

OFFSHORE WIND IN THE PHILIPPINES

A Path to Energy Security and Green Jobs

The World Bank Group's [Offshore Wind Development Program](#), jointly led by ESMAP and the IFC, has supported the Government of the Philippines since 2019 to establish offshore wind as a cornerstone of its national energy strategy.¹

The Philippines' Department of Energy (DOE) is determined to accelerate offshore wind development, with first turbines anticipated in its waters by 2028 following a competitive auction process. Offshore wind will contribute to reaching the country's target of 35 percent of renewable energy in its electricity generation mix by 2030. The country's offshore wind target has increased from 0 to as much as 50 GW by 2050.

The Offshore Wind program's team, consisting of World Bank Group staff and expert offshore wind advisors, act as connectors, data gatherers, analysts, and expert knowledge brokers, collaborating closely with policymakers, businesses, and local stakeholders in the Philippines to lay the groundwork for a long-term pipeline of bankable projects.

The Giant Potential of Offshore Wind in the Philippines

With over 7,000 islands, the Philippines has a rich maritime history and is a renowned seafaring nation. Large areas around the country's coast have feasibly extractable wind resources. Around 90 percent of the resource is found in waters deeper than 50 meters, which provides a compelling opportunity for floating offshore wind technology.

The Philippines faces growing energy demands but is currently heavily dependent on imported fossil fuels and coal-powered generation.

Offshore wind avoids land-use conflicts by utilizing marine areas, while also offering economic benefits such as regional development, job creation, industrial growth, infrastructure upgrades, and increased foreign investment.

The World Bank Group in Action in the Philippines

The World Bank Group's Offshore Wind Development Program, launched in 2019, has provided multifaceted technical assistance to the Philippines:

- **Foundational analysis** of the Philippines' offshore wind resource through the [Going Global](#) report (2019): This highlighted the Philippines' abundant offshore wind potential and identified it as a priority market among eight country case studies.² (ESMAP funded)
- Development of a comprehensive [Offshore Wind Roadmap for the Philippines](#)³ (2022): This roadmap was carried out with engagement and input from the Government of the Philippines and its relevant agencies, as well as local and global stakeholders. Its goal was to provide evidence to support decision-makers in establishing policy, regulations, processes, and infrastructure to enable successful growth of a new industry. (ESMAP funded)

“It is clear from this roadmap that offshore wind can play a major role in meeting our country's energy demand indigenously, while also accelerating decarbonization.”

ALFONSO G. CUSI Former Energy Secretary

- **Offshore Wind Study Tours:** Organized for energy officials from the Philippines to visit Germany, Denmark, and the Netherlands (2022), the Republic of Korea (2024), and Australia (2025) to learn lessons from offshore wind markets at different stages of maturity. (ESMAP funded)

“We must take advantage of all the best technology that is now available, especially in the areas of renewable energy. The technology on renewable energy is progressing rapidly. And many of these technologies are appropriate for the Philippines. We have already begun windmill power. For both offshore and onshore wind turbines, for example, the World Bank has calculated that there is the potential of 100+ gigawatts by the year of 2030.”

PRESIDENT FERDINAND R. MARCOS, JR. State of the Nation Address, July 2022

- **Assessments of wind resources and electrical transmission availability (2023):** These assessments identified strategic, priority areas for the development of offshore wind, focusing on areas with the most favorable resources and grid availability. (ESMAP funded)
- [Integrated Environmental & Social Sensitivity Mapping | Guidance for Early Offshore Wind Spatial Planning](#) (2024): This methodology helped inform the Philippines' Integrated Environmental & Social Sensitivity Mapping initiatives, including the Marine Spatial Plan (MSP) for offshore wind.

“The World Bank has supported us to set our vision for offshore wind. The roadmap paved the way for the Philippines to work towards our energy transition. We were able to identify the things we need to strengthen, such as marine spatial planning, resources, data, mapping out the permits, and assurances. It has to be a whole of government approach to provide a one-stop shop to the developers. We would like to thank ESMAP and the World Bank for introducing the Philippines to these innovative and new emerging technologies.”

