

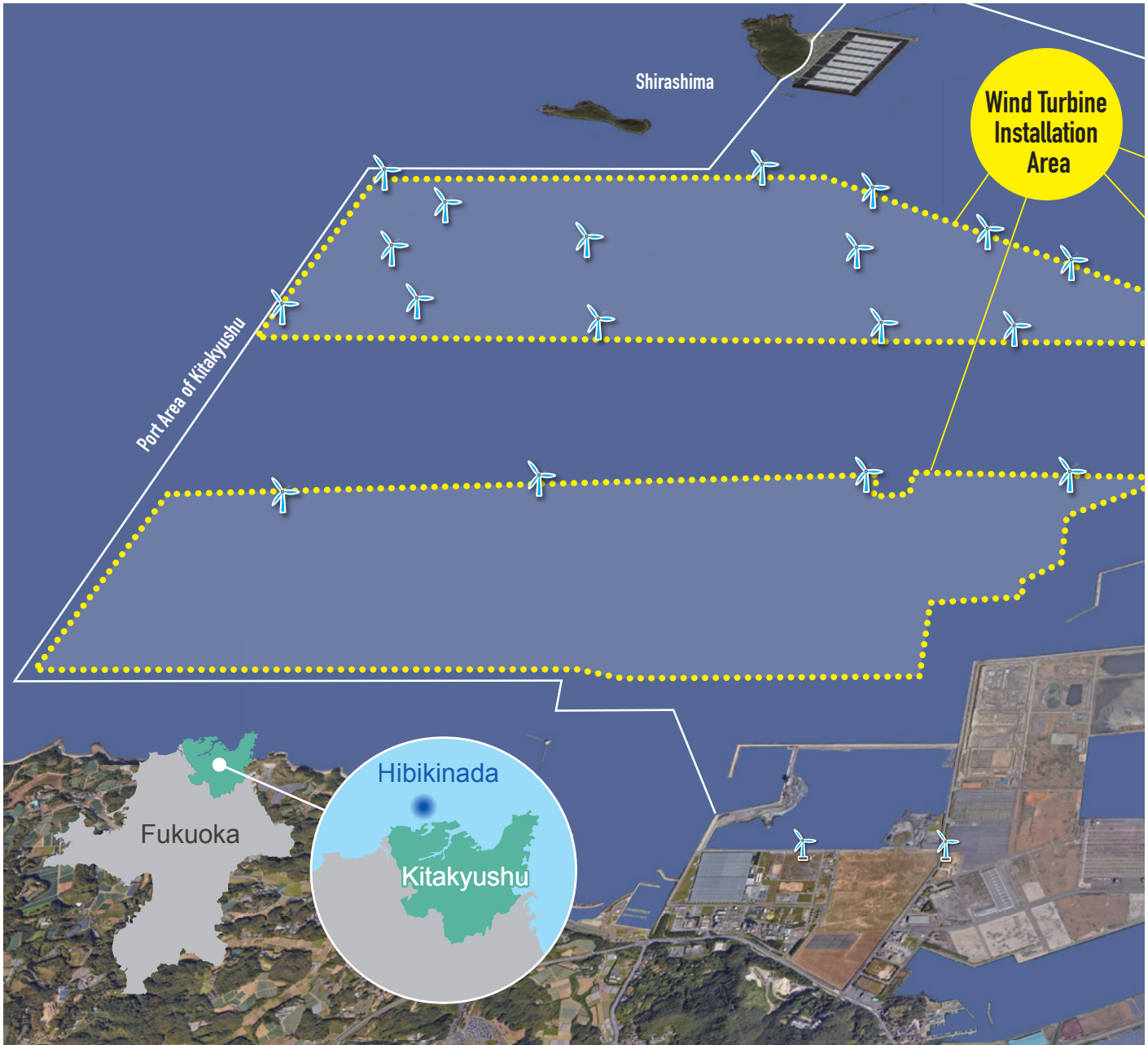


# HIBIKI WIND ENERGY

~Kitakyushu Hibikinada Offshore Wind Farm Project~



We are proactively working towards the further development of Kitakyushu City and the “Collaborative



