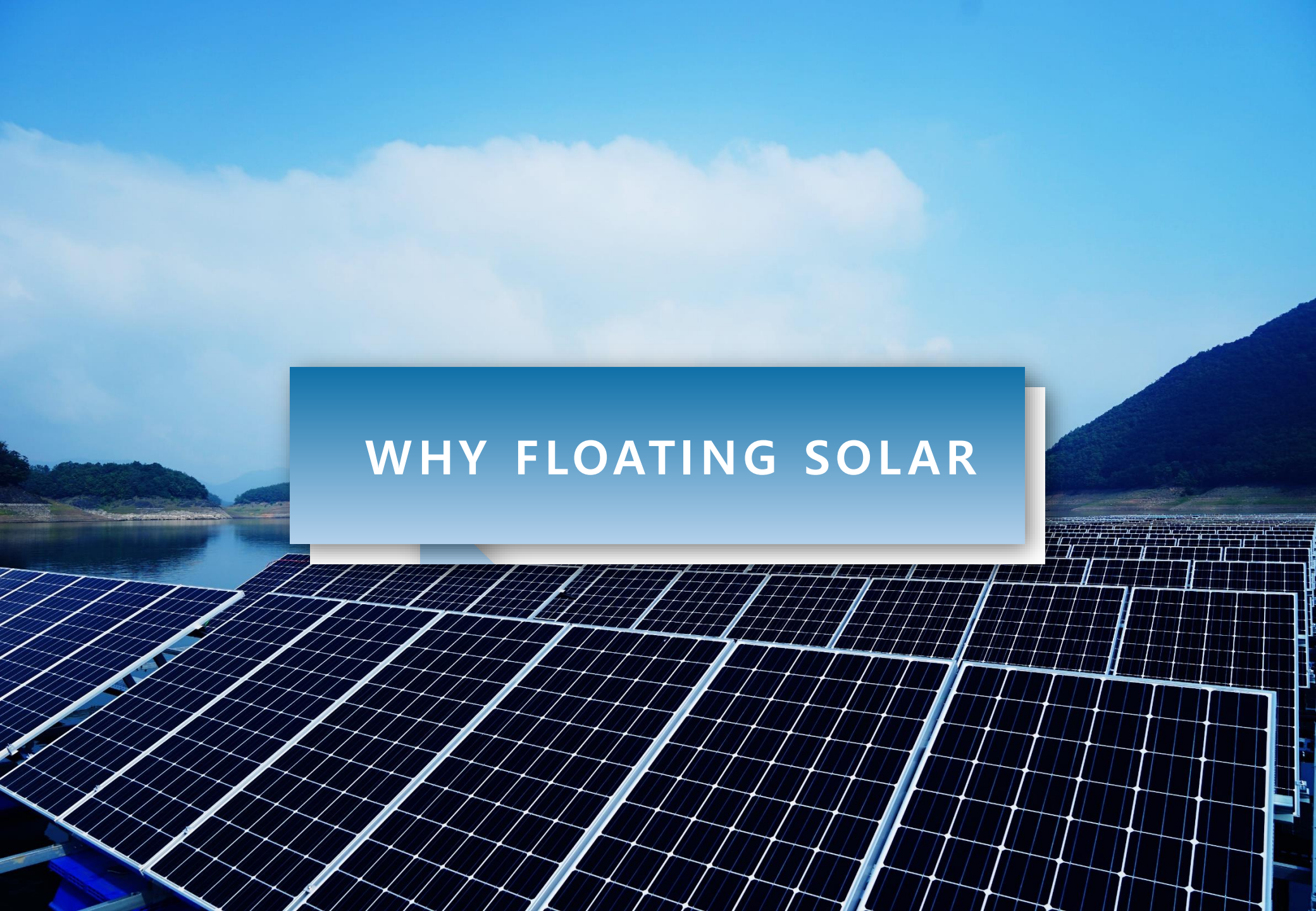
SCOTRA FLOATING PV SYSTEM

SCOTRA
Everything on the Water

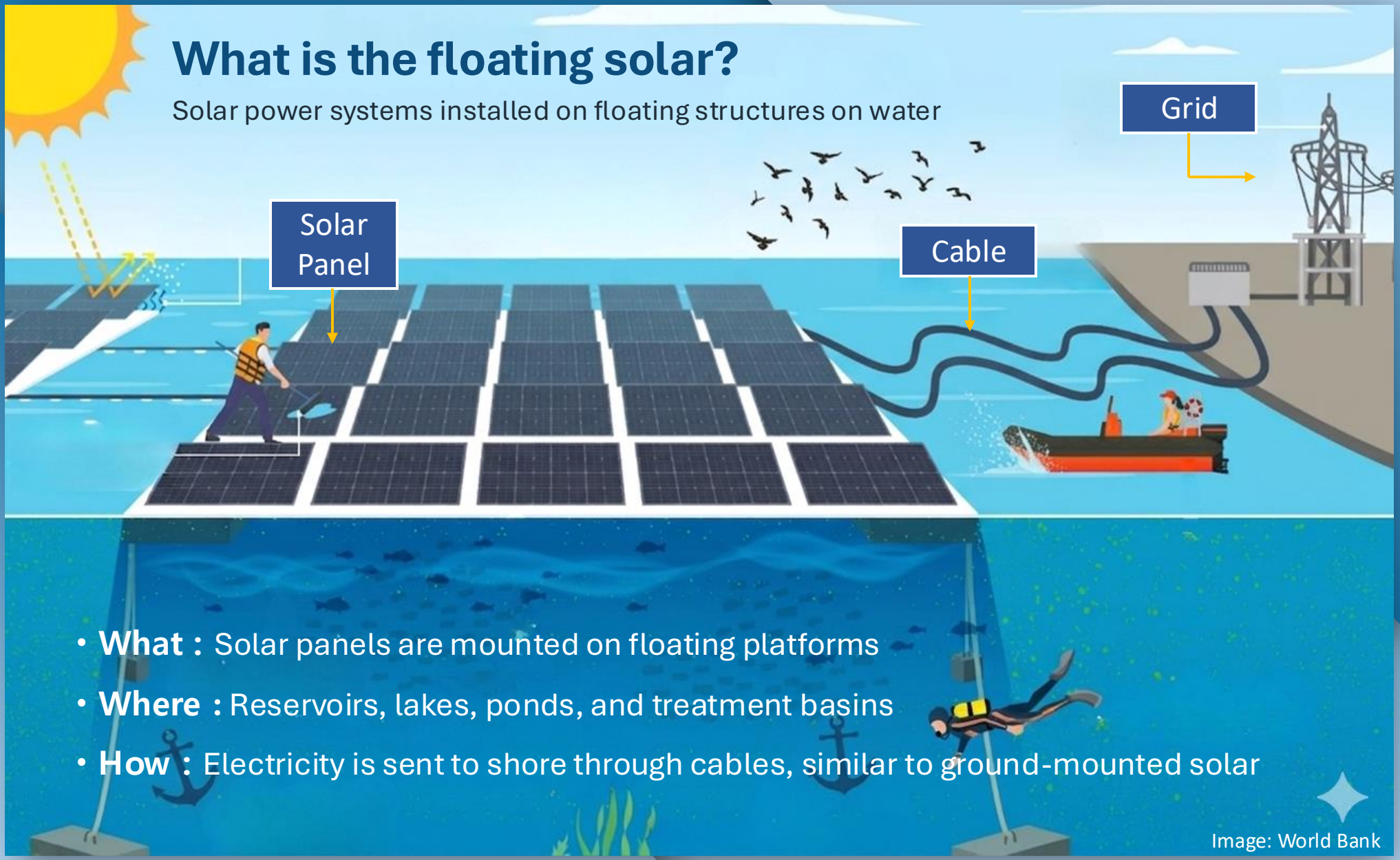
Contents

www.scotra.co.kr



WHY FLOATING SOLAR

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

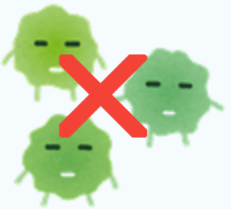
Reduction in Evaporation Up to 30%

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

