



SCOTRA FLOATING PV SYSTEM



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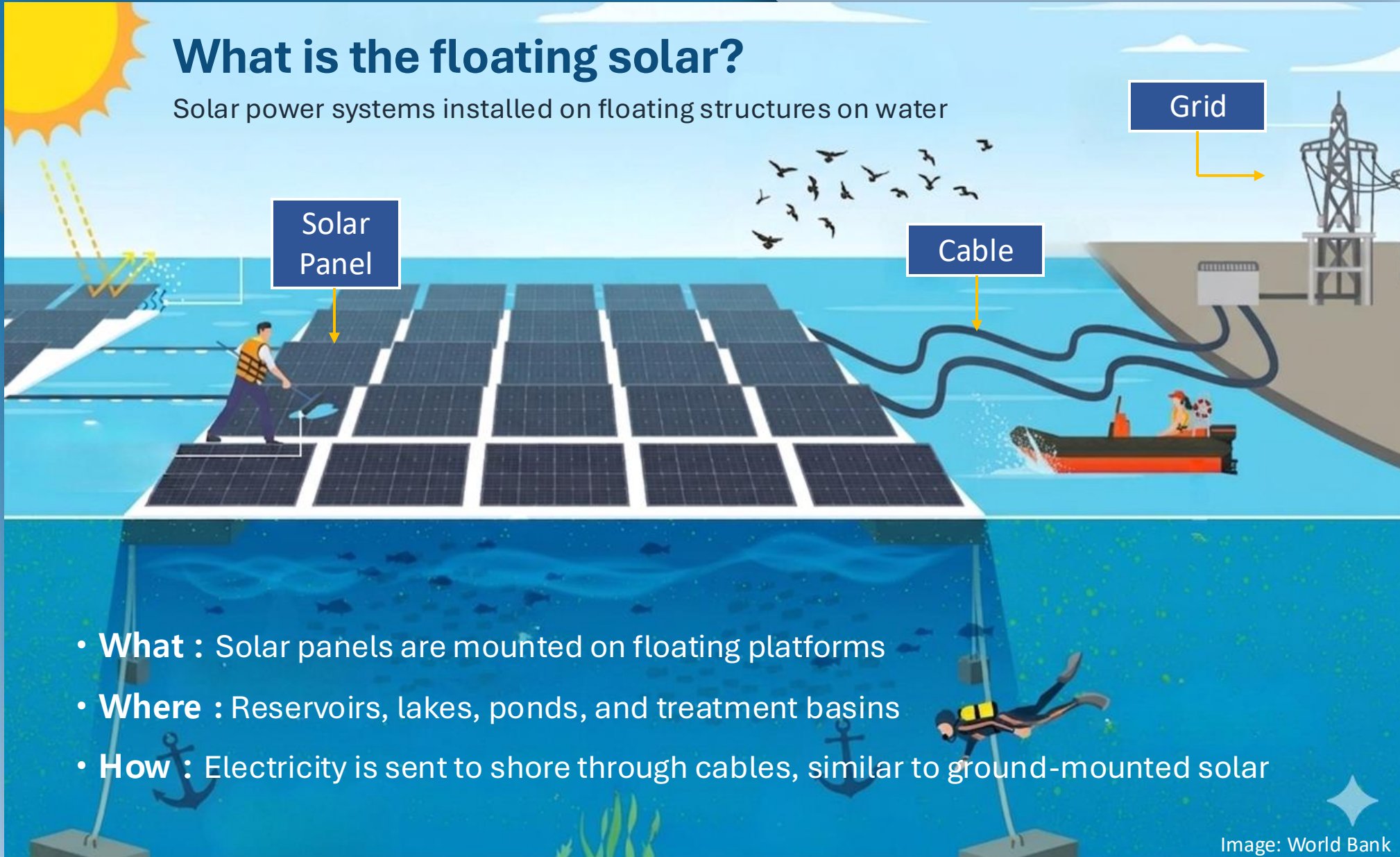
A wide-angle photograph of a floating solar farm. The solar panels are arranged in neat, parallel rows on a body of water. In the background, there are green, forested mountains under a clear blue sky with a few wispy clouds. The overall scene is bright and clean, emphasizing the renewable energy theme.

