



Opening of Sembcorp Tengeh Floating Solar Farm

13 July 2021

Achieving Singapore's Clean Energy Ambition

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SEMBCORP TENGEH FLOATING SOLAR FARM

OPENING CEREMONY 2021

14TH JULY 2021 | TENGEH RESERVOIR



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SINGAPORE'S
NATIONAL
WATER AGENCY

CLEAN WATER
from
CLEAN ENERGY



A Leading Solar Energy Provider in Singapore

- More than 370MWp of contracted solar power capacity, spread across more than 2,500 sites
- Experienced in rooftop, ground-mounted and floating solar photovoltaic (PV) solutions for commercial, industrial and public residential customers
- Renewable energy partner for corporates such as UBS, CapitaLand, SIA and more



HDB roof @ Jurong West (SolarNova Programme)



HDB roof @ Choa Chu Kang (SolarNova Programme)



10-year deal to supply solar power to support UBS' Singapore operations



JTC SolarLand Programme Phase 3 (18MWp)

Photo credit: UBS, SingHaiyi Group, Suntec Reit - @ 9 Penang Road

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Supporting the Long-Term Growth of Solar Energy in Singapore

Collaboration with Institutes of Higher Learning for R&D projects and skills training

2019: Partnership with Singapore Polytechnic

- Aims to commercialise solar panel recycling through a partnership with SP researchers; a pilot prototype recycling plant is underway
- Jointly developed course curriculum, internships as well as continuing education programmes for managers, engineers and technicians in the solar industry

2021: Launch of ITE-Sembcorp Centre for Sustainable Solutions

- Set up at ITE College East, it is the first-of-its kind integrated sustainable solutions training centre for students, with an emphasis on solar photovoltaic systems
- The partnership includes the joint development of staff capability and training programmes to expand the solar industry's talent pool



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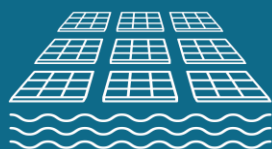
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About Sembcorp Tengeh Floating Solar Farm

Total Installed Capacity



Sembcorp Tengeh
Floating Solar Farm **60MWp**

Key Statistics



Size of
45 Football
Fields



Powering **16,000**
4-Room HDB Households



Occupying
one-third
of Tengeh Reservoir (45 hectares)



Offsets **32 kilotonnes** of
carbon emissions annually,
equivalent to taking
7,000 cars off the roads.

>800

Sinkers

>122,000

Solar Panels

>250,000

Floats

10

Floating
Solar Panel Islands

16

Power Conditioning
Systems

Singapore's Solar Target

Singapore is aiming to deploy at least
2 gigawatt-peak (GWp) i.e. **2,000 MWp** of solar capacity by 2030,
supplying about 3% of Singapore's total electricity demand.

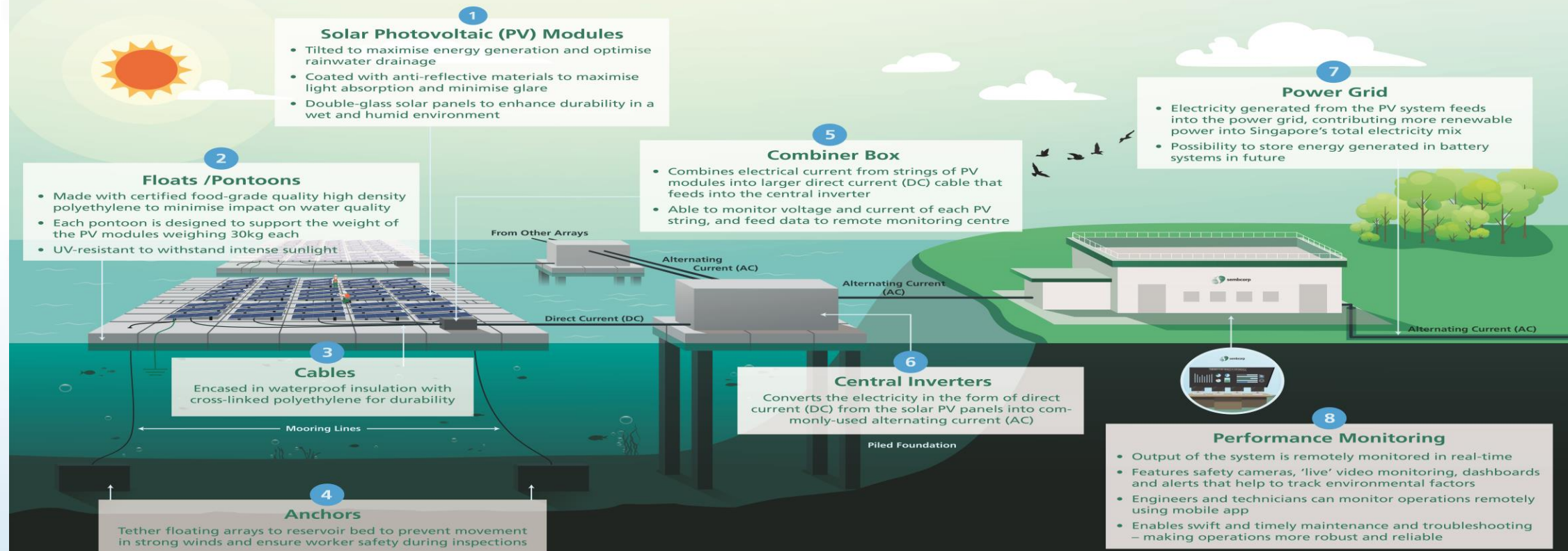
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TOWARDS A GREENER FUTURE EMBEDDING SUSTAINABILITY IN THE DESIGN OF THE FLOATING PV SYSTEM



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Driving Operational Excellence through Innovative Solutions

- A **custom-built jig** designed to increase the rate of solar panel assembly by up to 50%
- **First in the world to deploy advanced drone electroluminescence imaging technology** on a utility-scale photovoltaic system
- **Drones** are also used for regular operation and maintenance checks, which helps to shave manual inspection costs by about 30%
- **Sembcorp's digital monitoring platform** helps its engineers monitor the renewable energy generation in real time



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THANK YOU!

Any Questions?

