CorPower Ocean

The Role of Wave Energy in Southeast Asia's Energy Mix

ADB Knowledge Sharing Webinar
29th September 2025

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The Opportunity: 500GW

10% of global electricity

- 500-1800 GW | 2000-7200 TWh
- CO2 Reduction | 1 – 2.2 Gigaton / year (vs Gas - Coal)
- Production profile is more consistent and complementary to wind and solar, providing higher average revenue potential per MWh.
- Provides grid balancing enabling 100% renewable electricity systems.

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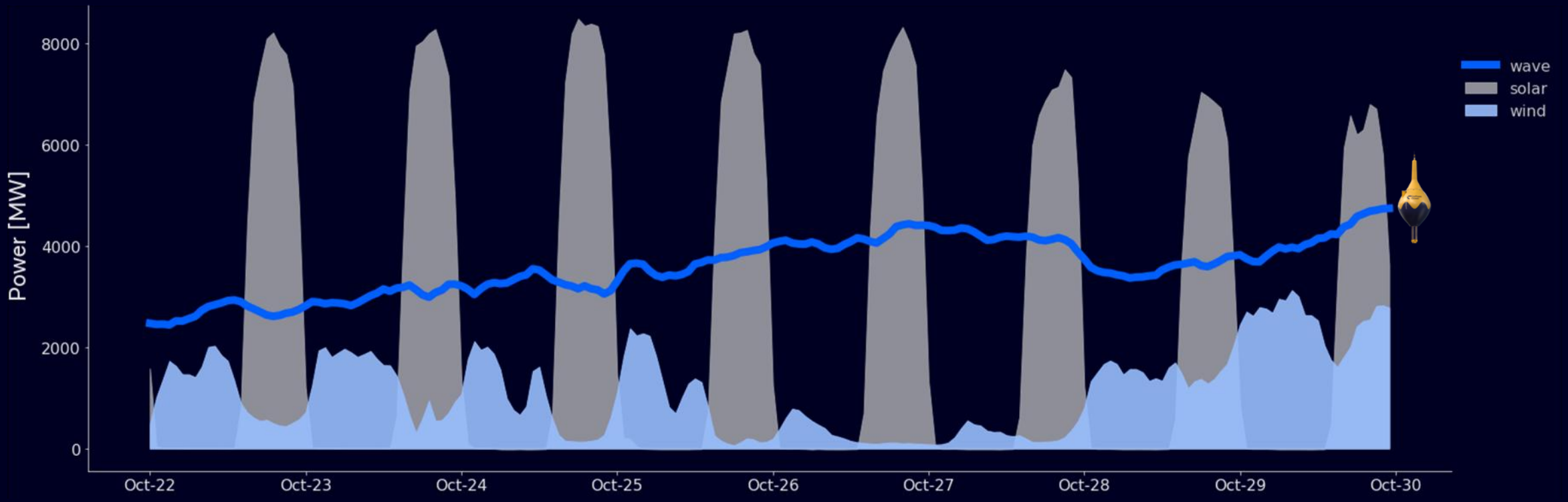
Consistent production profile

Enabling 24/7 Carbon Free Energy



Wind (6.5 GW) and solar (13.5GW) production: Actual time series of the period Wave production (6.0 GW): Estimate based on measured wave data and CorPower power matrix 6 GW wave energy devices evenly distributed over four sites along the coast of California.