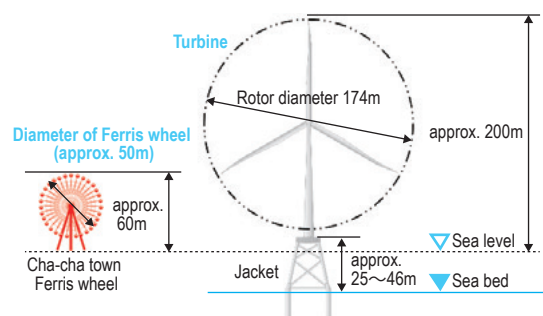
## Project Overview

The Kitakyushu Hibikinada Offshore Wind Farm is located in the Hibikinada Sea off the coast of Wakamatsu-ku, Kitakyushu, within an area of 1-10km from north to south and 11 km from east to west. The wind farm consists of 25 large wind turbines with the unit capacity of 9,600 kW and its maximum total output is 220,000 kW with operating over 20 years. The Kitakyushu Hibikinada Offshore Wind Farm will be the largest offshore wind farm in Japan upon its completion in terms of the generating output power scale. It is expected to annually generate 500 million kWh of electricity, which is enough to supply power for 170,000 households. The amount of this electric generations of the farm is equivalent to 40% of the households in Kitakyushu City. The wind farm construction is scheduled to be completed within FY2025.

