

CTSP

30-07-  
2021

**FLOATING SOLAR**

**PRESENTATION**



THE FLOATING SOLAR EXPERT WITH HYDRELIO<sup>®</sup> TECHNOLOGY

# Tracking records - Experience / Proven Technology

 **285+ Projects**

Total floating solar capacity installed  
[Dec-2020]



**1.2+ GWP in total**  
**520+ MWp**

Total floating connected to grid [Dec-2020]



**8 Hydrelío® Patent**

70+ million € invested in R&D with  
10Years continual program



**88 MWp**

The largest floating PV plant  
installed with Hydrelío® in  
Taiwan



**32 Countries**

Total countries with FPV using  
Hydrelío® technology



**WORLD  
LEADER**



**670+ MWp**

Total on-going projects in the pipeline  
to be connected [Dec-2020]

# WORLDWIDE PRESENCE

**160** Collaborators

**13** Local Offices

**40+** Manufacturing Lines

**15+** Agents & Distributors



 Offices     Licenses     Partners     Manufacturing

# Projects in India

4 Projects signed in India in a short span of 2 years cumulatively 94 MWp

- **452 KWp** pilot floating project in CIAL cochin, Kerala - Commissioned in Oct 2019,
- **5.4 MWp** floating project for WBPDC, Sagardighi, Murshidabad, West Bengal –commissioned by Oct 2020
- **14.7 MWp** floating project for SPIC, Thoothukudi, Tamil Nadu- Installation completed, commissioning by March 2021
- **75 MWp** floating project Under construction in South India - Installation started in Oct 2020/ Completion by Aug 2021



# COMMISSIONED PROJECTS INDIA



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&  
Terre  
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COCHIN INTERNATIONAL AIRPORT, KERALA 452 Kw



WBDCL, THERMAL POWER PLANT, WB 54 MWp

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# India's Largest Installed project 14.73 MWp



SPIC-FERTILISER PLANT, TAMILNADU 14.7 MWp

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# ONGOING PROJECTS INDIA

ANCHORING MOORING INSTALLATION ON BARGE



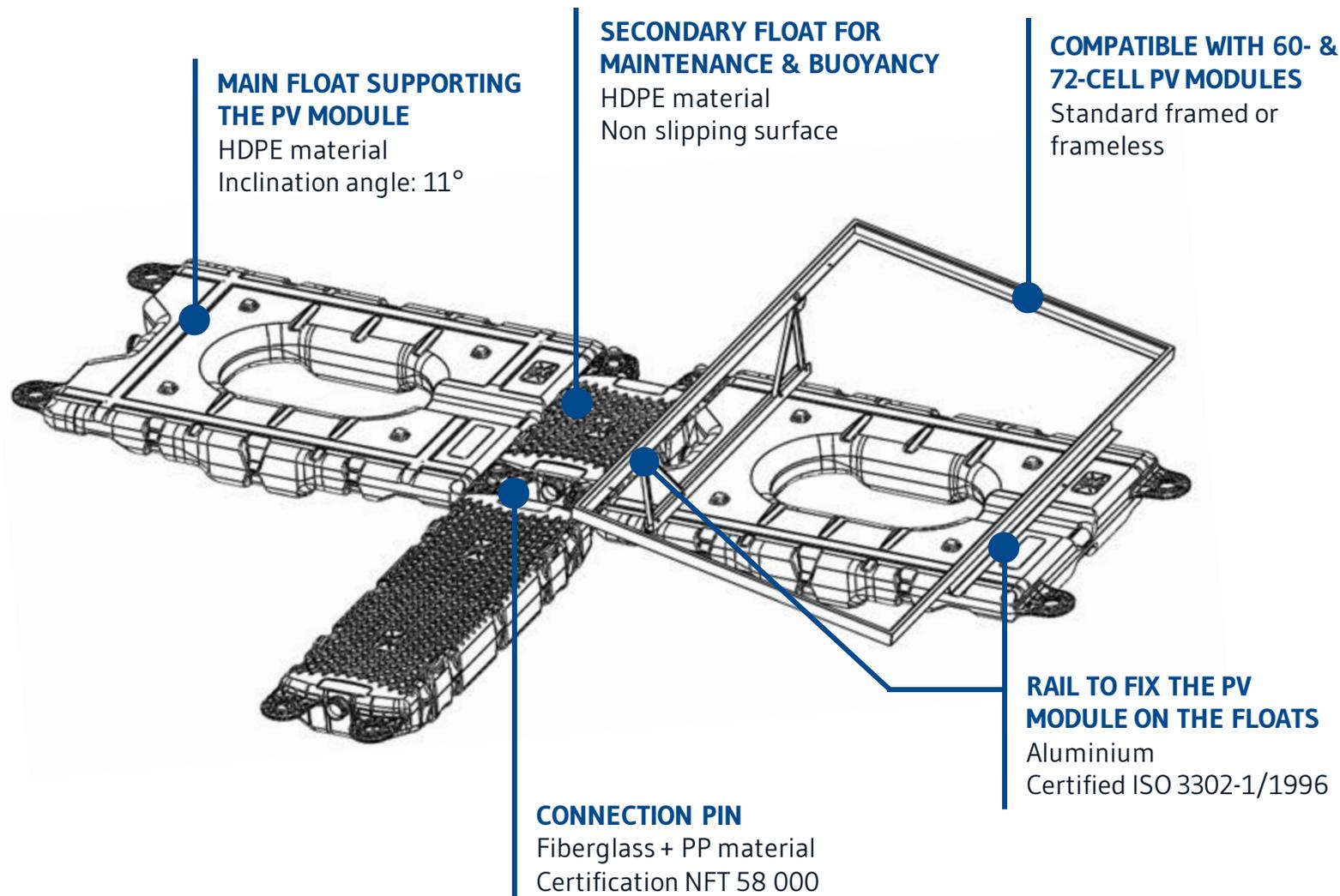
COMPLETED ANCHORING & MOORING SYSTEM

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FLOATING SOLAR PLANT – 75 MWp