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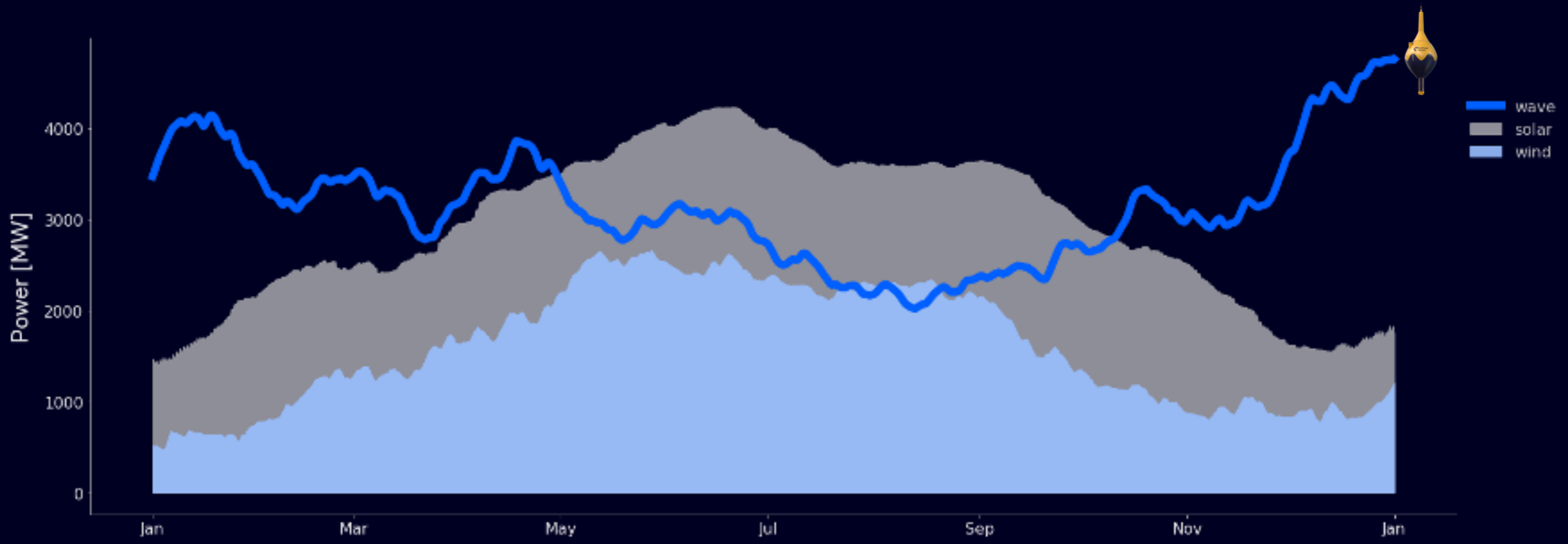
Annual profile

Complementary to solar and wind



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The ocean
A huge energy storage unit

Taking a stabilizing role that fossil has had historically

Reducing cost of firmed clean electricity

Accelerating 24/7 Carbon Free Energy

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CorPower WECs

3-400 kW
Power Rating

10-30 MW
Wave Cluster Size

40-60%
Capacity Factor

>40 m
Installation Depth

15MW/km²
Spatial Density

0.25-6 m
Operational Range (Hs)

