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INTERNATIONAL CONFERENCE

INCLUSIVE ENERGY TRANSITIONS IN SOUTHEAST ASIA AND BEYOND

Cross-Regional Learning from South Asia

10–12 February 2026 • Jakarta, Indonesia



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Philippine, Offshore Wind Development: Technoeconomic and Social Challenges

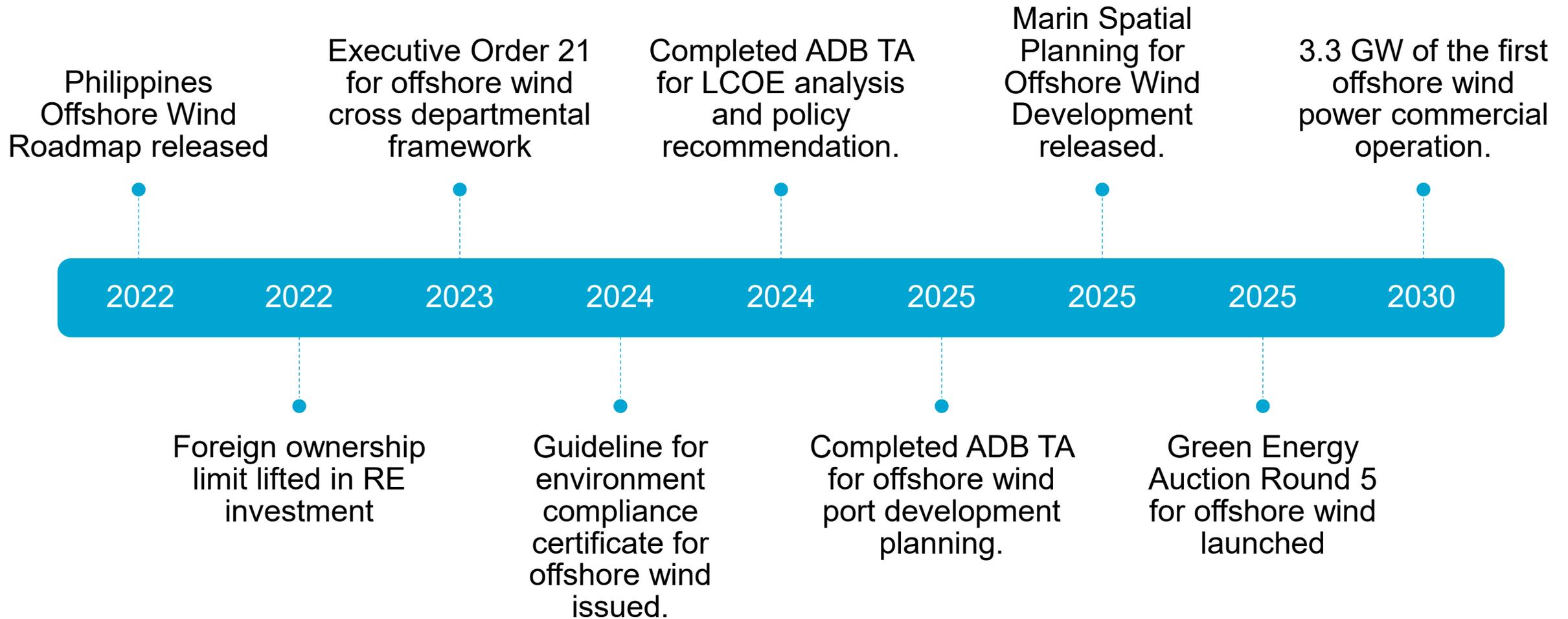
Shigeru Yamamura, Asian Development Bank