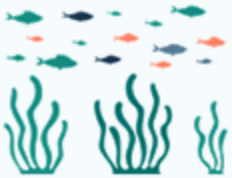
Minimized Land Damage

Protect forests and farmlands

8

Eco-friendly Ecosystem

Coexisting with nature



ABOUT SCOTRA

“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㎡	Remark
Product	Frame+Floater	2 factory buildings
Capability	500MW/year	

SCOTRA HQ OFFICE & SHOP

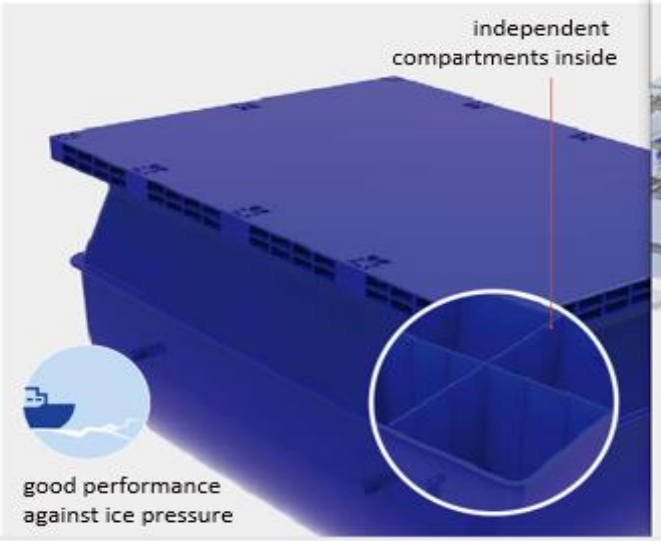