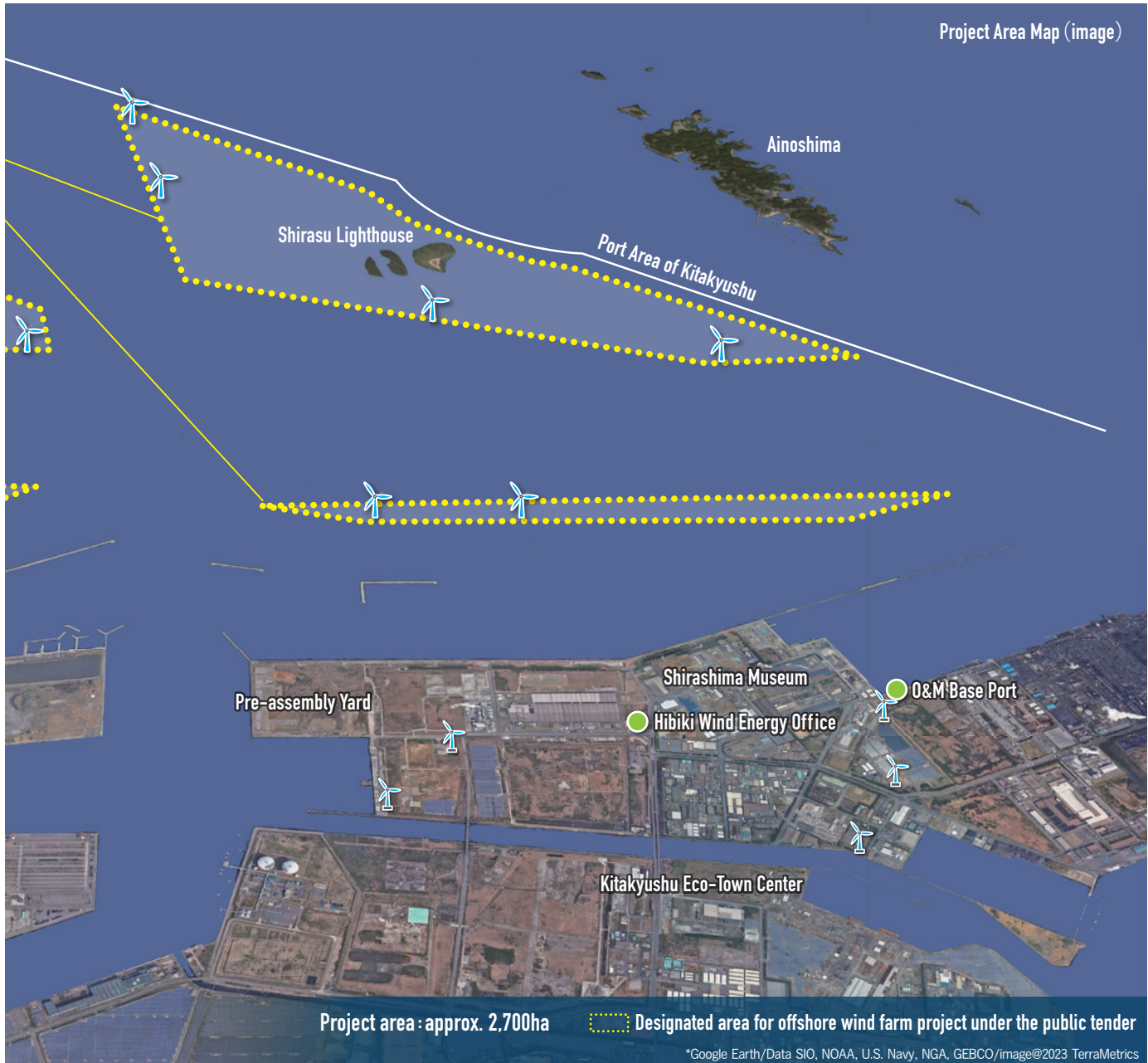
### Basic Data

Description	Contents	
Name of Farm	Kitakyushu Hibikinada Offshore Wind Farm	
Project Area / Water Depth	Approx.2,700ha / Approx.8~30m	
Maximum Total Output	220,000 kW	
WTG	Unit Capacity × No.of WTGs	9,600kW×25
	Rotor Diameter	174m
	Height (Tip Top)	Approx.200m above sea-level
	Type of Foundation	Jacket Type (Fixed Bottom)

### Size of wind turbine (image)



## Development of the Offshore Wind Farm with the Local Community and Stakeholders”.

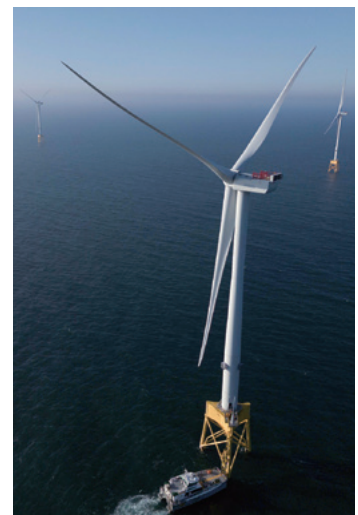


### Development History

A consortium, consisting of the current five shareholders of Hibiki Wind Energy Co., Ltd., was selected as the developer and operator for the Kitakyushu Hibikinada Offshore Wind Farm Project by Kitakyushu City through a public tender process in February 2017. Then, Hibiki Wind Energy Co., Ltd. was formally established in April soon after the determination and the company has started to conduct the wind resource assessment, site investigations, the environmental impact assessments and other studies. Based on those results, we have deeply studied the project plan, including the detailed design and construction work methods, and have completed various screening process and permit procedures, including Wind Farm Certification, with the construction work commenced on 13 March 2023.



Groundbreaking Ceremony  
 Mr. Kazuhisa Takeuchi, Mayor of Kitakyushu City (Left)  
 Mr. Yutaka Mizumachi, President of Hibiki Wind Energy (Right)