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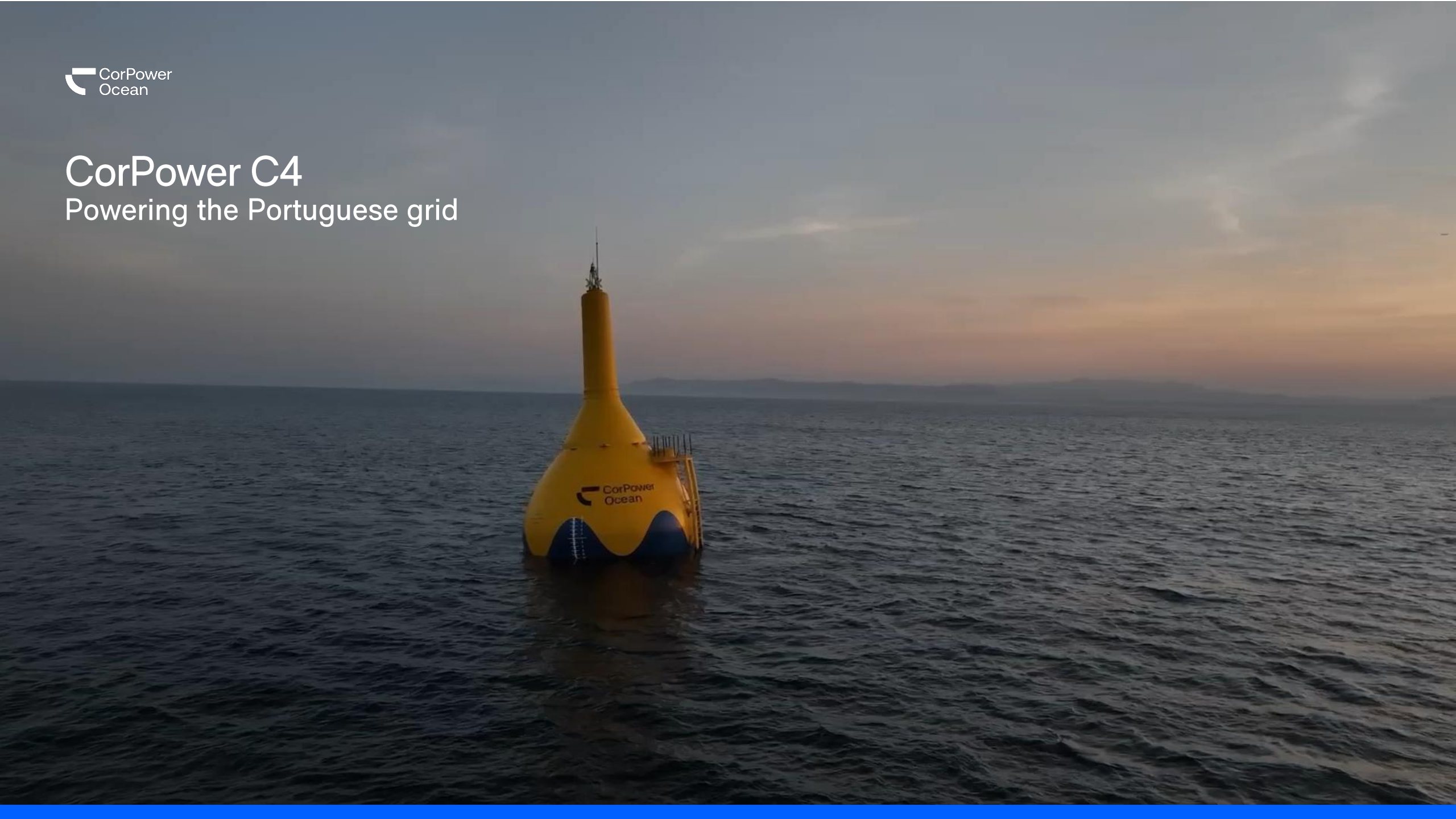
CorPower C4

Powering the Portuguese grid



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Structured market introduction in 5 stages

IEA-OES framework for ocean energy technology

2012—2013

Stage 1
Concept

Validation

2014—2015

Stage 2
Critical System tests

Dry and tank testing

2015—2018

Stage 3
1:2 scale device

Dry and ocean testing

2018—2023

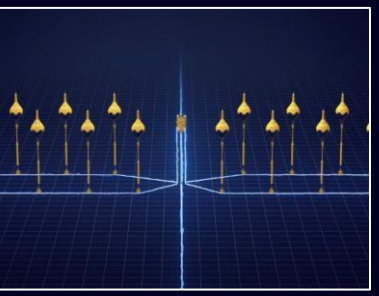
Stage 4 – TRL 7
Full scale device

Dry and ocean demo

2024—2026

Stage 5 – TRL 8
4 device array

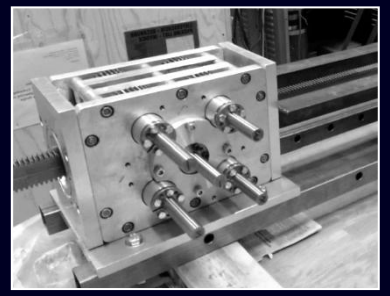
Pilot array (4 WECs)