Solving Complex
Challenges Together



Offshore wind development in the Philippines

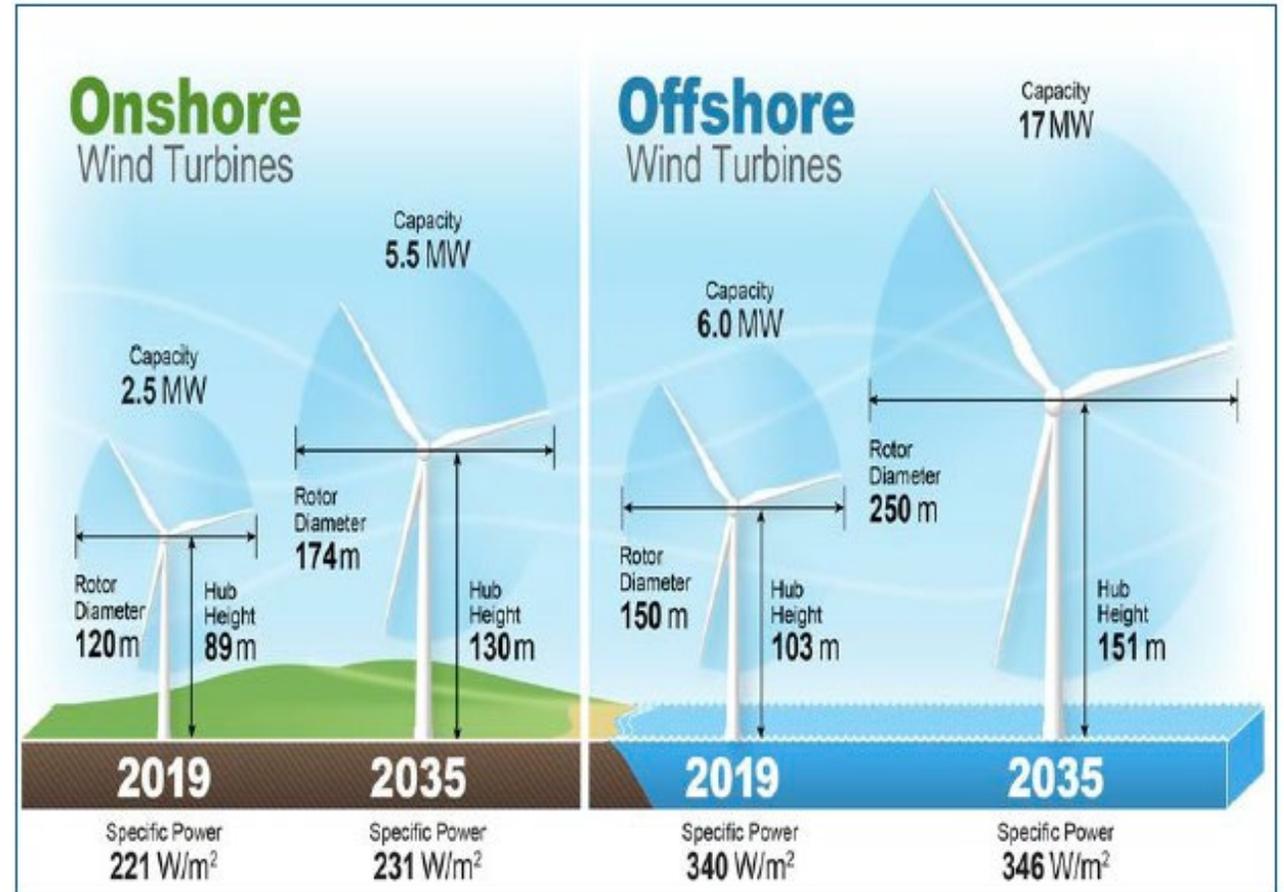
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Why Offshore Wind in the Philippines?

