

# Green Energy Port HIBIKI

A Wind Energy Industry Hub in Japan

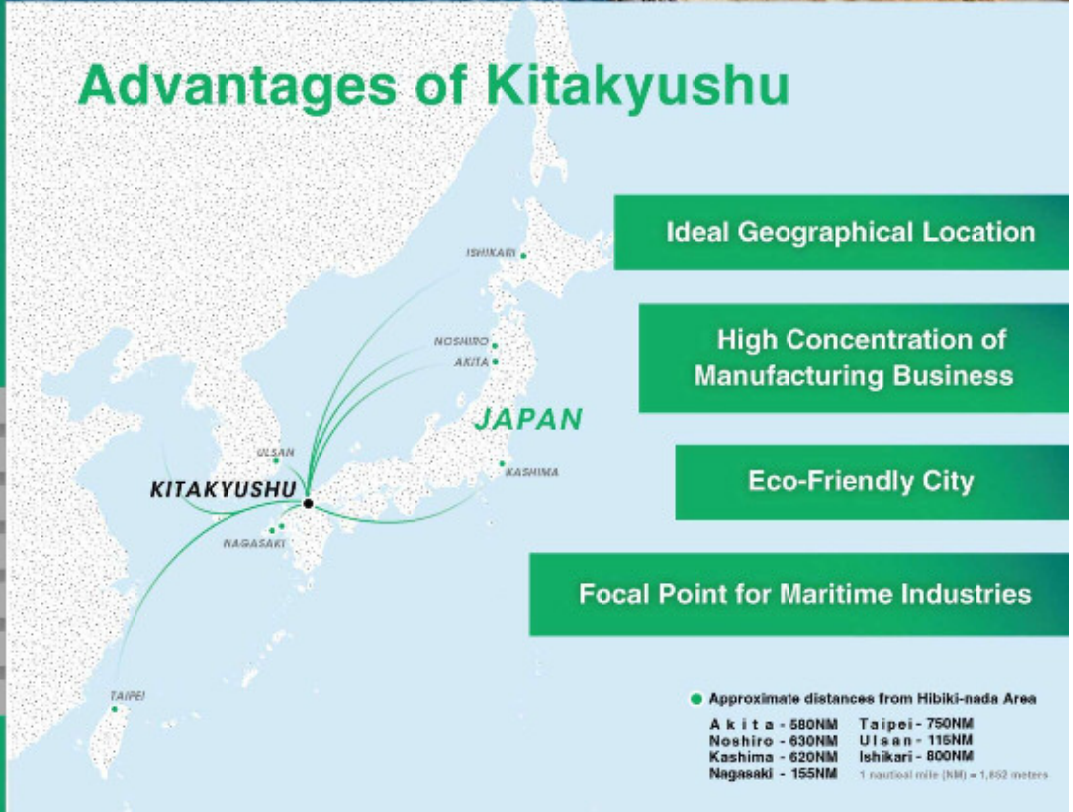


Offshore wind power generation is anticipated to be a major source of renewable energy. The government has clearly stated its introduction goals and at the same time advocated technological development support for floating systems, which are considered the next-generation technology as a basic strategy to strengthen the industrial competitiveness of offshore wind power (2020). Additionally, it was specified that legislation would be developed to expand the location of offshore wind farms to the Exclusive Economic Zone (EEZ) in the Basic Plan on Ocean Policy, which is currently limited to territorial waters (2023).

Meanwhile, Kitakyushu City has been working on the "Green Energy Port Hibiki" project aiming to create a "comprehensive base for wind-power generation related industries" that will provide a variety of services from Kitakyushu City to the rest of Japan and East Asia. We hope to contribute to the development of regional economies and the growth of green innovation in Japan with the nation's trends as a strong tailwind.



## Advantages of Kitakyushu



# 1 What is the Project?

The purpose of the project is to form and develop the Wind Energy Industry Hub for the wind energy-related industry.