WHY FLOATING SOLAR

1. WHY FLOATING SOLAR

What is the floating solar?

Solar power systems installed on floating structures on water



- **What** : Solar panels are mounted on floating platforms
- **Where** : Reservoirs, lakes, ponds, and treatment basins
- **How** : Electricity is sent to shore through cables, similar to ground-mounted solar

Image: World Bank

1. WHY FLOATING SOLAR

Why Floating Solar Is Attractive

Eight practical benefits for floating solar projects

1

0% Land Use

No need extra land
(except for electric room)



2

Power Generation Efficiency

+5–10%

Water cooling effect reduces
panel temperature



3

Reduction in Evaporation Up to 30%

Surface Shading Effect



4

Algae Growth Reduction Up to 60%

Block direct sunlight



5

Utilization of Existing Infrastructures (100%)

integrated with dams and
water treatment facilities



6

Construction Period Reduced by 10–20%

Less civil engineering work
required



7

Minimized Land Damage

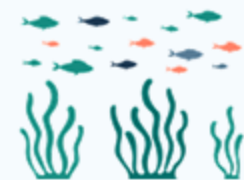
Protect forests and farmlands



8

Eco-friendly Ecosystem

Coexisting with nature





ABOUT SCOTRA

2. ABOUT SCOTRA

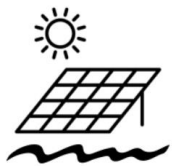
“Everything on the water”

- Established** 2007, March
- C.E.O** Lee, Jong Mok
- Employee** 100
- HQ** Gunsan, South Korea
- Branch** Pyeongtaek, South Korea (Business Office)
- R&D** Seoul, South Korea (R&D & Overseas Sales)

Area	39,475 m ²	Remark
Product	Frame+ Floater	2 factory buildings
Capability	500MW/year	



SCOTRA HQ OFFICE & SHOP



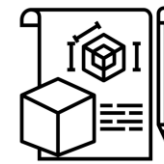
Floating Solar related Patent

30ea



Floating leisure related patent

11ea



Floating Solar related design patent

10ea



Mooring references

2,000ea

2. ABOUT SCOTRA

8th Generation Floater

material PE | dimension 1,000 X 700 X 600(mm)
weight 24.25kg | buoyancy 330kg

- ◆ 6 independent compartments inside, with constant buoyancy,
- ◆ stability and strength in case of breakage and leakage.
- ◆ great performance to reduce wave stress