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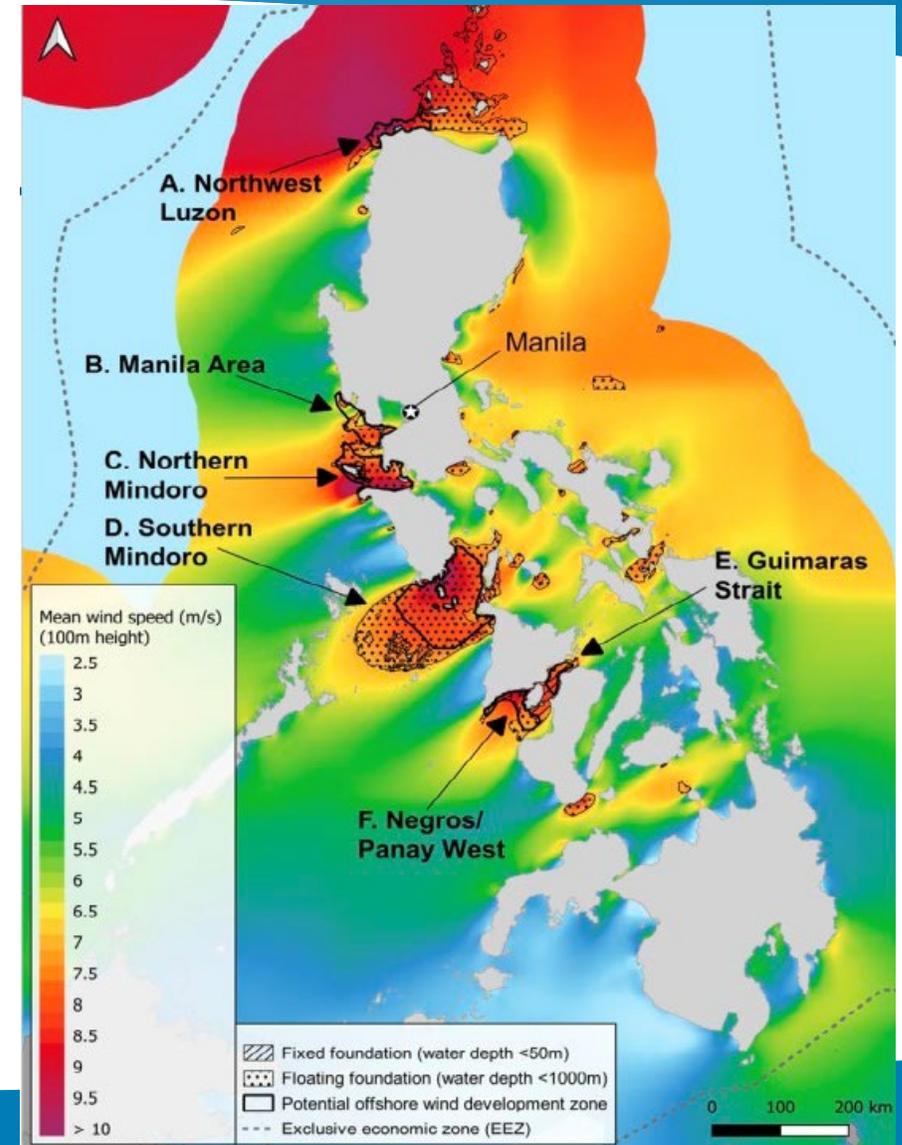
- Higher and more consistent wind speeds.
- Access to larger turbines and energy potential.
- No land constraints for large scale deployment.
- Complement solar power (night and seasonal change).
- >200 GW of theoretical potential
- Up to 70 GW deemed technically feasible.