## About the GEPH

About the Green Energy Port HIBIKI Project

# 2 What is the Purpose?

- The project aims to grow the economy of Kitakyushu and create job opportunities
- The creation of the Wind Energy Industry Hub will back the development of wind energy in Japan
- With backing wind energy development, we will contribute to a carbon free society

# 3 What is the "Wind Energy Industry Hub" ?

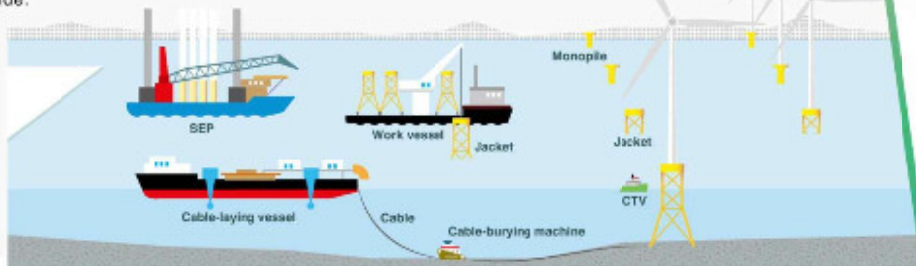
The Hub has the following 4 functions in one place

- [ **Logistical Base Function** ] Function as a logistics base for wind turbines, their parts, and raw materials
- [ **Manufacturing Industry Base Function** ] Function as a manufacturing base for wind turbine components, and wind turbine foundation components
- [ **Offloading and Construction Function** ] Function as a final base for offloading wind turbines to offshore wind turbine facility locations
- [ **O&M Base Function** ] Function as a base to support maintenance and management of offshore wind farms

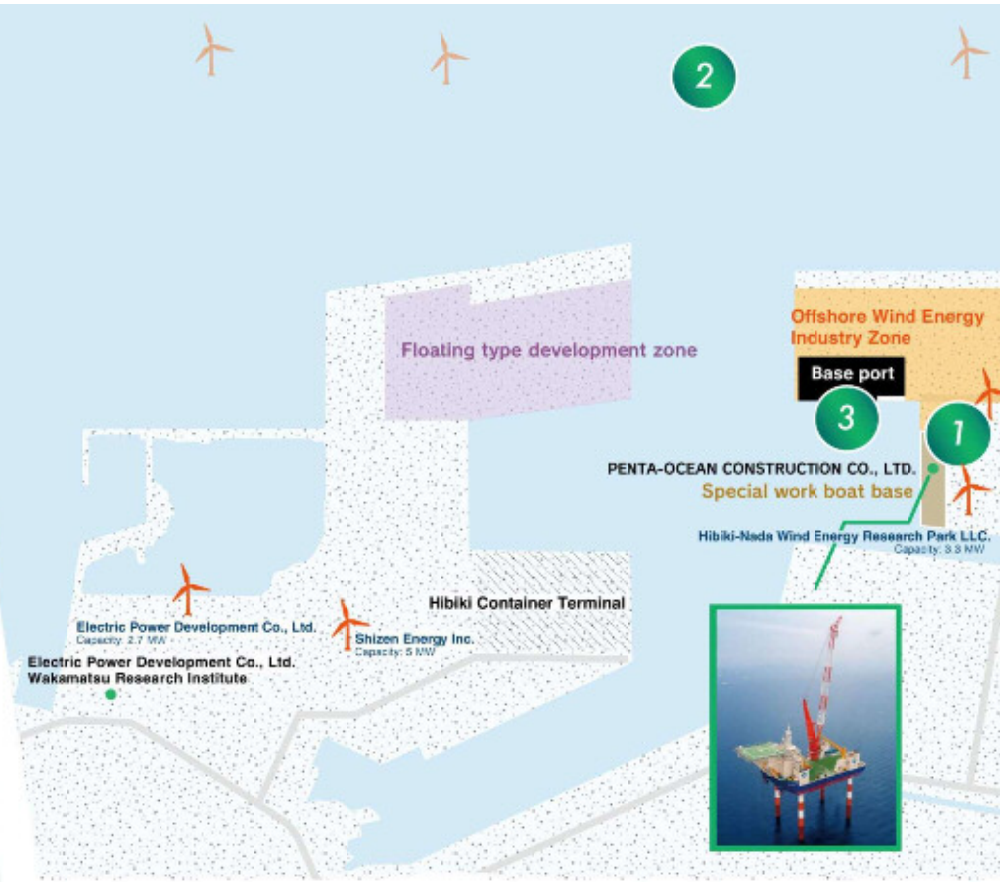


# 4 What are Merits?

The comprehensive hub will serve as an optimal business center for providing a wide variety of services for wind farms in Japan and throughout the world. It will bring about a synergistic effect by concentrating the industry required for wind energy generation, including factories, warehouses, shipping, and heavy equipment, all centered around a reinforced quay (base port) capable of handling heavy equipment such as wind turbines. This is expected to strengthen the business of the companies located in the Hibiki-nada Area and to secure global competitiveness for the products and services they provide.