Structure for FPV

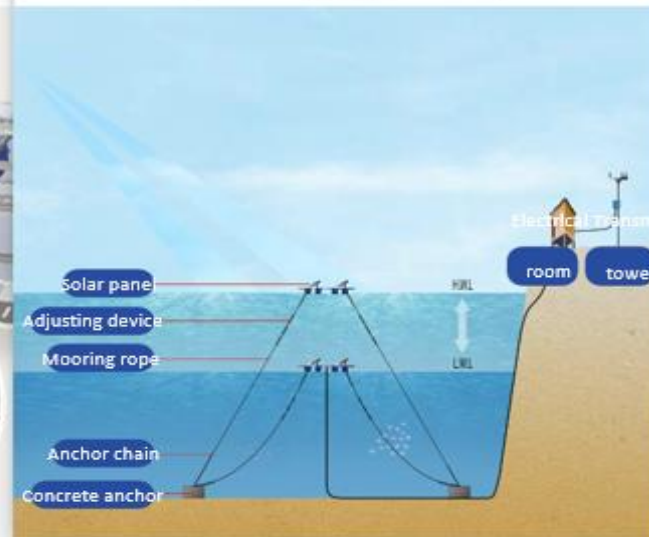
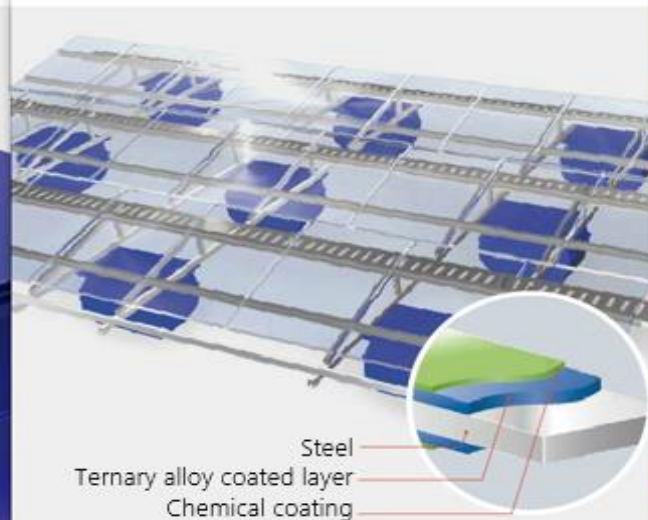
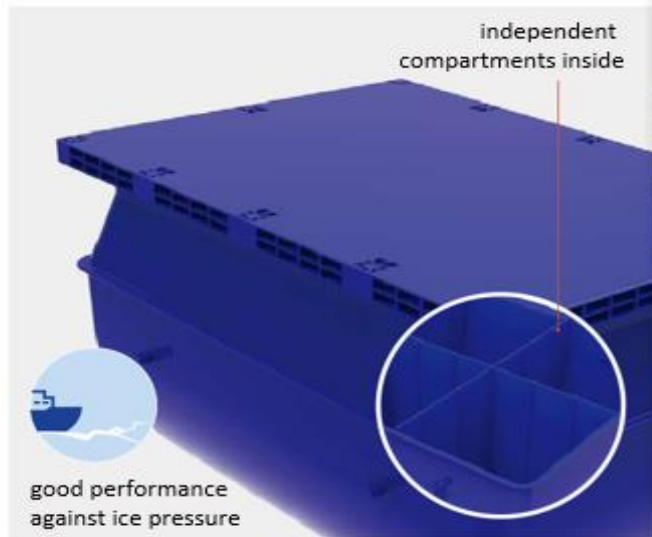
highly corrosion-resistant ternary alloy coated steel

- ◆ 5 times higher corrosion-resistance comparing to galvanized steel
- ◆ good performance of corrosion-resistance passed hygienic test for drinking water