Offshore wind potential and technologies

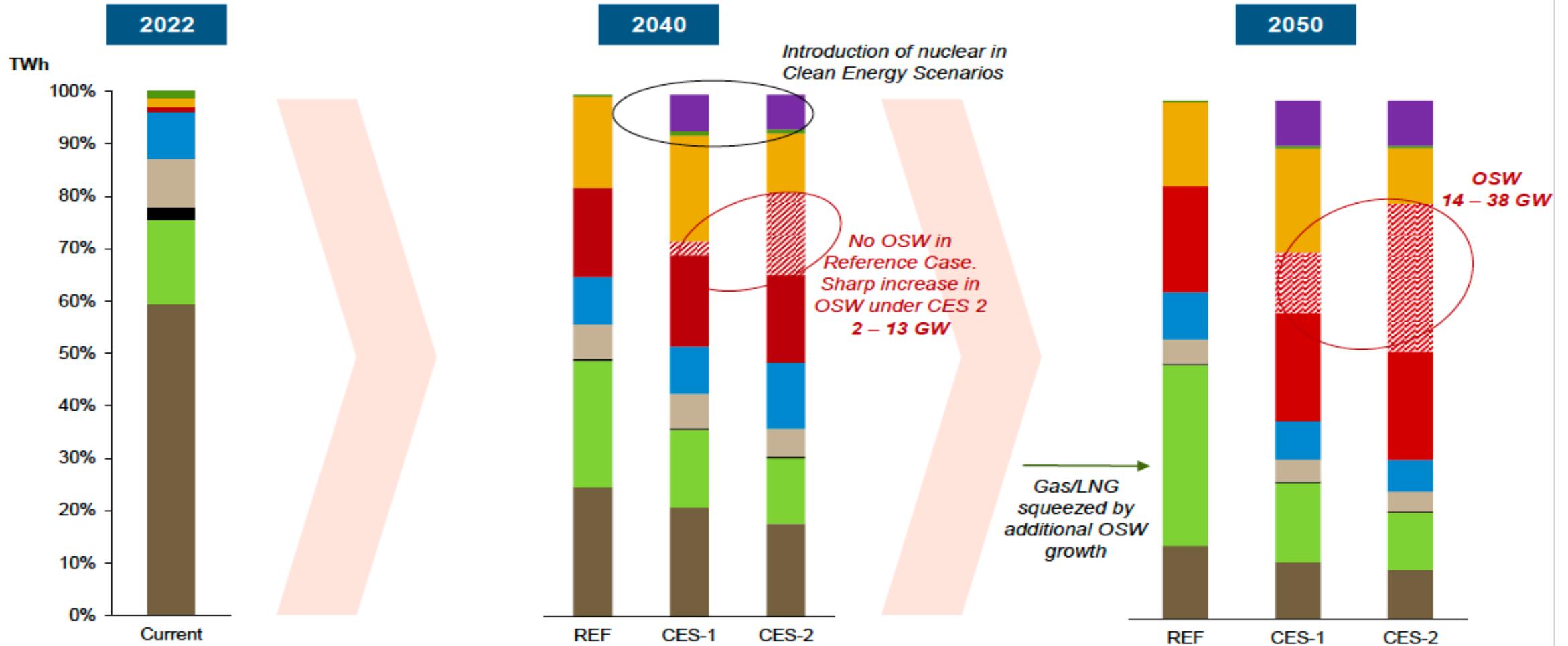
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- >200 GW of theoretical potential
- Up to 70 GW deemed technically feasible.
- 90% of suitable area is below 50m depth.
- Scaling up floating turbine inevitable.
- Floating yet to be fully commercialized.