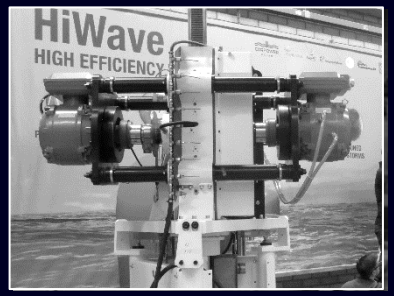


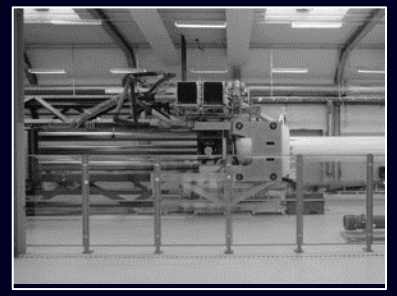
2027 — Onwards

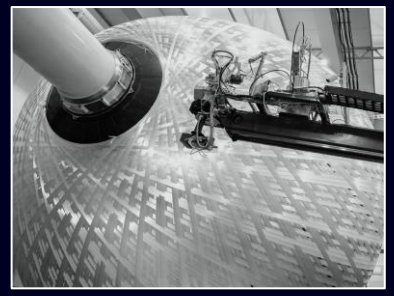
Commercial - TRL 9
Wave Farms

CorPack clusters (10-100s WECs)









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Southeast Asia
The hidden secret

Untapped large-scale potential

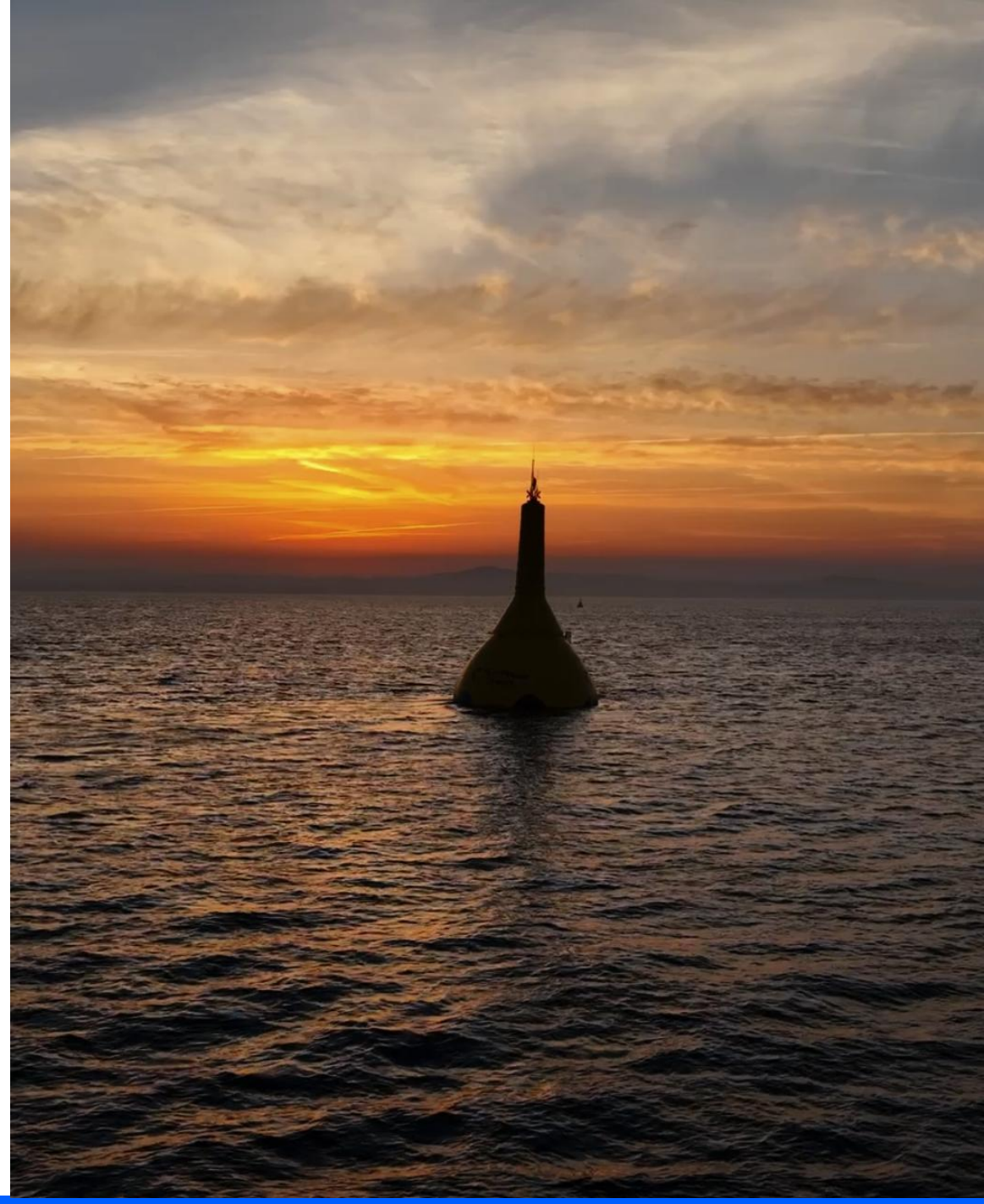
- SEA's vast coastlines hold **multi-GW theoretical wave energy capacity**, which can significantly contribute to regional climate goals and long-term decarbonization.

