

Confidence and bankability in the Philippines How Triconti is confidently conducting accurate WRA campaigns with WindCube® wind lidar



The client:

Triconti ECC
Renewables Corporation

Vaisala provided:

WindCube vertical
profiling lidar



Wind power is taking off in the Philippines, and Triconti ECC Renewables Corporation is at the forefront of its progress. Triconti is dedicated to providing clean power and energy resiliency to the island nation.

Triconti is one of the early innovators in the Philippines to use wind lidar for Wind Resource Assessments (WRA), where the technology plays a crucial role.

The challenge: Protected area with complex logistics

Just off the coast of Corregidor Island in Manila Bay lies Triconti's newest offshore wind farm project, Frontera Bay. The initial phase aims to achieve a target capacity of 450-600 MW.

WRA campaigns are crucial in the early stages of wind farm development. Accurate assessment of the wind resource potential largely determines the project's viability and profitability, and WRA campaigns provide vital wind data that guides decisions in site selection, turbine placement, project design and financial forecasting.

As Triconti evaluated the technology that would suit their wind measurement needs best, they considered geography, timing and much more. They also recognized the solution.

Paul Mores, Senior Project Development Officer at Triconti, said, "In Phase 1 of the Frontera Bay project development, we encountered several challenges that led us to a lidar solution: limited space for installation, availability of traditional meteorological mast, permitting constraints in the protected area,

manpower requirements, the logistical complexities of going to the island, and the duration of installation."

Wind lidar has every advantage over met masts: It provides highly accurate wind measurements for WRA campaigns, is portable and can be repurposed, requires far less permitting and construction time, and the quick and easy setup gives Triconti the flexible timeline they need.

The solution: Advanced technology, simple and safe installation

Triconti chose a WindCube® vertical profiling lidar for their Frontera Bay project, and installed the device on the shore of Corregidor Island to conduct a WRA campaign for an offshore project.

Triconti was pleased with the installation process. Mr. Mores said, "The installation of the WindCube

lidar is very easy and safe and has a low risk of safety hazard. The device's lightweight nature and mobile design contribute to its ease of installation. The absence of long and heavy structures of a met mast eliminates potential safety hazards associated with traditional installation. Overall, WindCube offers a safer, more cost-effective and simpler installation experience."

Triconti is using WindCube to collect early-stage wind data that they can use to improve WRA accuracy for more precise energy production estimates in the area where they plan to install turbines.

**The benefits:
Bankability, collaboration,
confidence**

WindCube is enhancing Triconti's ability to gather accurate wind data, which greatly aids in the modeling of wind farms. "This information is essential for optimizing project design and turbine placement, and for evaluating the feasibility of potential wind farm sites," said Mr. Mores.

WindCube data is playing a crucial role in demonstrating the viability of the wind resource to Triconti's third-party investors and others, where it has been well received. Mr. Mores said, "It has served as a reliable source of early-stage information for our consultants,

stakeholders and investors. The precision of the lidar measurement has boosted the confidence in the project and has facilitated smooth collaboration with all parties involved."

Triconti is also pleased with how the accuracy of WindCube has led to greater bankability. "The lidar data significantly enhanced the bankability of our project. By leveraging the precise measurement in the area provided by WindCube, we were able to reduce the uncertainty and risk associated with WRA for greater confidence with both investors and consultants," said Mr. Mores.

The organization is fully confident in the future of wind energy in the Philippines, bolstered by highly accurate and reliable wind measurements.

"We're exclusively using WindCube for early-stage wind data campaigns. It improves the accuracy in wind resource assessments for more precise energy production estimates and enhanced project bankability for our offshore wind farm project — all with plug-and-play convenience."

Paul Mores
Senior Project Development
Officer, Triconti ECC
Renewables Corporation



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