



JWA Selected for Two Research Activities in NEDO’s “Research Project for Regional Integrated Development of Offshore Wind Power Generation”

The Japan Weather Association (JWA) has been selected for two research items in the “Research Project for Regional Integrated Development of Offshore Wind Power Generation” (hereinafter, “this project”) publicly advertised by the New Energy and Industrial Technology Development Organization (NEDO).

[Selected research items]

- (1) Research item (A): Surveys of wind conditions and required surveys for Environmental Impact Assessments (EIA) in an area of a wind power facility is expected to be built (hereinafter, “Research A”)
- (2) Research item (B): Research on orientation toward ocean area development that is cooperated with the regional stakeholders (hereinafter, “Research B”)

[Research overview]

In this NEDO project to promote the implementation of offshore wind power generation, which is central to making renewable energies the main source of power, JWA will conduct Research A and B. Research A will be conducted jointly with the OYO Corporation. Research B will be conducted independently by JWA.

In this research aimed at achieving carbon neutrality by 2050, JWA will be responsible for implementing the necessary surveys regarding the suitability of setting up a wind power facility in this area of the ocean and to compile all information and learnings during the entire project. In addition, by investigating the applicability to Japan of the “Central Method”^(Note), which is currently being implemented overseas, JWA will aim for ocean area development in collaboration with NEDO, relevant government agencies, experts, and region to promote the introduction of offshore wind power generation.

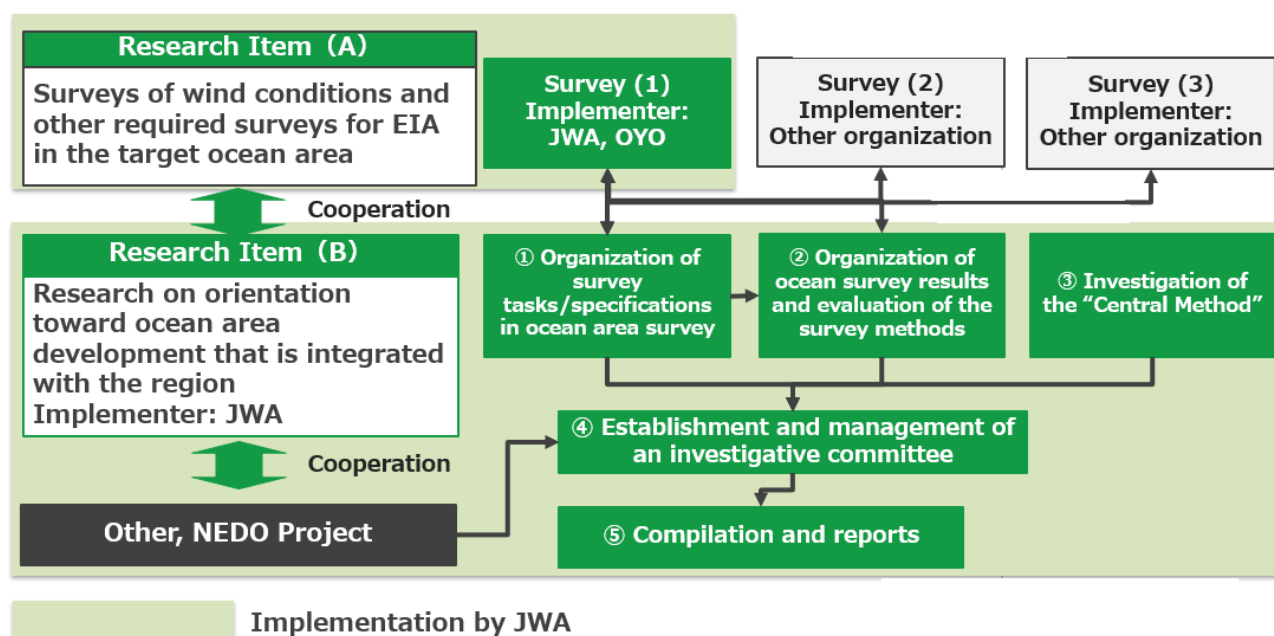


Figure 1 Project implementation structure and research details

Note: The “Central Method” for offshore wind power is a structure in which the national government, etc. specify introduction plans and lead environmental assessments and coordination of sites for grid connections, to reduce the risks for operators.

[Research details]

Research item (A): Surveys of wind conditions and required surveys for EIA in an area of the ocean where a wind power facility is expected to be built

In Research A, the following surveys will be conducted in three undeveloped ocean areas, and the survey results will be organized such that they can be used when the offshore wind power generation facilities are introduced in these ocean areas:

- (1) Surveys of wind conditions in the target ocean area
- (2) Required surveys for EIA in the target ocean area
- (3) Fishing industry survey
- (4) Preliminary calculation of potential for introducing an offshore wind power generation facility

The targeted undeveloped ocean areas will be areas that do not correspond to “promotion zones” or “promising zones” in the “Act on Promoting the Utilization of Sea Areas for the Development of Marine Renewable Energy Power Generation Facilities.” They will be expected to have the potential for introducing offshore wind power generation facilities. One of the three undeveloped ocean areas will be surveyed jointly by JWA and OYO.

This research will contribute to the promotion of regional integrated development of offshore wind power generation in these ocean areas.



Wind conditions survey
(Wind condition measurements using scanning LiDAR)



Seafloor survey
(Installation of boring derrick by a crane ship)



Meteorological and oceanographic surveys
(Photograph shows oceanographic observation)



Research item (B): Research on orientation toward ocean area development that is cooperated with the regional stakeholders

In Research B, the basic survey specifications for surveying three ocean areas, including the ocean area to be surveyed by JWA, will be organized, and the survey results will be compiled. In addition, previous examples of the “central method” for offshore wind power implemented in Europe will be investigated, and the applicability of this method to Japan will be evaluated. These results will be compiled and the “orientation toward ocean area development that is integrated with the region” will be considered.

- (1) Organization of survey tasks/specifications in ocean area survey (Research A)
- (2) Organization of ocean survey results and evaluation of the survey methods
- (3) Investigation of the “central method”
- (4) Establishment and management of an investigative committee
- (5) Compilation and report writing

[Research period]

May 27, 2021–March 2022 (estimated)

Details regarding project selection: https://www.nedo.go.jp/koubo/FF3_100308.html

JWA has contributed to the introduction of offshore wind power generation from various perspectives. We are experts in the acquisition of accurate and reliable data. We conduct many measurements of wind condition using a variety of equipment including wind masts and Doppler LiDARs for measuring vertical profiles of upper-air wind, and scanning Doppler LiDARs targeting offshore wind. JWA has developed BuoyLidar, the world’s first motion-stabilized floating LiDAR, and is developing simulation technologies for offshore wind conditions. In addition to wind conditions, JWA has extensive experience in the measurement and analysis of meteorological/oceanographic conditions required for the basic design of offshore wind power generation. Furthermore, we are building a structure in cooperation with OYO Corporation, a top-ranking Japanese company that has undertaken numerous seafloor surveys.

JWA has the best track record for environmental assessment of offshore wind power projects in Japan. We have supported the introduction of projects, while preserving the environment and paying attention to local people’s understanding and acceptance of the project.

In addition to these contributions to regions and projects, JWA has participated in many national projects, including NEDO projects, and has helped to develop advanced technologies and establish methods for smooth introduction.

JWA will continue to help expand the introduction of renewable energy by participating in and supporting a wide range of fields related to offshore wind power generation projects.

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