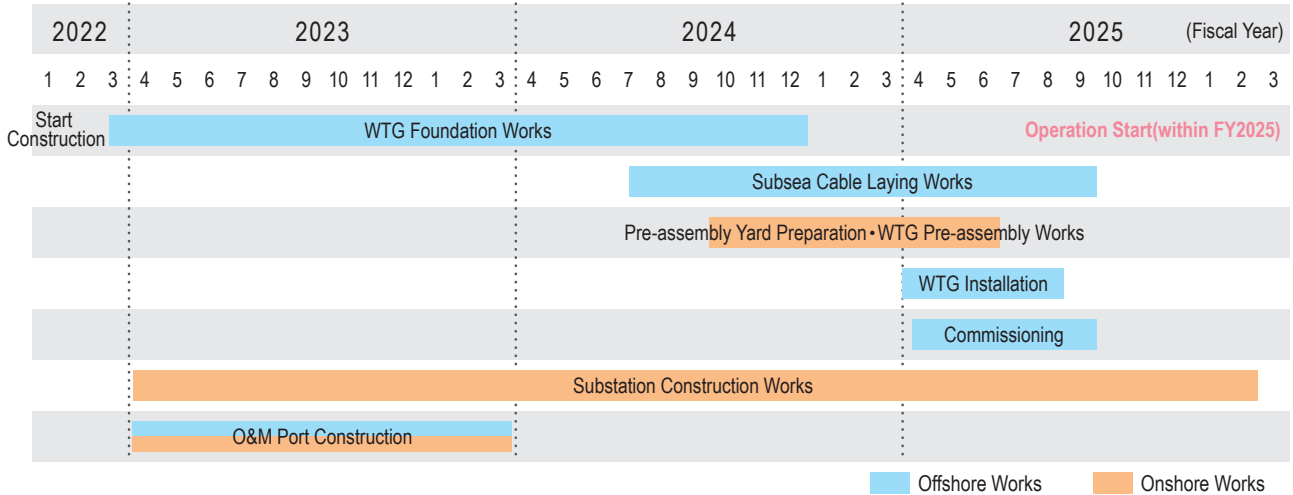
\*Photo courtesy of Vestas Wind Systems A/S

WTG Image

## Construction Schedule

Construction works at site have been started in March 2023, followed by offshore works for WTG Foundations, Submarine Cables and WTG Installations, in that order, with the operation scheduled to commence in FY2025. In addition to offshore construction works, WTG Pre-assembly works and Substation construction works will be carried out onshore.

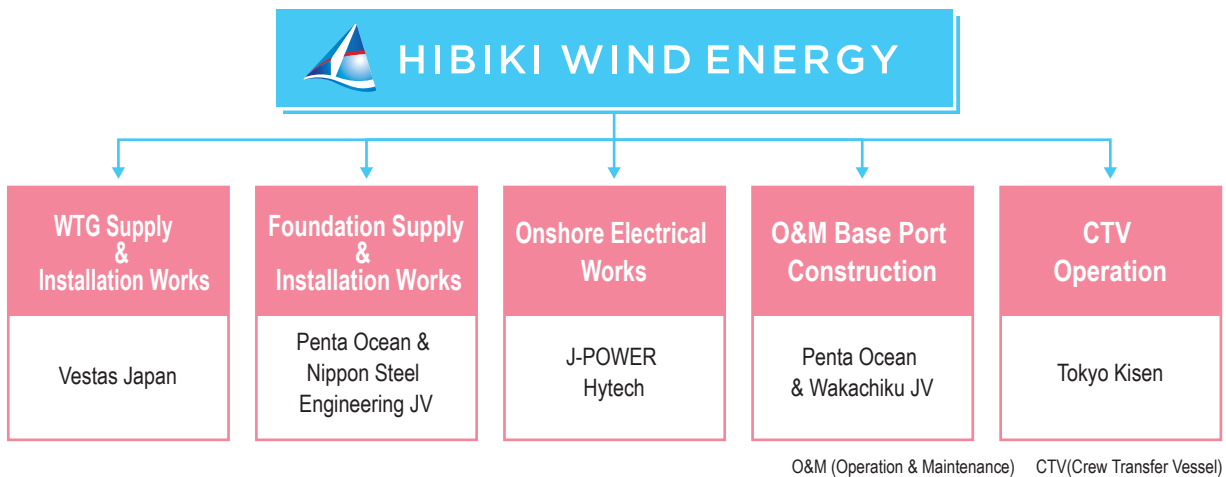
※The diagram below is a planned schedule as of June 2023, subject to change due to future construction progress and other factors.



## Construction Scheme

Project will be carried out jointly by Hibiki Wind Energy Co., Ltd. and the construction companies in charge of each responsible fields.

The construction work will be carried out with Safety as the first priority, leading the project to be familiarized for the local community.