Floating Solar related Patent	Floating leisure related patent	Floating Solar related design patent	Mooring references
30ea	11ea	10ea	2,000ea

2. ABOUT SCOTRA

8th Generation Floater

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

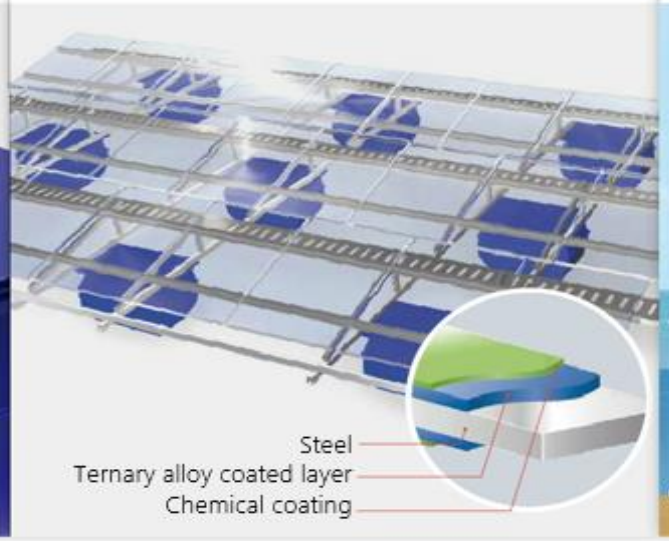
- ◆6 independent compartments inside, with constant buoyancy,
- ◆stability and strength in case of breakage and leakage.
- ◆great performance to reduce wave stress