Complementarity

- Helps balance variability and enabling **24/7 carbon-free electricity (CFE)** when combined with solar, wind, hydro, and geothermal.

Strategic benefits

- Harnessing domestic wave energy can strengthen **energy independence**, reduce exposure to volatile fossil fuel imports, cut long-term system costs, and position SEA as a leader in **innovative ocean-based clean energy**.



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The Philippines

Opportunity

- Near-term practical potential: 15–25 GW.
- No existing commercial wave projects yet.
- First-mover advantage for early pilot arrays (MW scale).

#	Coordinates	Net CF G12	Depth	Distance to shore
1	19.6°N 122.0°E	39%	189 m	3.3 km
2	8.6°N 126.4°E	22%	149 m	7.2 km
3	12.0°N 125.6°E	26%	207 m	9.7 km

[1] iea Electricity consumption 2019 22 848 TWh

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Summary of Resource Slides

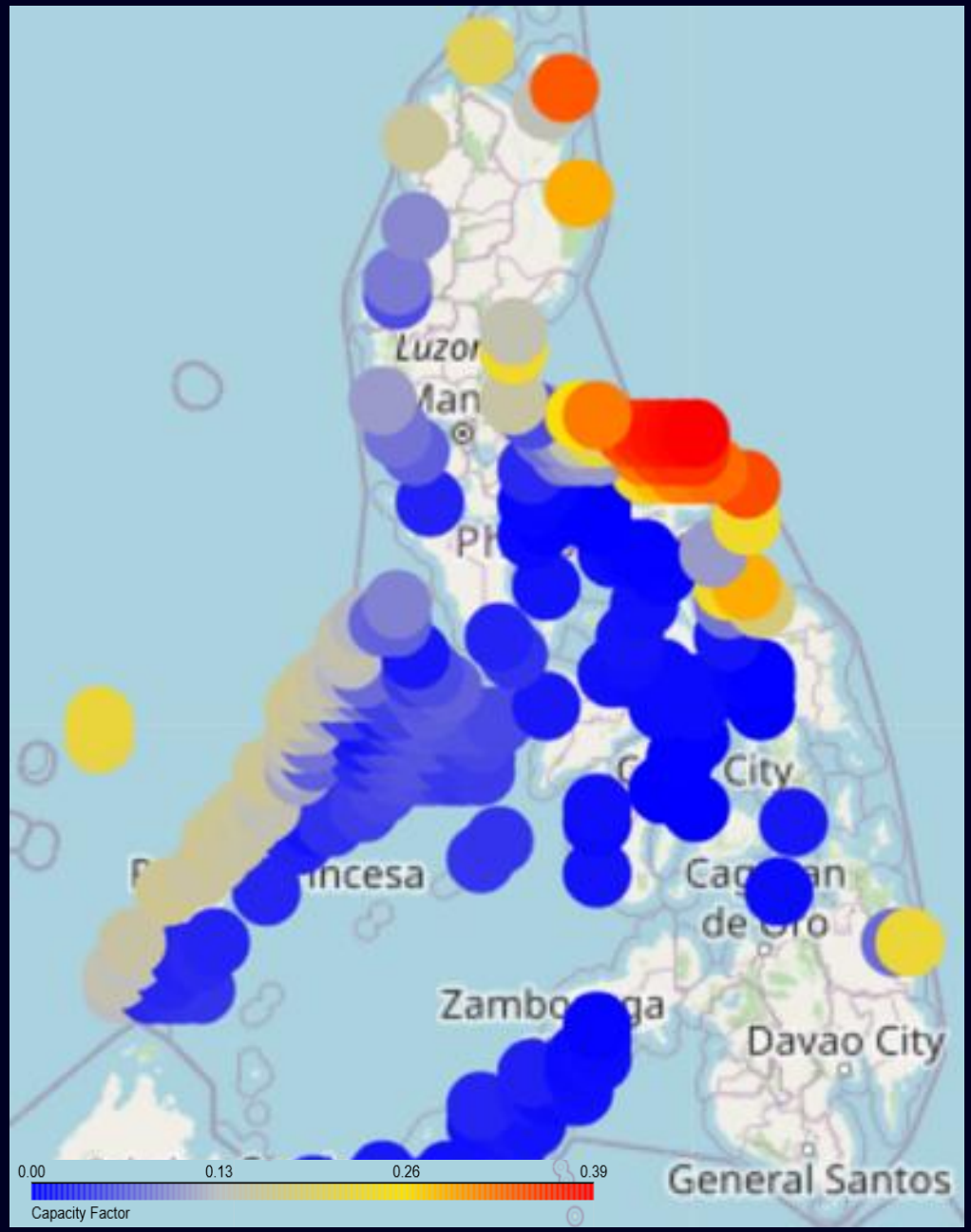
Global Ocean Waves Reanalysis

