

# Renewable Energy Policy of Kitakyushu City



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# Outline of Kitakyushu City

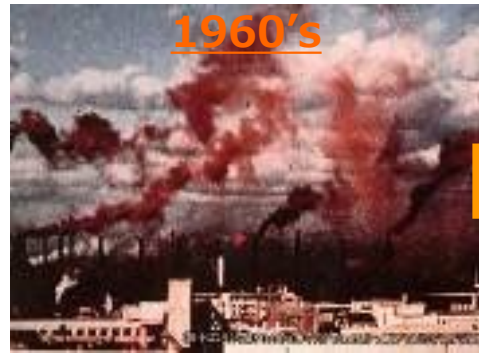
Inauguration	1963, equal merger of 5 cities (Moji, Kokura, Wakamatsu Yahata, Tobata)
Area	491.71 km <sup>2</sup>
Population	About 0.915 million (January 2024)
No. of households	About 440,000 (January 2024)
Major industry	Steel, chemicals, cement, ceramics, automobiles, etc



## <History as an environmental leading city>

- 1901: State-own Yawata Steel Works (currently Nippon Steel Corporation) began operations.
- 1960's: Faced serious pollution problems such as air and water pollution
- 1980's: Citizens, universities, businesses, and government worked together to overcome pollution
  - Selected as a "City of Starry Skies" by the then-Environment Agency
- 2017 Received a Special Award of the first Japan SDGs Award by the national government
- 2018 Selected by OECD as a model city for its Model Cities and Regions for the SDGs programme, for the first time in Asia
- 2018 Selected as "SDGs Future City" of the first round of selection in Japan
- 2022 Selected as a "Decarbonization Leading Area " by the Ministry of the Environment