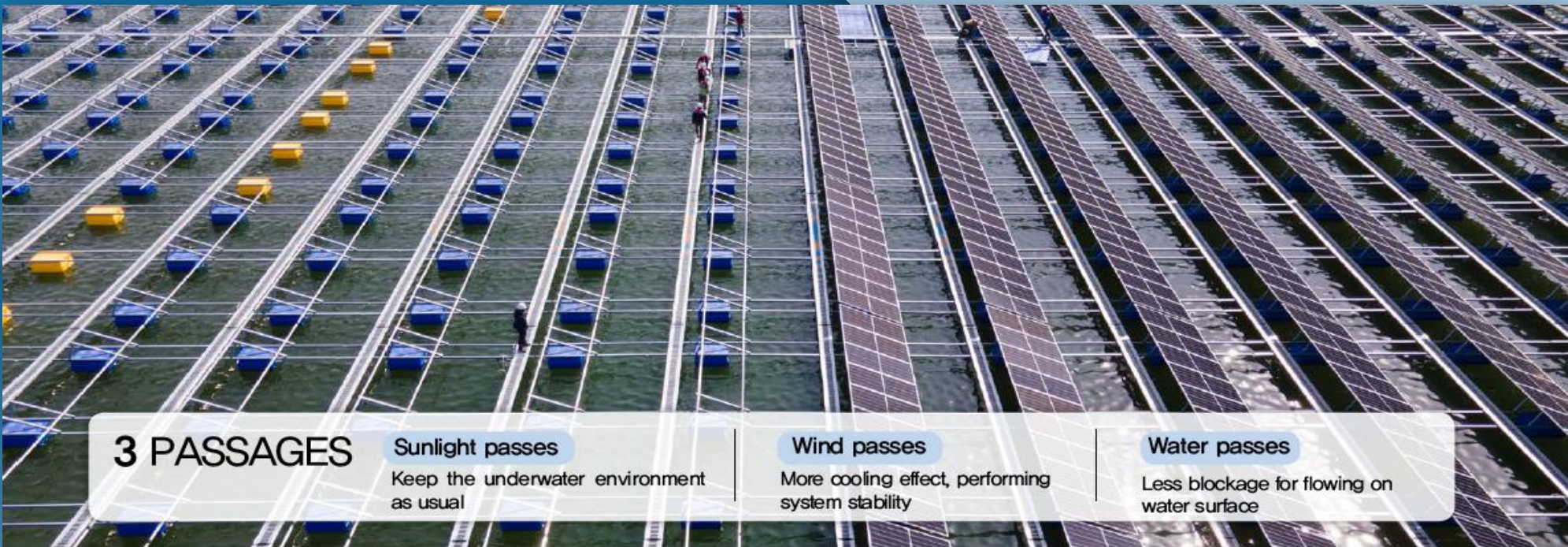
Scotra Mooring

Adjusting Device

- ◆ Patent No. 10-135999



2. ABOUT SCOTRA



3 PASSAGES

Sunlight passes

Keep the underwater environment as usual

Wind passes

More cooling effect, performing system stability

Water passes

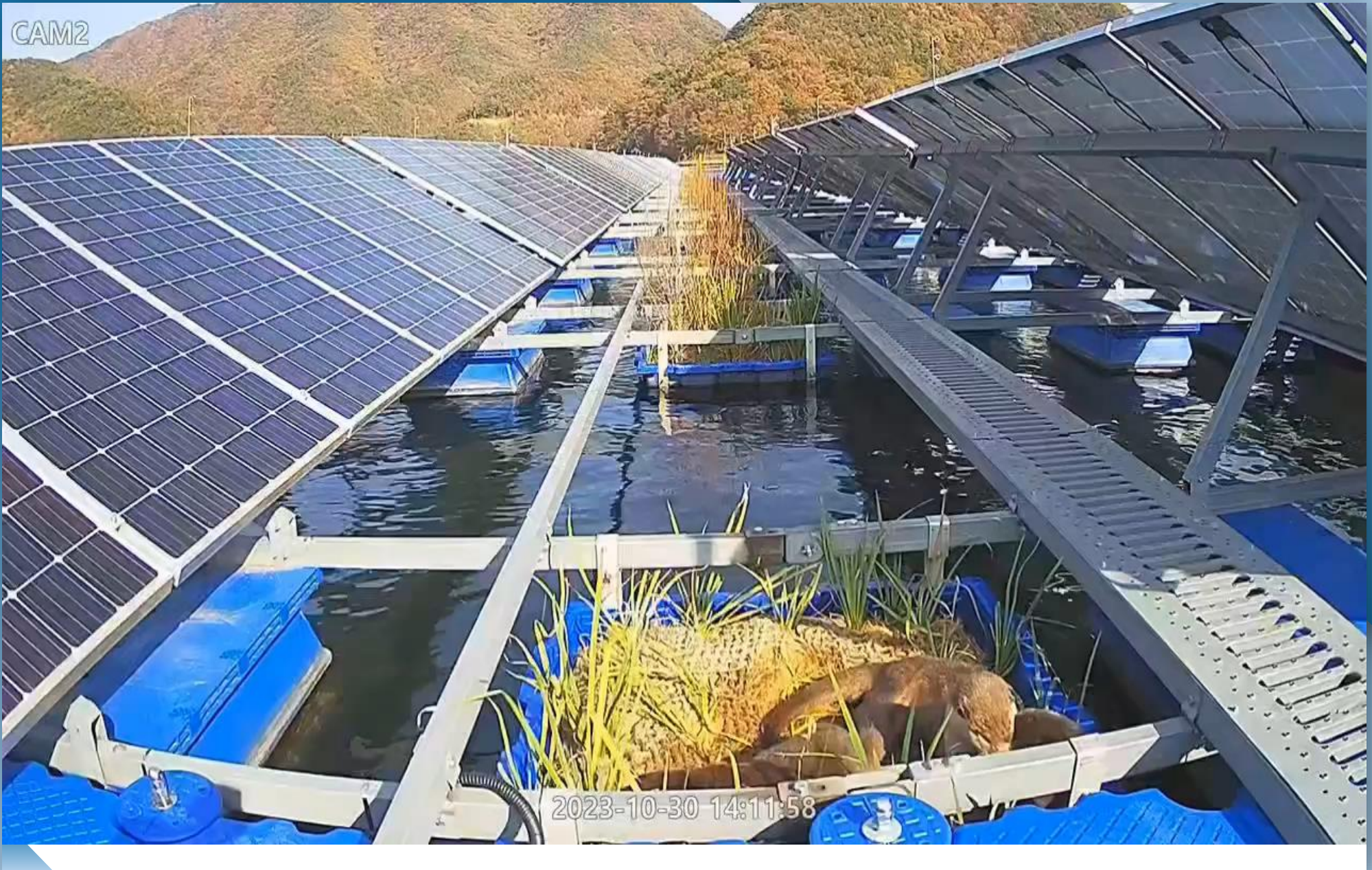
Less blockage for flowing on water surface