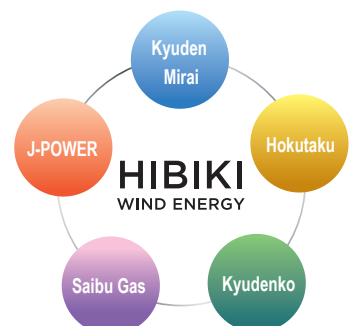


## About Hibiki Wind Energy

Hibiki Wind Energy Co., Ltd. is a developing and operating company comprising five shareholding companies: Kyuden Mirai Energy Co., Inc., Electric Power Development Co., Ltd. (J-Power), Hokutaku Co., Ltd., Saibu Gas Co., Ltd. and Kyudenko Corporation. We develop, operate and maintain the wind farm towards the “Collaborative Development of the Offshore Wind Farm with the Local Community and Stakeholders”.

### Shareholders and Composition Ratio

30% (Kyuden Mirai Energy Co., Inc.), 40% (Electric Power Development Co., Ltd.), 10% (Hokutaku Co., Ltd.), 10% (Saibu Gas Co., Ltd.), 10% (Kyudenko Corporation)





## Outline of Construction Activities

### 1. Foundation Installation

Foundations are installed with large-type working vessels. Steel piles are installed into the seabed ground by pile-driving vessel or SEP vessel, and following that the jacket foundations, fabricated at onshore factory, are transported offshore by a hoist vessel (floating crane vessel) for installation at site.

### 2. Subsea Cable Laying

Specialized work vessels for cable laying are used to install subsea cables.

### 3. WTG Installation

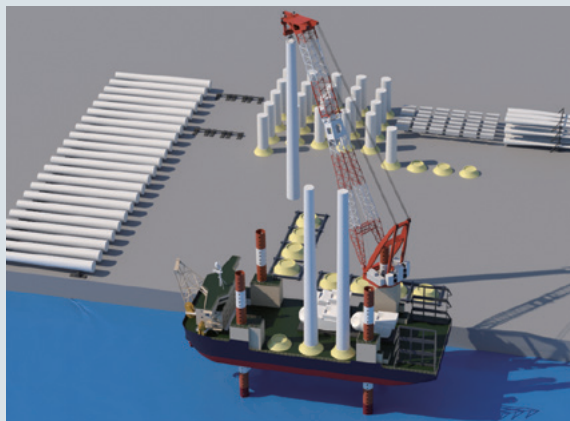
After the completion of pre-assembly of the towers and other main components at the Pre-assembly yard, the WTG components are transported offshore by SEP vessel and then the towers, nacelles and wind turbines are installed on each foundation.



①Pile Installation (image)



②Jacket Installation (image)



③WTG Component Loadout (image)



④WTG Installation (image)

### 4. Substation Construction (Onshore works)

Substations and other equipment are installed which are utilized to transmit the electricity generated to the power grid of the Kyushu Electric Power Transmission and Distribution Co., Inc.

### 5. O&M Base Port Construction Works

After the commencement of the operation of the wind farm, inspections and repair works of the offshore wind farm equipment will be carried out with CTV (Crew Transfer Vessel).

An O&M base port (maintenance base port) will be constructed near the wind farm as a base site for CTVs.