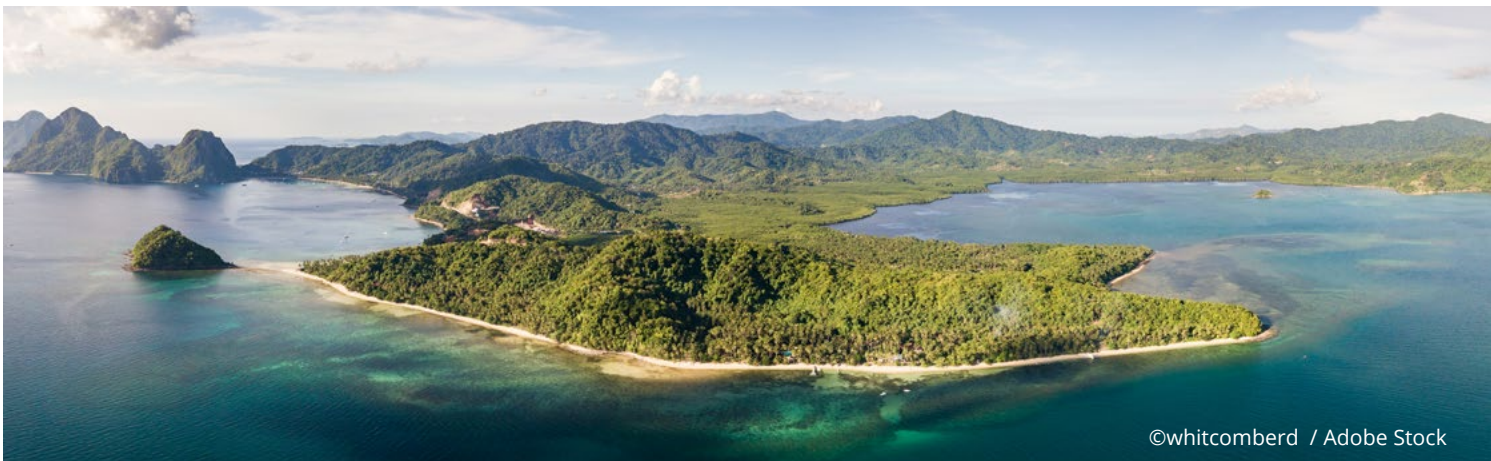
MYLENE CAPONGCOL Undersecretary, Philippines Department of Energy

- **Capacity building workshops** (Feb–Mar 2025): A series of workshops were held covering a wide range of topics, including auction design and commercial arrangements, clustering offshore wind farms, port and grid development, and supply chain. *(ESMAP Funded)*
- **Technical assistance to the Department of Energy** (Apr 2025–ongoing): This work, undertaken by the IFC with funding from the European Union Transition Fund, covers topics such as bankability and risk allocation in the Philippines’ first dedicated offshore wind Green Energy Auction (GEA-5), preparation of buffer zones and transmission cable corridors, assessment of local jobs and skills growth opportunities, and public sector capacity building, as well as embedding technical advisors at the Department of Energy. *(IFC/EU Funded)*

“It has been a huge advantage to have World Bank offshore wind experts based in the Department’s offices every month during 2025. Our staff have benefited from immediate access to technical advice and global experience. This guidance has enabled a rapid and flexible form of direct support and has been instrumental to help meet the Department’s timeline to launch the Philippines’ offshore wind sector.”

DR. ROWENA CRISTINA L. GUEVARA Undersecretary, Department of Energy of the Philippines

- **Technical assistance to the Energy Regulatory Commission** (May 2025 – ongoing): This work is helping the Commission prepare for the first dedicated offshore wind auction (GEA-5). This includes good practice advice in financial modeling to set a Green Energy Auction Reserve (GEAR) price—a ceiling tariff—for offshore wind. *(IFC/EU Funded with support from ESMAP Expert Advisors)*



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Results

1. Policy Framework Development

- **Department Circular⁴ No. DC2022-11-0034** (November 2022) amends Section 19 of the Implementing Rules and Regulations of Republic Act No. 9513, and removes nationality restrictions on the exploration, development, and utilization of renewable energy resources, including offshore wind. This major change allows international offshore wind developers to take full or controlling ownership in projects.
- **Executive Order⁵ No. 21 (s.2023)** establishes a high-level offshore wind policy framework, as directed by the President.
- **Department Circulars⁶ DC2023-05-0013 and DC2023-06-0020⁷** (April and June 2023, respectively), follows Executive Order 21 and provides detailed policies, particularly around permitting and inclusion of offshore wind into the Energy Virtual One-Stop Shop (EVOSS).
- More than **80 offshore wind service contracts** have been awarded to developers, supporting an estimated potential capacity of 70 GW.
- The first dedicated **offshore wind auction** (GEA-5) launched in November 2025⁸ with announcement of winning bidders anticipated in September 2026.⁹
- Public consultation on guidelines for the establishment of buffer zones and transmission cable corridors for offshore wind projects, undertaken in December 2025.¹⁰

2. Market Development

- **The GEA-5 auction aims to award 3,300 MW of** fixed-bottom offshore wind capacity targeted for 2028-30 delivery. The World Bank estimates that this would have the potential to generate about 10 TWh/year, equivalent to 8 percent of annual electricity consumption in the Philippines and could displace more than 6 million metric tons of CO₂ emissions per year.

“By prioritizing fixed-bottom offshore wind for GEA-5, we are investing in a technology that is ready to deliver. This allows us to set a strong and credible foundation for the country’s offshore wind sector, one that can deliver first power by 2028.”