2



1



2



A testing and research zone was established in the Hibiki-nada Area to support the establishment of the Wind Energy Industry Hub, and submissions of corporate proposals that would attract the industry were called for. As a result, in addition to an onshore demonstration experimental facility for offshore wind turbines being established, a leading wind turbine O&M company Hokutaku Co.,Ltd., entered Kitakyushu City.

There were no full-scale offshore wind farms installed yet in Japan when the Green Energy Port HIBIKI Project began. Accordingly, with the partial revision of the Port and Harbor Act in 2016, the first full-scale offshore windfarm in Japan was brought to the Port of Kitakyushu to stimulate the domestic market and boost investment from the industry to the Hibiki-nada Area. Construction work began in March 2023 and preparations are underway for the start of operations in 2025.

Facility Wind Turbines: Vestas (9.6MW) Number of units: 25

# Wind Energy from Hibiki-nada Area

## GREEN ENERGY PORT HIBIKI



Shirashima Museum  
(Shirashima Oil Staging Terminal)

Maintenance Base Port  
(CTV Base Port)

thyssenkrupp  
rothe erde Japan Co., Ltd.  
Kyushu Plant

Bridgestone Corp.  
Kitakyushu Plant

Hokutaku Co., Ltd.

Human Resource Development Base



Kitakyushu  
Eco Town Center

Nippon  
Steel Engineering Co., Ltd.  
(Nippon Steel Steel Structure Co., Ltd.)

Saibu Gas Co., Ltd.  
Capacity: 2 MW

Hokutaku Co., Ltd.  
Capacity: 2 MW



Provided by Nippon Steel Engineering Co., Ltd.

# Project Phases

Three phases and more

## ACT I

Since its launch in FY2011, the GEPH project has been moving forward through the following phases.

1

### 2011~ [ Testing and Research Zone ]

Mar.2013 Called for proposal tender for proving test of wind turbine and for forming the industry cluster. Achieved wind turbine demonstration tests, O&M base, and training facility establishment, etc.

2

### 2016~ [ First-ever full-scale offshore Wind Farm in Japan ]

Aug.2016 Called for proposal tender for the offshore wind farm with a view to drive demand for offshore wind farms in Japan and boost to form the Wind Energy Industry Hub in Hibiki-nada Area. Selected the Kitakyushu Hibiki-nada Offshore Wind Farm Plan (tentative name).  
Mar.2023 Construction to start  
FY2025 Operation to start

3

### 2017~ [ Wind Energy Industry Hub (Forming) ]

Construction of the Base Port and the Offshore Wind Industry Zone  
Port sales of the Base Port for offshore wind farm projects in the West Japan region  
Promotion of investments from wind energy business and operation bases for work vessels

## ACT II

### 2023~2030 [ Formation of next-generation comprehensive base ]

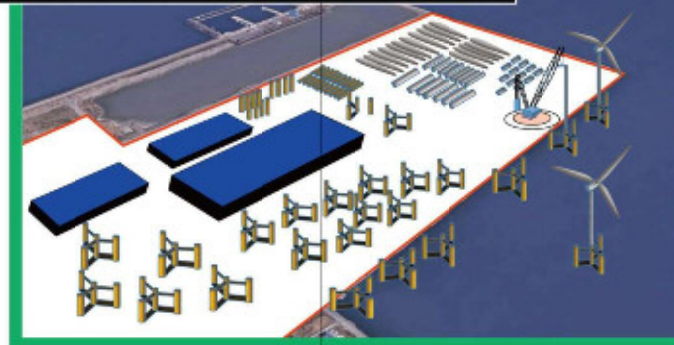
Support for [Floating-type]  
Support for super-large sized wind turbines  
Formation of advanced O&M bases and human resource development  
Development of turbine recycling business

3

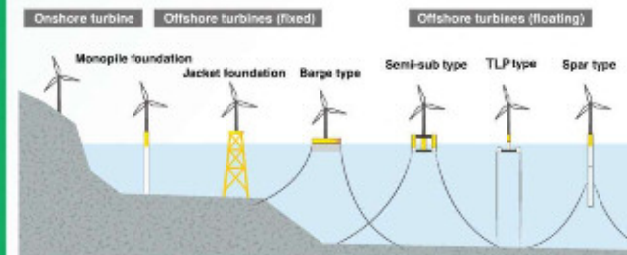


An industrial park will be allocated around the base port for the construction of offshore wind farms, and various industries will be attracted to form Wind Energy Industry Hub, including wind energy-related factories, warehouses, shipping, and heavy equipment.