Floater Developing History

Since developing general floater for aquatic leisure facilities in 2004, developed full size floater for FPV in 2011, Scotra keep doing the best to enhance the performance of FPV floaters.



2. ABOUT SCOTRA



2. ABOUT SCOTRA

Stability under extreme conditions

Typhoon Lingling (2019, No. 13) recorded a maximum sustained wind speed of 35.6 m/s and a peak gust of 53.4 m/s.

Boyerong Dam 2MW



Gunsan Retarding Basin
18.7MW





REFERENCE

3. REFERENCE

“ Total Installed Volume : 321MW
Having global references at various extreme locations ”

* 1MW : for usage of approx. 430 household



Flower shaped Hapcheon dam 41MW



Yiwon Lake 30MW

Dam : 8 sites 109.3 MW



Chungju dam 3MW



Boryung Dam 3MW



Hapcheon 41MW



Hapcheon Testbed 100kW

Reservoir : 25 sites 180.6MW



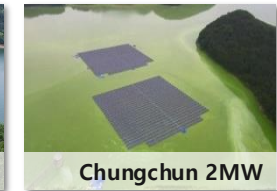
Gusan basin 18.7MW



Josung 2.7MW



Hai 2.5MW



Chungchun 2MW

Overseas : 18 sites 31.1MW



Japan 0.4MW



Japan 0.5MW



Philippine 0.05MW



Taiwan 1.2MW

2021

41MW flower-shaped Floating PV System

Construction completed in 180 days with groundbreaking assembly system

Hapcheon dam 41,1MW

Capacity 450W x 92,160 panels

Location Hapcheon dam,
Hapcheon gun, Gyeongnam

Area 467,821m²

Completed 2021. 11



World's first commercialized Floating PV System in Dam



Hapcheon Dam 500kW Capacity 300W x 1,656 panels

Area 8,331m²

Completed 2012. 06

An aerial photograph of a large reservoir surrounded by lush green mountains. Several large, rectangular arrays of floating solar panels are deployed on the water's surface. The panels are arranged in a grid pattern, with some arrays being larger and more densely packed than others. The water is a deep green color, and the surrounding mountains are covered in dense forest. In the background, a power transmission tower is visible on a mountain peak.

2023

Apricot blossoms blooming in Yanggu

Scotra mooring technique stable for deep water depth and significant water level fluctuations

Soyang River Dam

Capacity 8.8MW 480W x18,360panels

Location SoyangRiverDam,
Yanggu-gun, Gangwon-do

Area 94,330141m²

Completed 2023.11.