# City of Industry, the Environment and Port



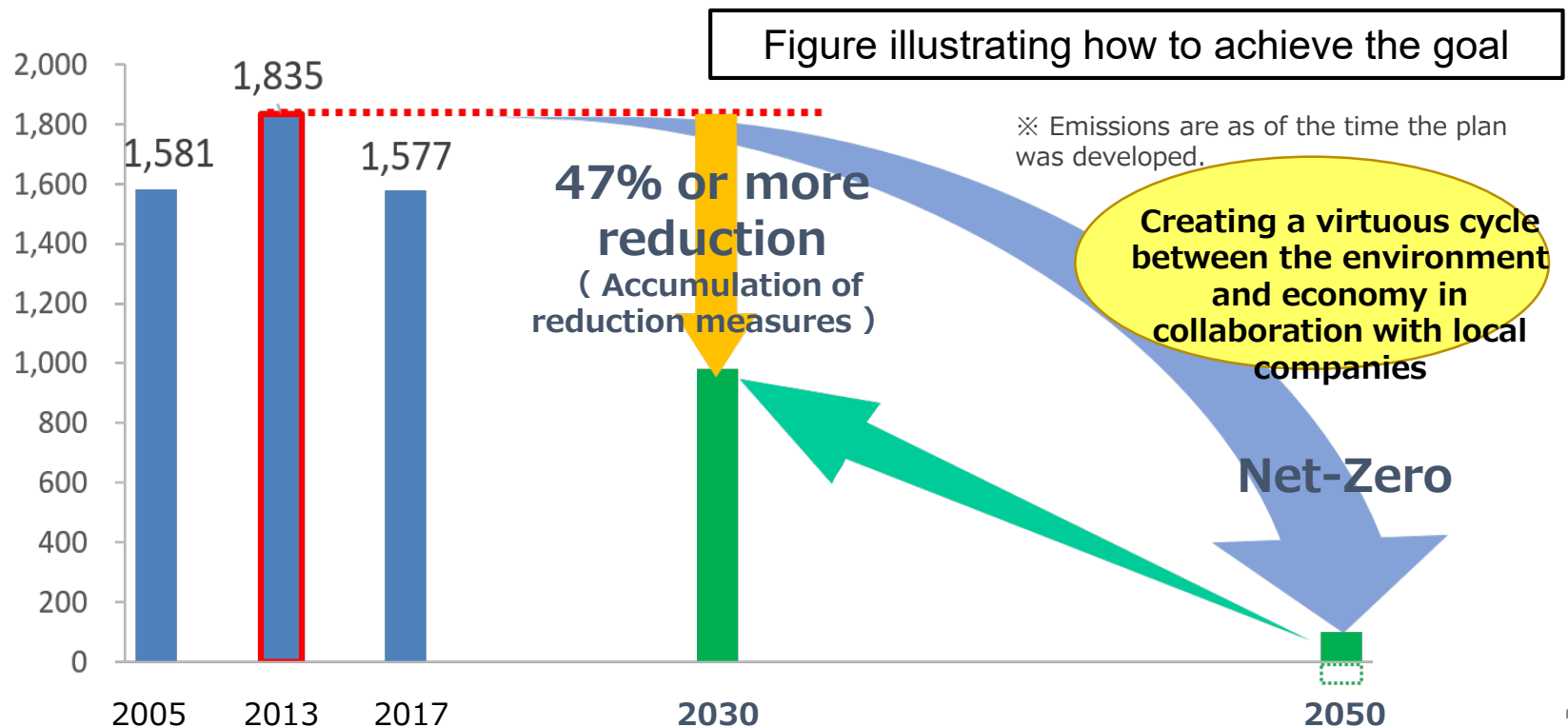
# GHG Reduction Goal of Kitakyushu City

**FY2050 (Goal)**

Achieving **net-zero greenhouse gas emissions** in the city

**FY2030 (Goal for achievement : Target)**

**47% or more reduction** from FY 2013 levels



# Kitakyushu City Green Growth Strategy, Action by FY2030

## Base city that promotes decarbonized electricity

- Introduce PV, EVs, and storage batteries under third-party ownership model and expand the use of decarbonized electricity
- Create industries to reuse and recycle PVs and storage battery, etc.
- Promote the introduction of wind power and create a comprehensive base for wind power-related industries

<FY2030 Forecast>

Renewable energy capacity :  
1,302~1,402MW

## Hydrogen Supply and Hydrogen Supply and Use Base City

- Develop a collaborative framework to expand the use of hydrogen
  - Establishment of a hydrogen-related platform
- Conduct demonstrations and studies on the establishment of hydrogen supply systems
  - Inject hydrogen-based synthetic methane into city gas pipelines
  - Study on the potential of supplying hydrogen on a wide scale in the future
- Stimulate demand and matching using hydrogen in the city

<FY2030 Forecast>

Hydrogen demand : 5,700t/year

## Support for private sector to drive innovation

- Develop platforms that will lead to the creation of decarbonized businesses
- Provide guided support to companies on how to effectively use public funds and obtain financing from the private sector
- Set up programs to train and acquire human resources to promote the development of a decarbonized society



# Actions at the Decarbonization Leading Area

## 【Decarbonization Leading Areas (DLAs)】

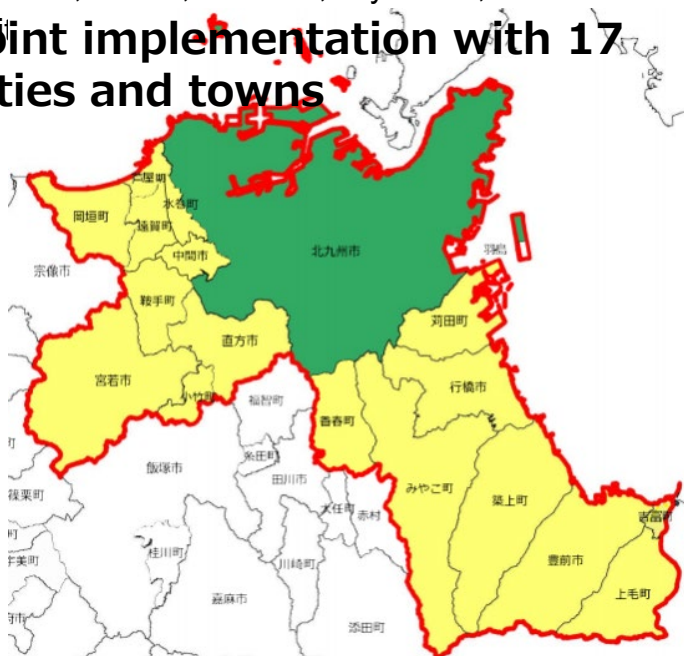
The Ministry of the Environment designates at least 100 DLAs by 2025 which **demonstrate carbon neutrality in households and business sectors by FY2030**, 20 years earlier than 2050. Kitakyushu city was designated as a DLA in 2022.