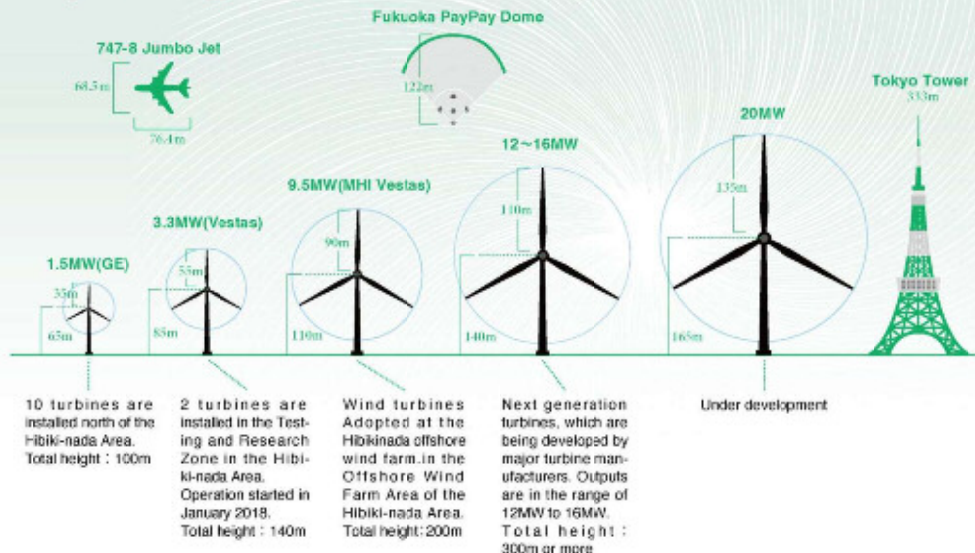
## ACT II ( Image of floating base )



Today, the majority of offshore wind turbines are installed on the sea floor with fixed foundations. However, expectations are rising for "floating" foundations that are designed to float on the sea surface, allowing installation over areas of deeper sea water. Vigorous efforts are taking place for the commercialization of these floating turbines, and the Wind Energy Industry Hub in Kitakyushu City also work to support the technology accordingly.



# Upsizing of Wind Turbines



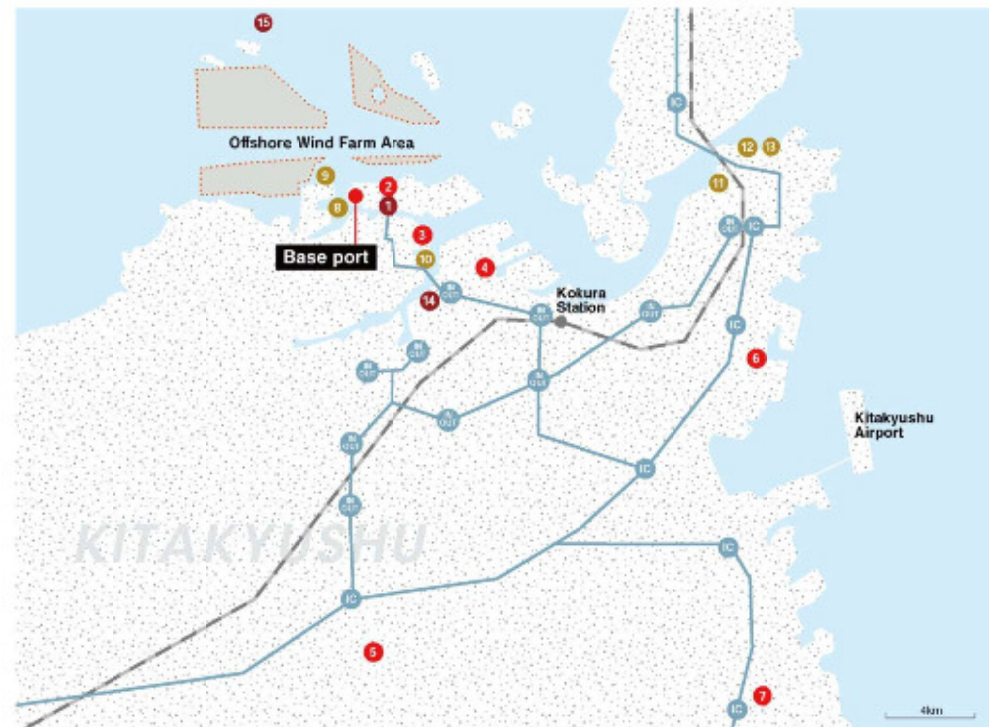
## Offshore Wind Turbine Power Generation in the Spotlight

Kitakyushu City has been working on the Green Energy Port Hibiki since 2011, however, the Japanese government has also taken steps to develop renewable energy, including wind power generation. Since the enactment of the law for construction of offshore wind farms in general sea areas in 2019, called the "Renewable Energy Sea Area Utilization Act", the environment for the spread of offshore wind power generation in Japan has rapidly progressed, including clarification of introduction targets. Additionally, the public and private sectors are jointly developing technology for the "floating type", which will become mainstream worldwide in the future.