Structure for FPV

highly corrosion-registant ternary alloy coated steel

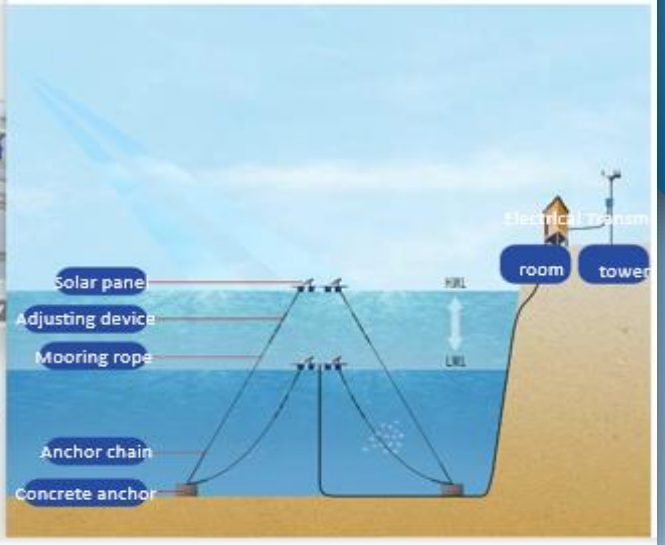
- ◆5 times higher corrosion-resistance comparing to galvanized steel
- ◆good performance of corrosion-resistance passed hygienic test for drinking water



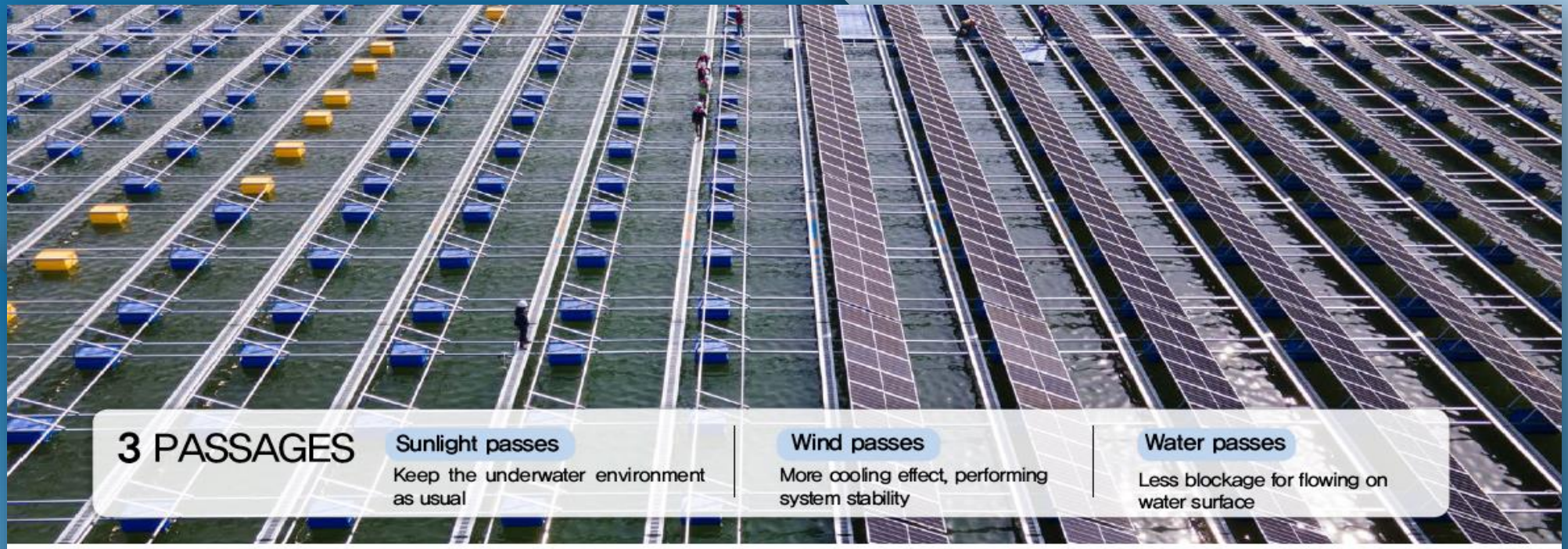
Scotra Mooring

Adjusting Device

- ◆Patent No. 10-135999



2. ABOUT SCOTRA



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.