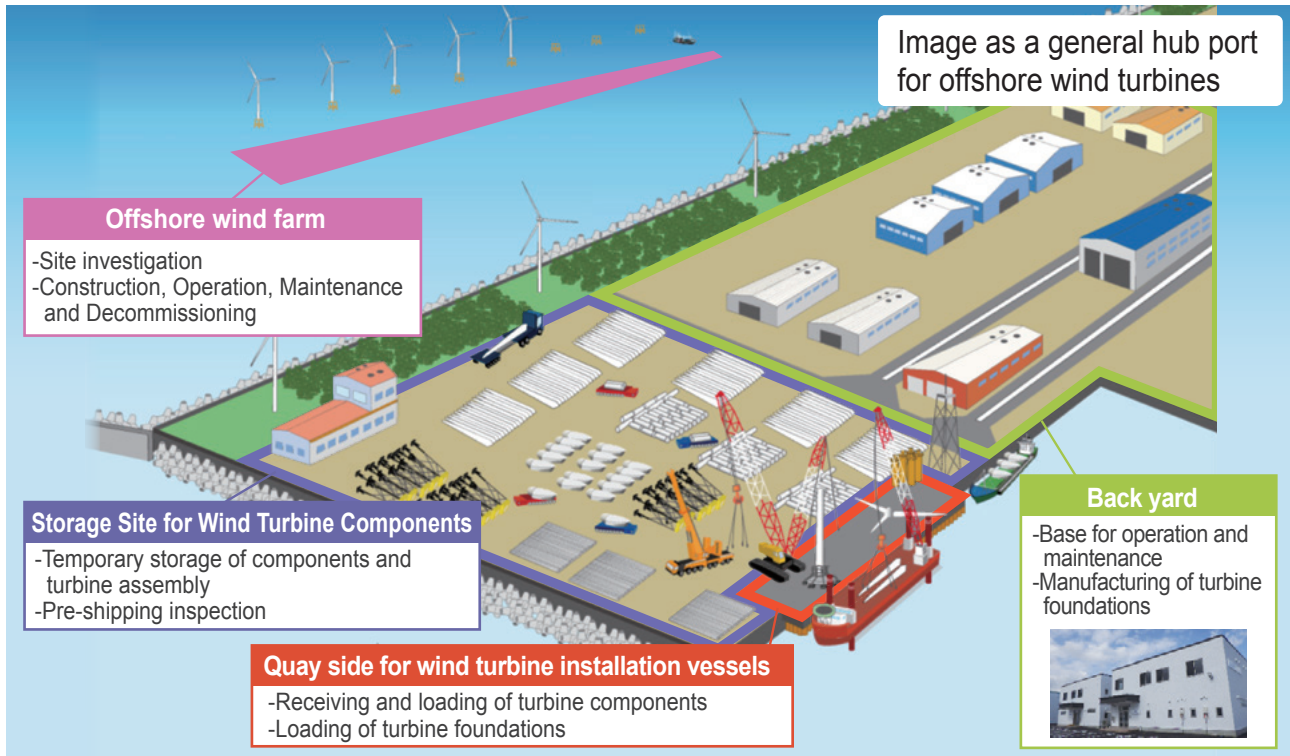
**SEP  
(Jack-up)  
Vessel**

SEP (Self Elevating Platform) vessels are workable barges with four legs that land on the seabed in a stable position. These specialized vessels are indispensable for offshore wind farm construction.



## Hibikinada could be a world-leading wind power industrial town

The constant flow of persons and commodities for offshore wind business will be created through logistic activities of wind turbine and its component at the based port facilities developed by the Government and the Kitakyushu City.



Source of information: "Guidebook for Green Energy Port Hibiki" published by the Kitakyushu City with some modification and addition made by our company

## Hibiki Wind Energy Initiatives for co-creation and co-prosperity with local communities.

We are working on the wind power business co-creation with local proactive companies to develop the Hibikinada area toward a hub place for Japan's offshore wind power in the future.

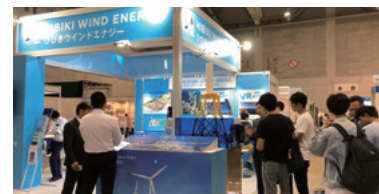
With a view to securing human resources for the offshore wind industry, we also actively cooperate with local educational institutions and organize seminars for citizens.

### Communication activities to local businesses / local industry

- Exhibition and PR at Ecotechno, a leading wind industry seminar in Kitakyushu
- Local businesses consultations (matching with manufacturers, etc.)
- Communication with fishermen

### Public relationship with citizens

- Organizing offshore wind farm seminars
- Briefing sessions for citizens on offshore wind farm projects



Exhibition at Ecotechno

## Our Missions for Tomorrow

Offshore wind power is an indispensable renewable energy source due to its great potential for achieving Carbon Neutral by 2050. When completed, this wind farm will become the largest offshore wind farm in Japan, with attracting a great attention from the public and also making a significant contribution to the Green Energy Port Hibiki project promoted by Kitakyushu City. Through Hibikinada, we will create a new landscape of offshore wind farm as a new challenge to carbon neutral and also as a new initiative for regional friendships.



**Hibiki Wind Energy Co., Ltd.**

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