### 2011 Kitakyushu City Green Energy Port Hibiki Project Started

[ Nation's Actions ]

2012.7	Renewable Energy Special Measures Act Enforcement (Start of FIT's aid)
2016.7	Revision of the Port Act (Establishment of an Occupancy Permit System through Public Recruitment for Port Areas)
2018.7	Strategic Energy Plan (Fifth Phase) Formulation (Renewable energy as main power source, wind power generation power source composition target by 2030 = 1.7%)
2019.4	Renewable Energy Sea Area Utilization Act Enforcement
2020.2	Revision of the Port Act (Introduction of base port system and expansion of occupancy period of port areas: 20=30 years)
2020.10	2050 Carbon Neutrality Declaration
2020.12	Offshore wind industry vision (First phase) Formulation [ Introduction Goal ] Continue designation of areas with annual capacity of approximately 1 million KW for 10 years until 2030; 10 million KW, until 2040: 30 to 45 million KW (including floating type)
2021.6	Green Growth Strategy for Carbon Neutrality by 2050 Formulation Mobilize all policies such as budgets, taxes, regulations, standardization, and private financing, etc., to promote corporate investment [ Start of public recruitment of Green Innovation Fund projects ] (Project period: 2021~2030 Technology development, etc., for floating type commercialization)
2021.10	Basic Energy Plan (Sixth Phase) Formulation (Acceleration of offshore wind power based on the Renewable Energy Sea Area Utilization Act, 2030 wind power source composition target = 5.0%)
2023.6	Floating Industry Strategy Study Group Established (Consider the state of the industry related to floating type offshore wind power, which is expected to expand in the future)



## Offshore wind energy-related industry in Kitakyushu City

● Manufacturer  
● Marine constructor ships

- O&M**  
HOKUTAKU Co., Ltd.  
1-122-13 Hibikimachi, Wakamatsu-ku, Kitakyushu
- Bearing**  
Large size bearings  
thyssenkrupp rothe erde Japan Co., Ltd.  
1-111-1 Hibikimachi, Wakamatsu-ku, Kitakyushu
- Foundation**  
NIPPON STEEL ENGINEERING CO., LTD.  
(NIPPON STEEL STEEL STRUCTURE CO., LTD.)  
64 Anse, Nakamatsu-ku, Kitakyushu
- Large Steel Structure**  
Regency Steel Japan Limited  
46-59 Nakabaru, Tobetsu-ku, Kitakyushu
- Gearbox**  
ISHIBASHI Manufacturing Co., Ltd.  
4636-15 Kamitorino, Nogata
- Cable**  
Cable harness for turbines  
Funakawa Electric Industrial Cable Co., Ltd.  
1-8 Shinmaji, Moji-ku, Kitakyushu
- Generator**  
YASKAWA ELECTRIC CORPORATION  
2-13-1 Nishimiyakichi, Yukufashi
- SEP (Jack up Vessel)**  
PENTA-OCEAN CONSTRUCTION CO., LTD.
- CTV**  
Crew transfer vessels  
Tokyo Kisen Co., Ltd.
- Floating Crane Deck Barge**  
KONDO KAIJI CO., LTD.
- Tugboat**  
Green Shipping, Ltd.  
(Mitsui O.S.K. Lines Group)
- Floating Crane**  
FUKADA SALVAGE & MARINE WORKS CO., LTD.
- Cable Laying Vessel**  
The Nippon Salvage Co., Ltd.
- Training**  
NISSUI MARINE KOGYO CO., LTD.  
Nippon Survival Training Center  
2-6-27 Gino, Tobetsu-ku, Kitakyushu
- Floating Offshore Wind Turbine**  
New Energy and Industrial Technology Development Organization

Kitakyushu Port & Harbor Bureau "Green Energy Port HIBIKI" Project Office  
1-1 Jonai, Kokurakita-ku, Kitakyushu Phone +81-93-582-2994

Port of Kitakyushu website  
<http://www.kitaport.or.jp/index.html>



Green Energy Port HIBIKI Project website  
<https://www.youtube.com/watch?v=wycv09MYOLw>  
(Videos of the project overview)