2011	2012	2014	2015	2016	2017	2019	2022
FRP+EPS	PE+EPS Rotation Molding	EPS Rotation Molding	PE Rotation Molding	PE Injection Molding	PE Injection Molding	PE Injection Molding	New Model

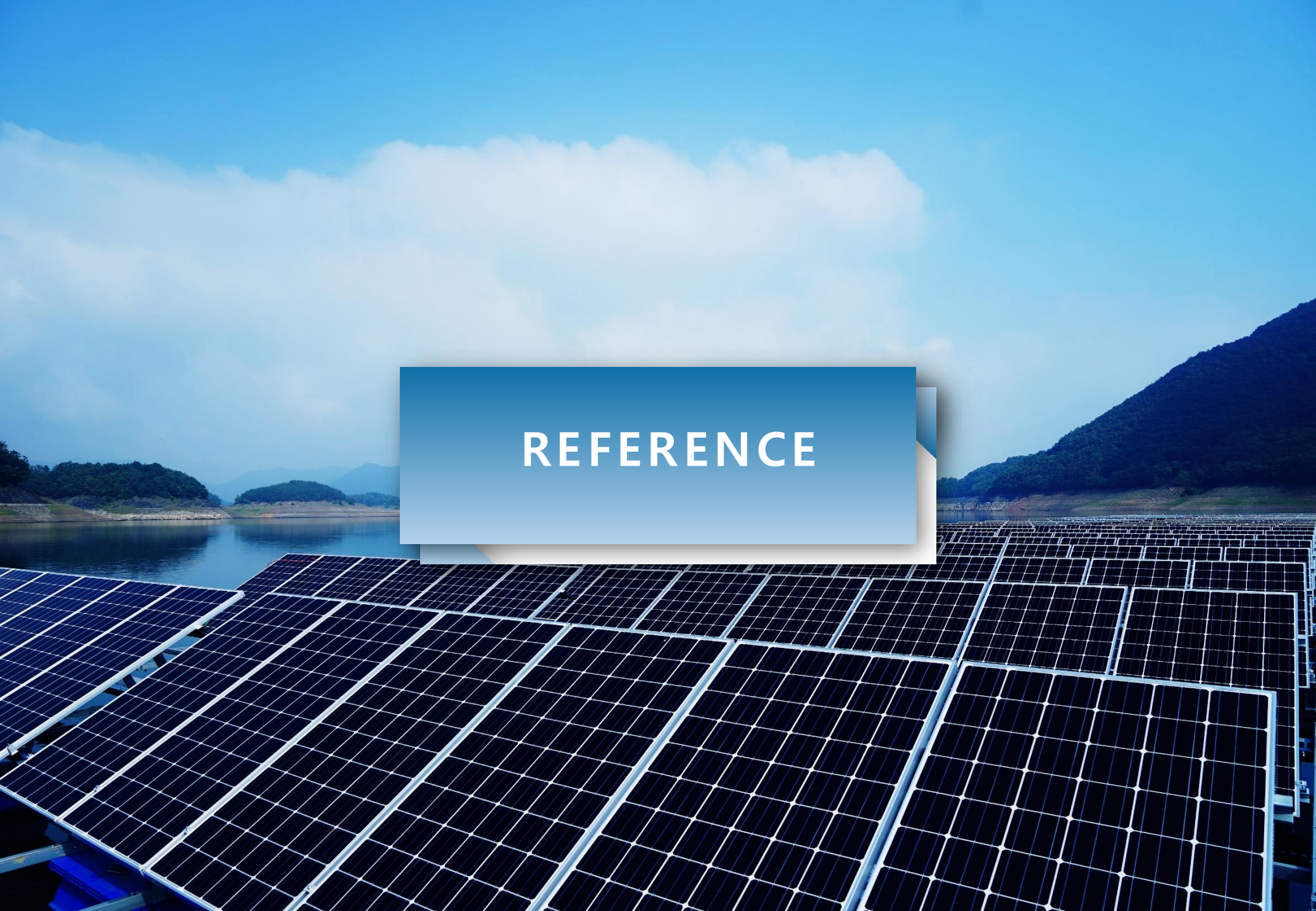
2. ABOUT SCOTRA

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

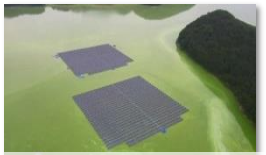
Hapcheon Testbed100kW

Reservior : 25 sites 180.6MW

Gusan basin 18.7MW

Josung2.7MW

Hai 2.5MW



Chungchun 2MW

Overseas : 18 sites 31.1MW

Japan 0.4MW

Japan 0.5MW

Philippine 0.05MW

Taiwan1.2MW

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 467,821㎡
Completed 2021. 11

World's first commercialized Floating PV System in Dam

Hapcheon Dam 500kW **Capacity** 300W x 1,656 panels
Area 8,331㎡
Completed 2012. 06

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 x 18,360 panels

Location Soyang River Dam, Yanggu-gun, Gangwon-do

Area 94,3301.41㎡

Completed 2023.11.