Goheung Lake 28,2MW

Capacity 415W, 475W x 64,911 panels

Location Goheung Lake, Goheung-gun,
Jeollanam-do

Area 251,851m²

Completed 2023. 06

2023

The moon rising on the water Floating PV System on Goheung Lake

Scotra leads Korea Floating PV industry

2024

A Robust FPV Built to Withstand Strong Winds

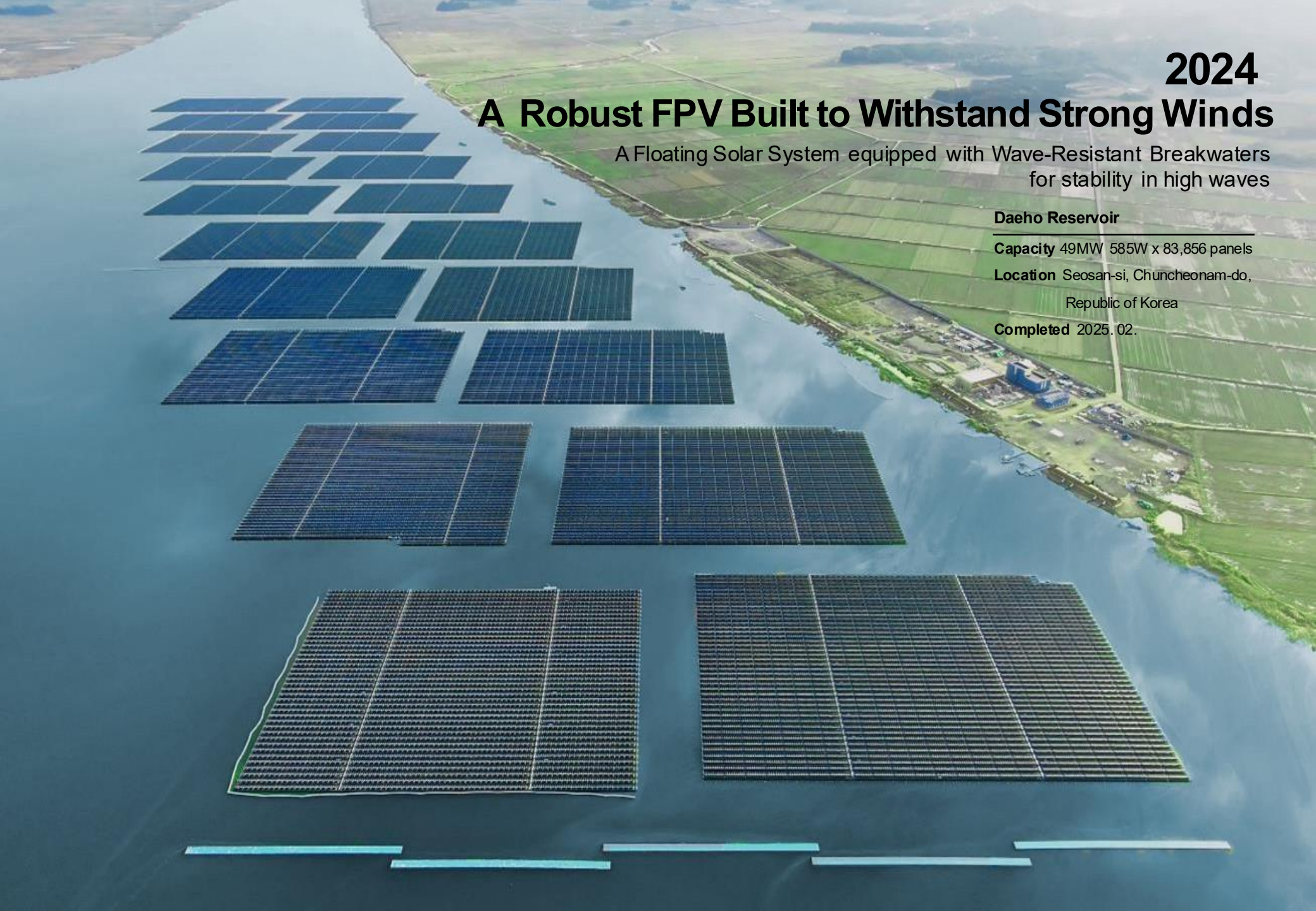
A Floating Solar System equipped with Wave-Resistant Breakwaters for stability in high waves

Daeho Reservoir

Capacity 49MW 585W x 83,856 panels

Location Seosan-si, Chunchcheonam-do,
Republic of Korea

Completed 2025. 02.