CorPower's initial technology specific performance assessment is applied to the Philippines.

Please find the link attached to the email to access the entire interactive map.

Specifications:

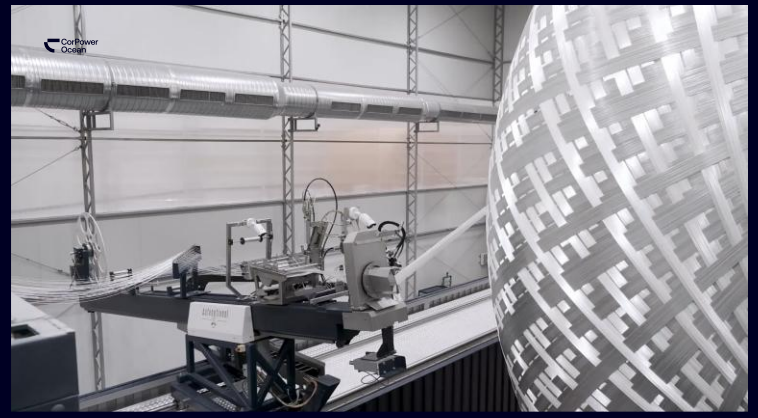
- Data source: Copernicus
- Spatial resolution of 0.2° x 0.2°
- Datapoints are filtered regarding the CPOs' suitable conditions:
  - Distance to shore from 1 km to 100 km
  - Water depth from 40 m to 250 m
- Gives Hs (significant wave height) and Te (energy period)
- The Net Capacity Factor is displayed on the map.



Some of our next steps

Join us

- **Regional relevance** – long coastlines, remote communities, resilience and job creation.
- **Strategic context** – climate, energy security and blue economy synergies.
- **Technology positioning** – current traction in ocean energy worldwide.



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Wave power.
To power the planet.

corpowerocean.com

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