RAPHAEL P.M. LOTILLA Former Energy Secretary

- Strong **private sector interest** from both local and international firms.
- **Twenty-five-year service contracts** with 25-year extension options.

3. Strategic Positioning

- Offshore wind is integrated into the country's **national renewable energy targets**: 35 percent of all electricity generated in 2030 will come from renewable energy sources by 2030, and 50 percent by 2040. The Philippine Energy Plan includes long-term targets for installed offshore wind capacity of between 19 GW and 50 GW by 2050 under low and high scenarios, respectively.
- Enhanced **energy security** through reduced fossil fuel dependence.¹¹

4. Energy Transition and Climate Resilience Development Policy Loans

- The Offshore Wind program informed a major World Bank Development Policy Loan, valued at **US\$800 million**, to support reforms in the Philippines to accelerate the energy transition, to increase the share of renewable energy in the energy mix, create more green jobs, and direct more investment to green activities and services. This is the first operation of a programmatic series of two development policy loans, with the second one at an advanced stage of preparation and subject to World Bank Board approval.

Potential Development Impact

- **Economic Benefits:** Regional development, job creation, industrial growth, infrastructure development, and increased foreign investment
- **Energy Security:** Reduced dependence on volatile, imported fossil fuels by transitioning to domestic renewable energy resources
- **Climate Impact:** Significant contribution to decarbonization goals while meeting growing electricity demand
- Public consultation on guidelines for the establishment of buffer zones and transmission cable corridors for offshore wind projects, undertaken in December 2025
- **Technology Leadership:** Potential role as a regional leader in floating offshore wind technology suitable for deep-water conditions

Lessons Learned

| Critical Success Factors | Ongoing Challenges |
|---|--|
| ✓ High-level political commitment through executive leadership | ① Transmission infrastructure development for remote offshore sites |
| ✓ Comprehensive stakeholder engagement across government agencies | ① Environmental and social impact management at scale |
| ✓ Technology-specific policy tools to support early market development | ① Local supply chain development and initial import dependence |
| ✓ Long-term embedded technical assistance for sustained capacity building | ① Lack of suitable port infrastructure for either fixed or floating wind |

Looking Forward

The Philippines case study demonstrates how targeted technical assistance from the World Bank Group can rapidly establish enabling conditions for emerging clean energy sectors. With first power delivery expected by 2028, the World Bank Group's Energy Sector Management Assistance Program (ESMAP) has successfully supported the government to lay the groundwork for a transformational offshore wind industry that addresses energy security, climate goals, and economic development simultaneously.



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Endnotes

- 1 ESMAP operates through IBRD/IDA regional energy units in the Philippines. The 'client-facing role' is with IBRD/IDA regional energy units while ESMAP provides financing and expertise.
- 2 [Going Global: Expanding Offshore Wind To Emerging Markets](#)
- 3 [Offshore Wind Roadmap for the Philippines](#)
- 4 <https://legacy.doe.gov.ph/laws-and-issuances/department-circular-no-dc2022-11-0034>
- 5 <https://legacy.doe.gov.ph/laws-and-issuances/executive-order-no-21-s-2023>
- 6 <https://legacy.doe.gov.ph/laws-and-issuances/department-circular-no-dc2023-05-0013>
- 7 <https://doe.gov.ph/site/remb/articles/399297--department-circular-no-dc2023-06-0020-1>
- 8 <https://doe.gov.ph/articles/3177409--doe-issues-notice-of-auction-and-terms-of-reference-for-gea-5-launches-philippines-first-offshore-wind-only-green-energy-auction>
- 9 <https://doe.gov.ph/articles/3177409--doe-issues-notice-of-auction-and-terms-of-reference-for-gea-5-launches-philippines-first-offshore-wind-only-green-energy-auction>
- 10 <https://doe.gov.ph/articles/3207436--public-consultation-on-the-draft-policy-prescribing-guidelines-on-the-establishment-of-buffer-zones-and-transmission-cable-corridors-for-offshore-wind-osw-projects>
- 11 <https://legacy.doe.gov.ph/pep>

The Energy Sector Management Assistance Program (ESMAP) is a partnership between the [World Bank Group](#) and over [20 partners](#) to help low- and middle-income countries reduce poverty and boost growth through sustainable energy solutions. ESMAP's analytical and advisory services are fully integrated within the World Bank Group's country financing and policy dialogue in the energy sector. Through the WBG, ESMAP works to accelerate the energy transition required to achieve [Sustainable Development Goal 7 \(SDG7\)](#), which ensures access to affordable, reliable, sustainable, and modern energy for all. It helps shape WBG strategies and programs to achieve the [WBG Climate Change Action Plan](#) targets. Learn more at: <https://www.esmap.org>.