turbines, with its size adjusted to complement the power generation of the turbines.

Between the two platform areas, offshore fish cages are installed, along with artificial reefs below the site, to enhance marine system diversity and stability.

In the Intertropical Convergence Zone where wind is scarce near the equator, the design incorporates shared anchoring to combine the four blocks into a large-scale 100 MW plant.