Philippine Energy Plan 2023–2050

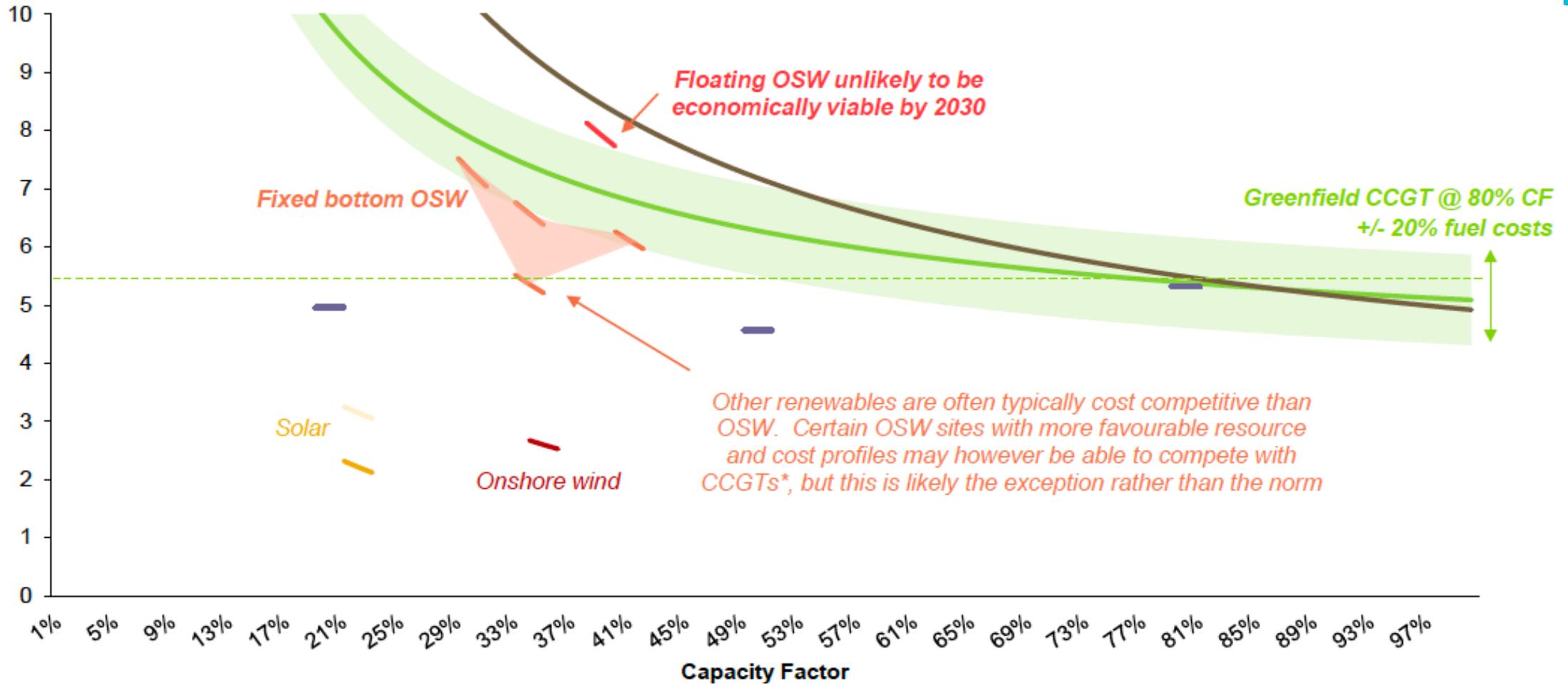
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Offshore wind screening curve in 2030

PhP/kWh (real)

New Capacity Additions – Screening Curve (2030)



- Greenfield CCGT (Luzon) (+/- 20% Fuel)