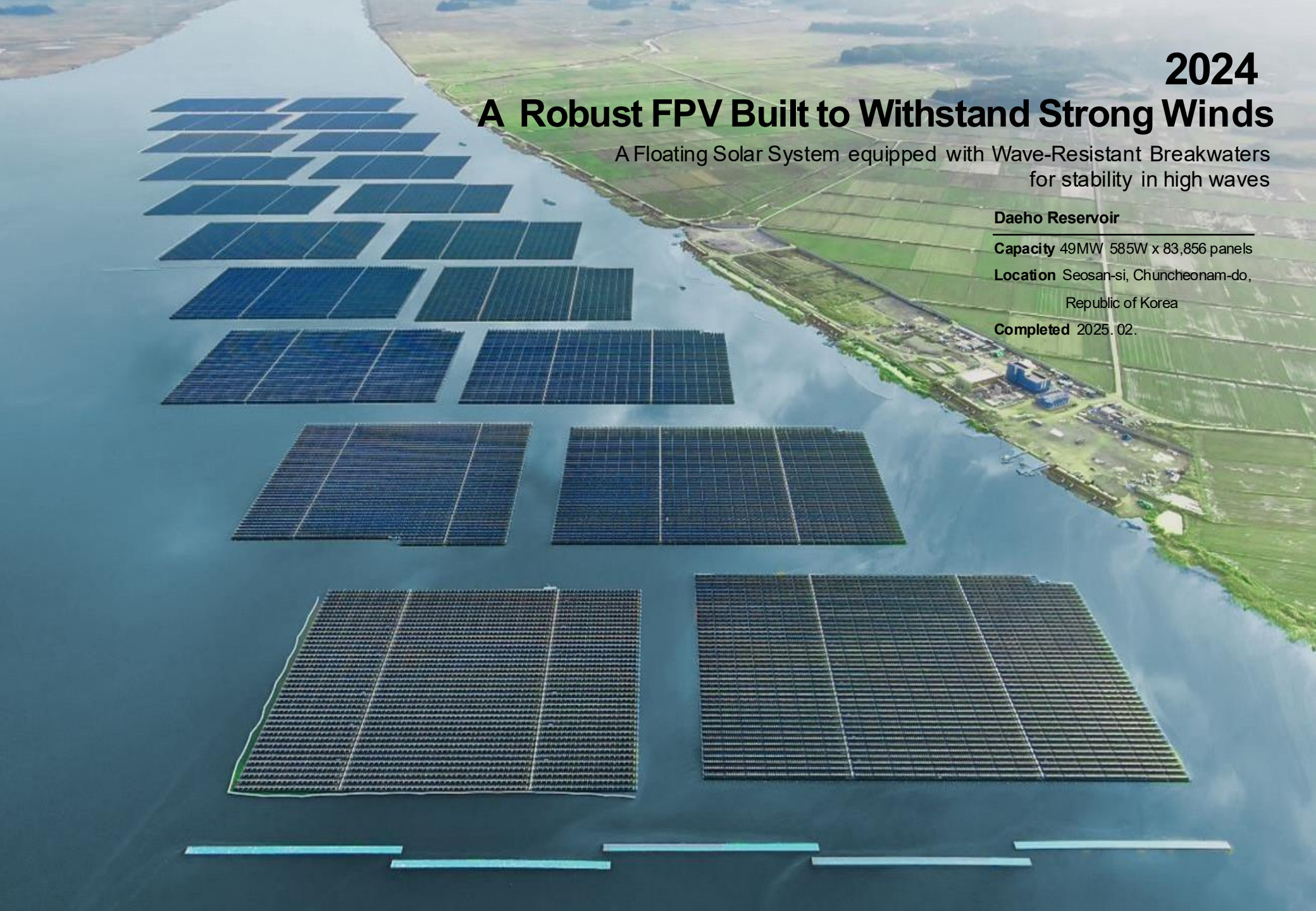
Goheung Lake 28.2MW

Capacity 415W, 475W x 64,911 panels
Location Goheung Lake, Goheung-gun, Jeollanam-do
Area 251,851㎡