An aerial photograph of the Imha Dam reservoir in South Korea. The water is a deep blue, and several large, rectangular floating solar panel arrays are deployed across the surface. The arrays are arranged in a grid pattern, with some larger, more complex shapes. The surrounding landscape is hilly and forested, with a dam structure visible in the distance. The sky is clear and blue.

2024

"What would you like to express?"

We take pride in Scotra's world-class design execution excellence

Im-ha Dam

Capacity 47.2MW 540W x 87,568 panels

Location Imha Dam, Andong-si

Gyeongsanbuk-do, Republic of Korea

Completed 2025. 02.



2022

Taiwan's Largest Water Solar Power Project

Up to 16 meters deep, producing 17 million kWh of electricity per year

Wushantou Taiwan 13.7MW

Capacity 400W x 34,263 panels

Location Taiwan Wushantou

Area 96,483m²

Completed 2022. 04

2024 South Korea Imha dam 47MW Floating Solar



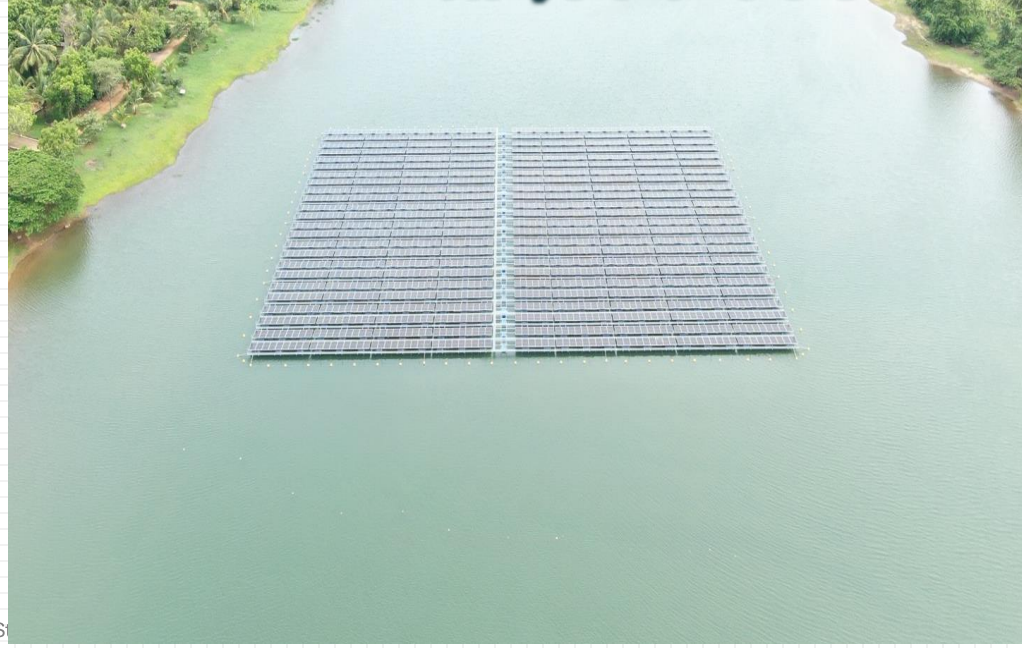
2020 South Korea Namjeong lake 25MW Floating Solar



2023 Vietnam Phuoc dong 4MW Floating Solar



2024 Sri Lanka Kirribban, Chandrika lake 2MW





For the better future with us

Thank you