- Solar
- Floating Offshore Wind
- Solar+BESS (peaking day)

- Greenfield CCGT (Luzon)
- Floating Solar
- Solar+BESS (baseload)

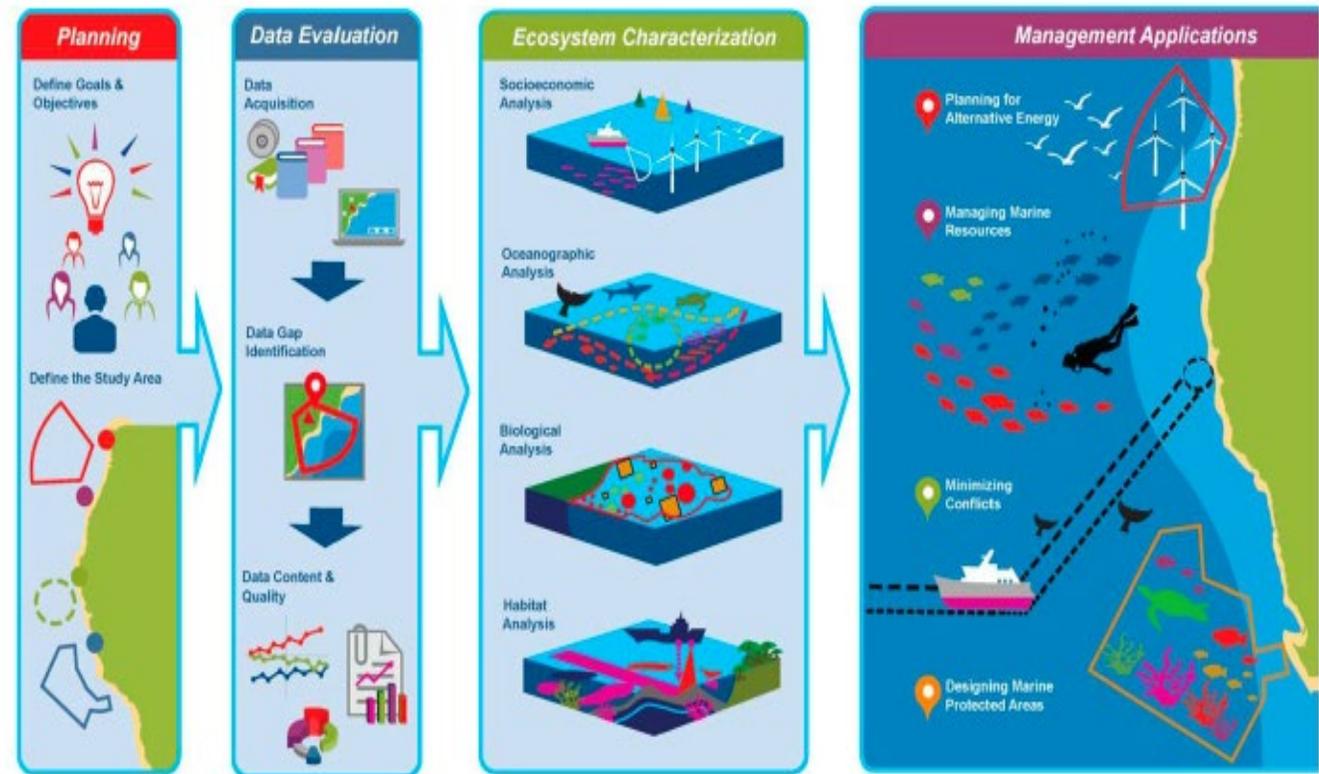
- Greenfield Supercritical Coal (Luzon)
- Onshore wind
- Solar+BESS (mid-merit)