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

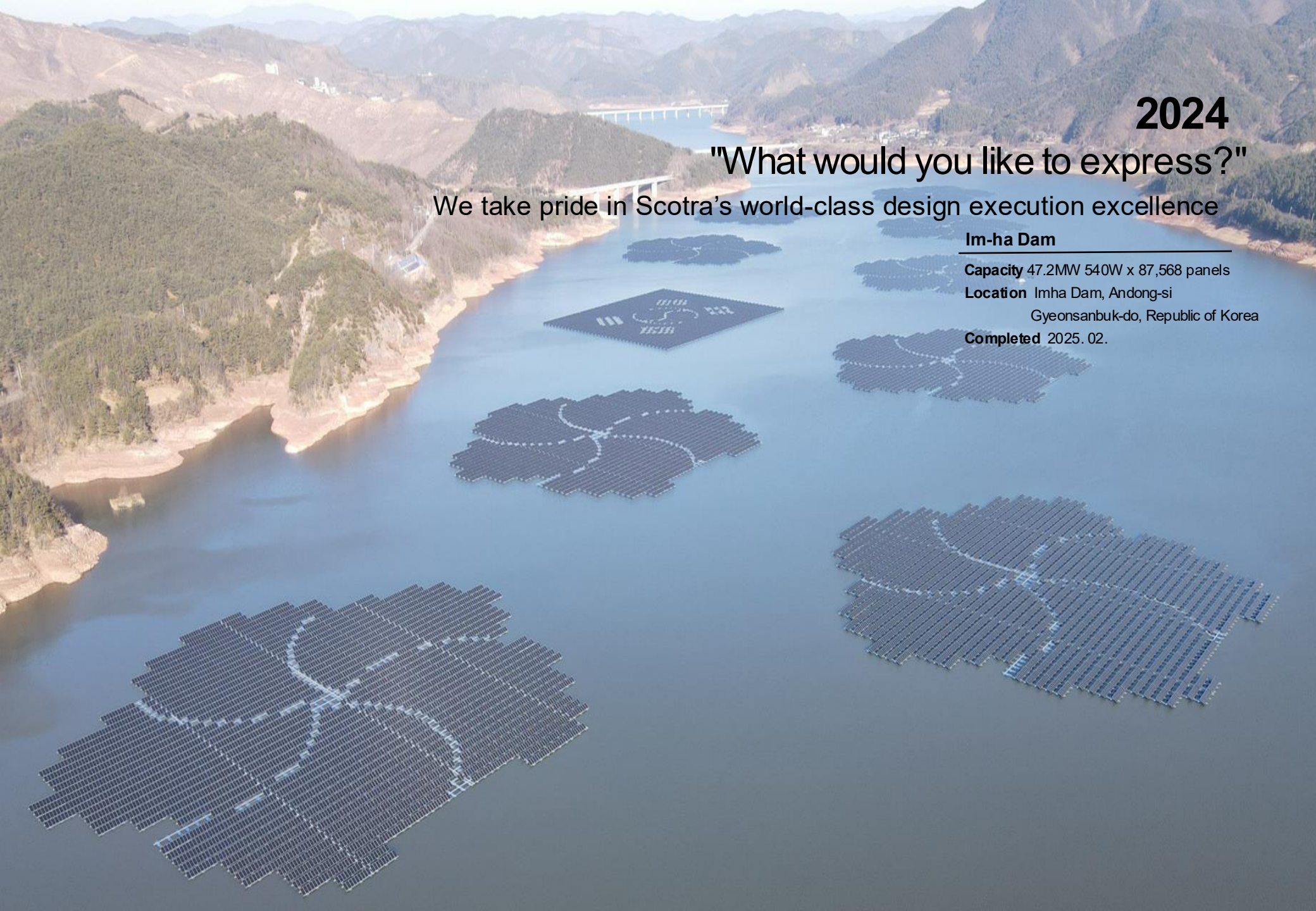
A Floating Solar System equipped with Wave-Resistant Breakwaters for stability in high waves