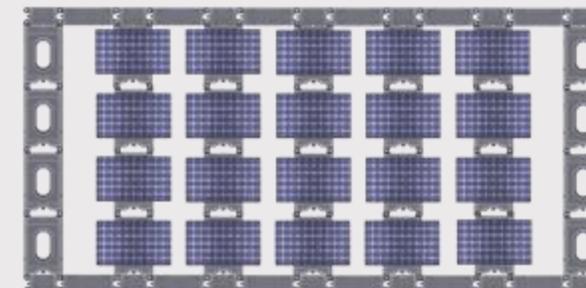


# HYDRELIO<sup>®</sup> AIR



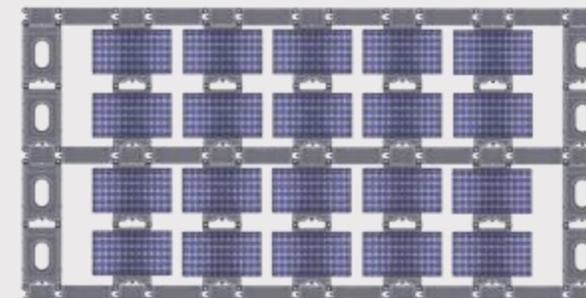
## 4-in-a-row

Most cost-effective solution at 11°



## 2-in-a-row

Easier maintenance

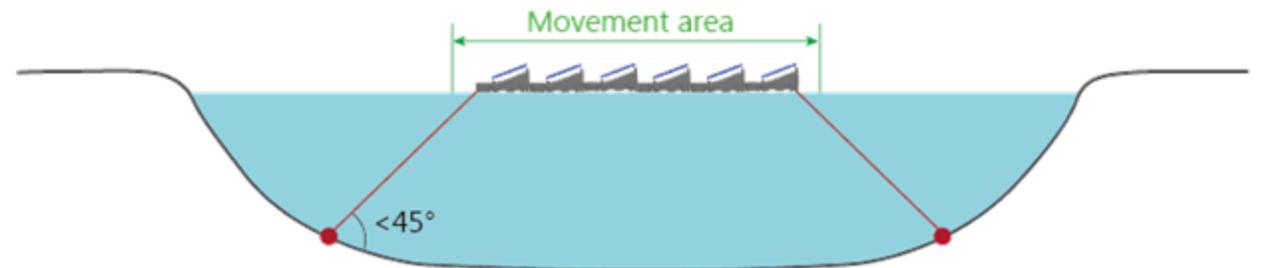


# CUSTOMIZED ANCHORING SOLUTIONS

- Design based on wind tunnel tests and continuously adapted following our experience
- Ratio: **between 15 and 25 anchors per MWp**
- Bank, bottom or hybrid anchoring
- Plate anchors, helical anchors, deadweights...

| ANCHORING MEASURES  |  |
|---|--|
|  | <b>Wind speed:</b><br>Up to 210 km/h (131 mph)                             |
|  | <b>Topography / Bathymetry:</b><br>80 m (water depth record)               |
|  | <b>Soil composition</b><br>Field tests / SPT (Optional) / Soil composition |
|  | <b>Water level variation:</b><br>30 m (current record)                     |

Maximum water level



# WHY CHOOSING HYDRELIO<sup>®</sup>?

- Unique Master Program to cover entire plant asset for 25 Years
- Standard Warranty Program 10 Years
- Tough terrain experience with extreme wave conditions, wind conditions, water level variations, Soil conditions, high depth etc
- Inhouse Anchoring Design & expertise executed more than 2000+ Design worldwide
- Sea wave study collaboration with Principia, a leading offshore player to implement & integrate wind and wave design
- Product Certification from highly accredited world class laboratories

# QUALIFIED MULTI-TESTS



- Wind Tunnel real-scale Testing by ONERA and Computed Fluid Dynamics
- **Sizing for 60 m/s**



- Tensile Strength Testing performed **up to 1,000 N/m<sup>2</sup> snow load**
- **Track-record: 30 cm / -20°**



- Full-scale mechanical validation tests performed **up to 50°**.
- Cumulative UV Testing: **40,000 h** (ASTM G154 and ISO 4892-2)



- Bending Fatigue real-scale Testing: **over 2.5M cumulative cycles**
- **Sizing for waves up to 1 m**



- Water compliance certified BS6920:2000 and recognized by Japanese Law "Food Sanitation Act"
- **Track-record: 20+ plants on sensitive water**

# THANK FOR YOUR ATTENTION CONTACT FOR MORE DETAILS

For more information and latest news about floating solar Follow, Like, Comment our **LinkedIn page**

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