Marine Spatial Planning (MSP)

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- A use of marine space, to balance competing needs for protection, economic use, and infrastructure.
- Offshore wind area be defined in the MSP for development and site protection.
- Cross-sector coordination across departments and local governments essential.
- MSP in the Philippines released in July 2025.

Marine spatial planning process



Offshore wind transmission build option

- **Developer Build.** Offshore wind investor until grid connection.
- **Third-Party Build.** An independent entity for offshore–onshore substation.
- **TSO Build.** Transco a mandated by from offshore substation.

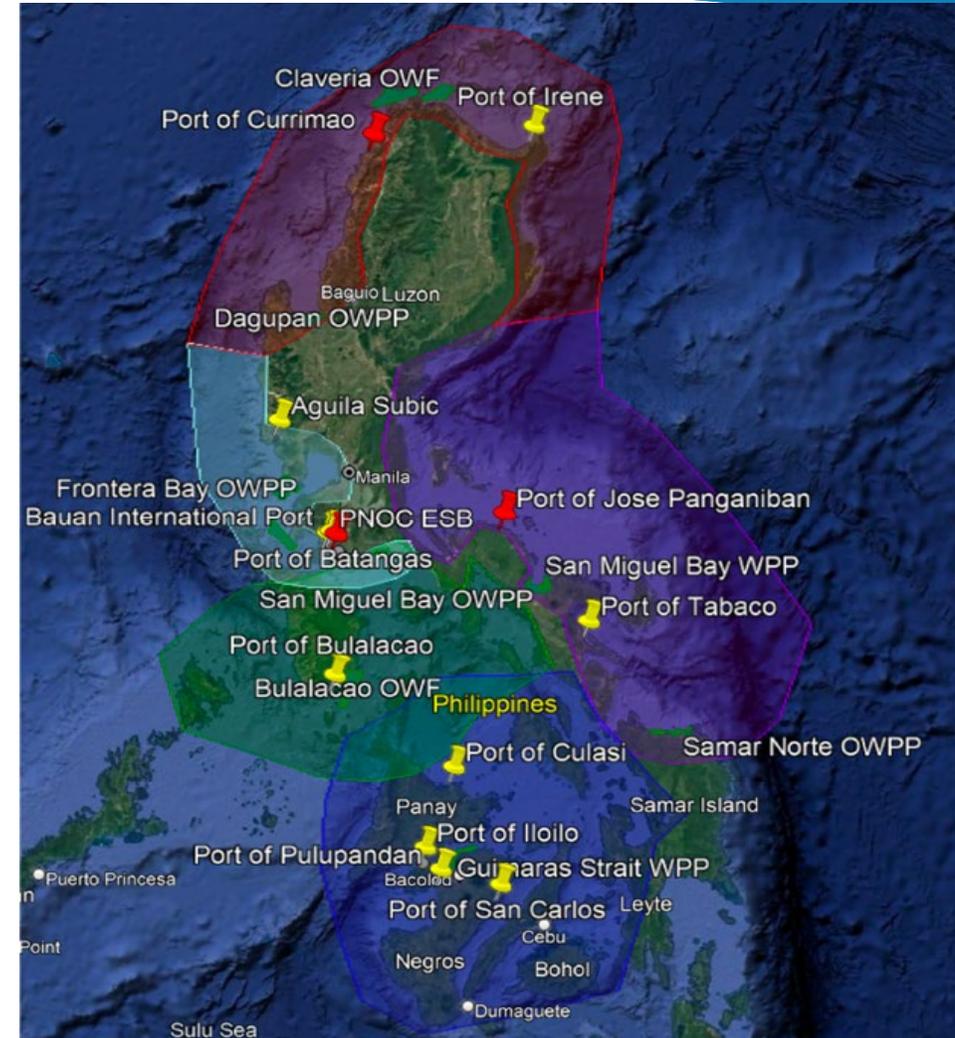


	Responsible body	
	OSW Developer	Third-party
Developer build	OSW Developer	
Third-party build	OSW Developer	Third-party
TSO build	OSW Developer	TSO

Offshore wind port development

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- Plan a port to serve the site within 200 km radius.
- Must be operational before construction begins.
- Factor 4 years of development at least.
- Need high bearing capacity to stand 20 tons/m².
- Cost ranges \$300-400 million per port.
- Government involvement essential unless multipurpose use anticipated.



ADB's Assistance Framework: The Philippines' Change Change Action Program

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Subprogram 1 2020–2022

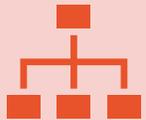
Subprogram 2 2022–2024

Subprogram 3 2024–2026

Scale down fossil fuels	<ul style="list-style-type: none"> ✓ Energy transition mechanism and moratorium on new coal 	<ul style="list-style-type: none"> • ETM financing framework 	<ul style="list-style-type: none"> • Coal fired power retirement and repurposing
Increasing renewables	<ul style="list-style-type: none"> ✓ Policies to support offshore wind and floating solar investment ✓ Green Energy Option Program to allow consumers to choose clean electricity 	<ul style="list-style-type: none"> • Long-term energy plan and electrification roadmap with enhanced targets for renewables* • Regulatory framework for environmentally sustainable offshore wind and floating solar or floating photovoltaics.** • Expanded Green Energy Auction Programs (GEAP).* 	<ul style="list-style-type: none"> • Enhanced regulations offshore wind and off-grid clean energy. • Expanded GEAP rounds to include offshore wind and floating solar • Geothermal de-risking
Strengthening grid	<ul style="list-style-type: none"> ✓ Issued initial policy to procure reserve capacity for renewable energy penetration into the grid 	<ul style="list-style-type: none"> • Regulatory framework to develop reserve capacity for renewable energy penetration 	<ul style="list-style-type: none"> • Smart and Green Grid Plan and associated regulations to expand transmission capacity.
Energy efficiency	<i>Covered under RA1</i>	<ul style="list-style-type: none"> • Long-term Energy Efficiency and Conservation plan, and regulations* 	<ul style="list-style-type: none"> • Strengthen regulations for energy efficiency.
Low carbon transport	<ul style="list-style-type: none"> ✓ Fuel efficiency and markets for electric vehicles 	<ul style="list-style-type: none"> • Standard for public e-bus system developed 	<ul style="list-style-type: none"> • Scaling up low-carbon transport

Suggestions to DMCs

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Strong inter-departmental and stakeholder coordination framework should be in place.



Government led wind measurement campaign is desirable to spot priority sea area at the onset of offshore wind development planning.



Wind measurement campaign results should be integrated with MSP and associated infrastructure planning.



Auction design and pricing should reflect market condition and address to the concerns among potential investors and banks.