Daeho Reservoir

Capacity 49MW 585W x 83,856 panels

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

Completed 2025. 02.



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
Gyeonsanbuk-do, Republic of Korea
Completed 2025. 02.

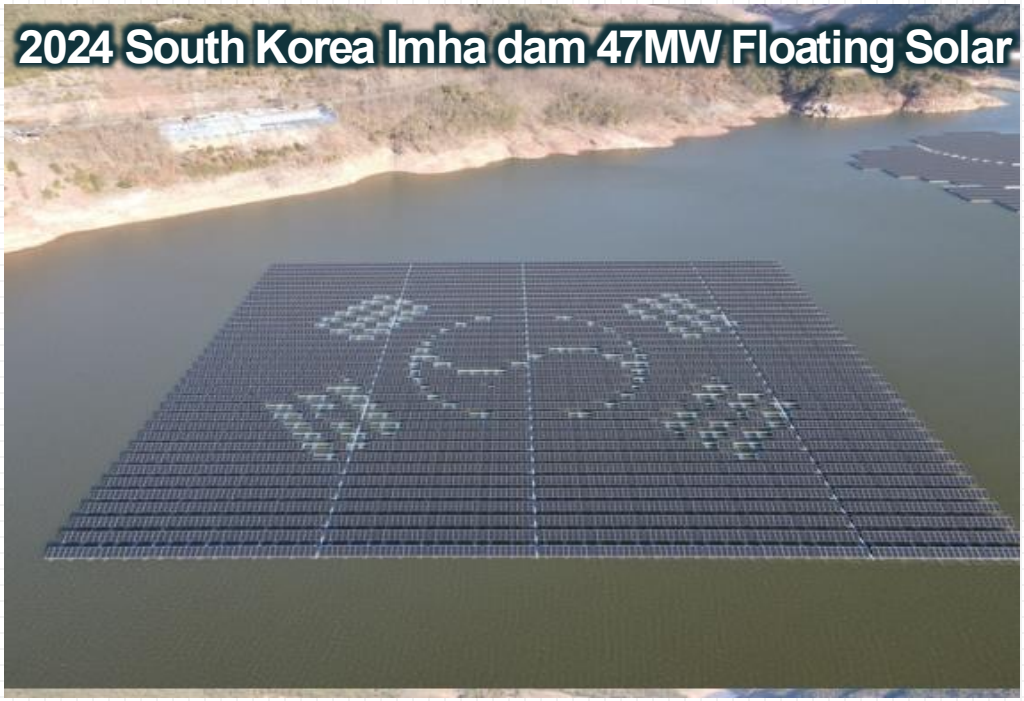
2022

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 96,483㎡
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

SCOTRA

Everything on the Water

For the better future with us

Thank you