## 【Actions at the DLA】

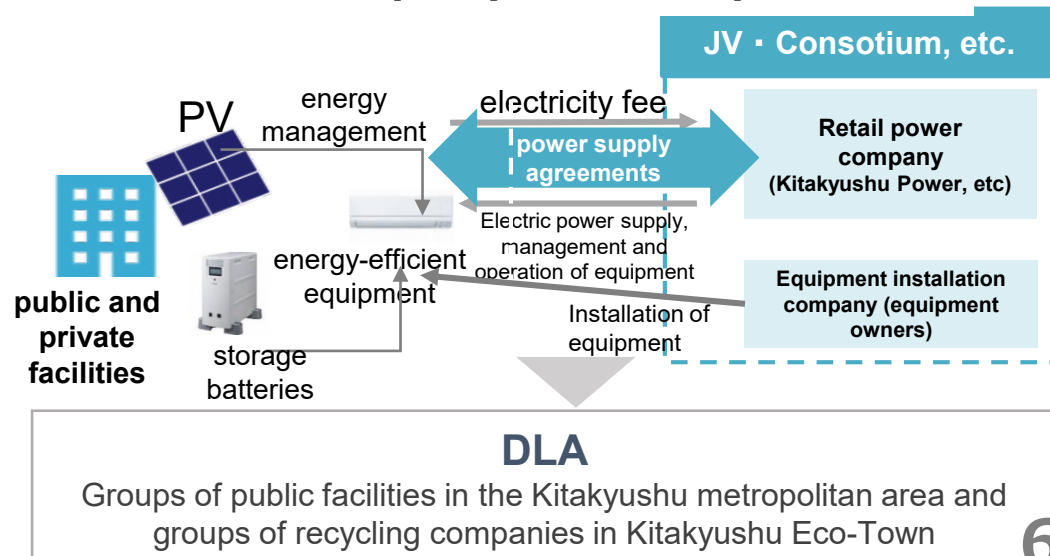
**Introduce a third-party ownership model for PVs/storage batteries to all facilities where solar panels can be installed, targeted at a group of public facilities in the Kitakyushu area and recycling companies in the Kitakyushu Eco-Town.**

**【Member】 City of Kitakyushu + 17 cities and towns in the Kitakyushu metropolitan area (Cities of Nogata, Yukuhashi, Buzen, Nakama, Miyawaka; towns of Ashiya, Mizumaki, Okazaki, Onna, Kotake, Kurate, Kawara, Kanda, Mivako,**

**Yoshii. Joint implementation with 17 cities and towns**



## Introduction of PVs with the third-party ownership model



# Local Production and Consumption of Renewable Energy and Energy Management by PPS

## Kitakyushu Power (PPS)

※Established in December 2015, as only one power producer and supplier (PPS) in Kitakyushu City



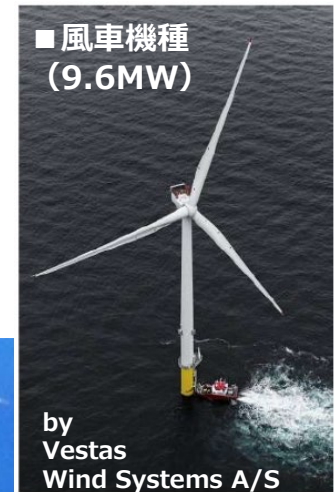
- Establishment: December 2015
- Capital: JPY 60 million
- Services: electricity retail and energy management services
- The City of Kitakyushu contributed 21.6% of its capital.

Strengthening the competitiveness of companies through local production for local consumption of renewable energy by supplying clean electricity generated at **three waste incineration plants** in Kitakyushu City and **renewable energy** such as solar, wind, and biomass power generation (**655 MW, the highest level among ordinance-designated cities**) accumulated in the Hibikinada waterfront area to customers in the city.



# Offshore Wind Farm

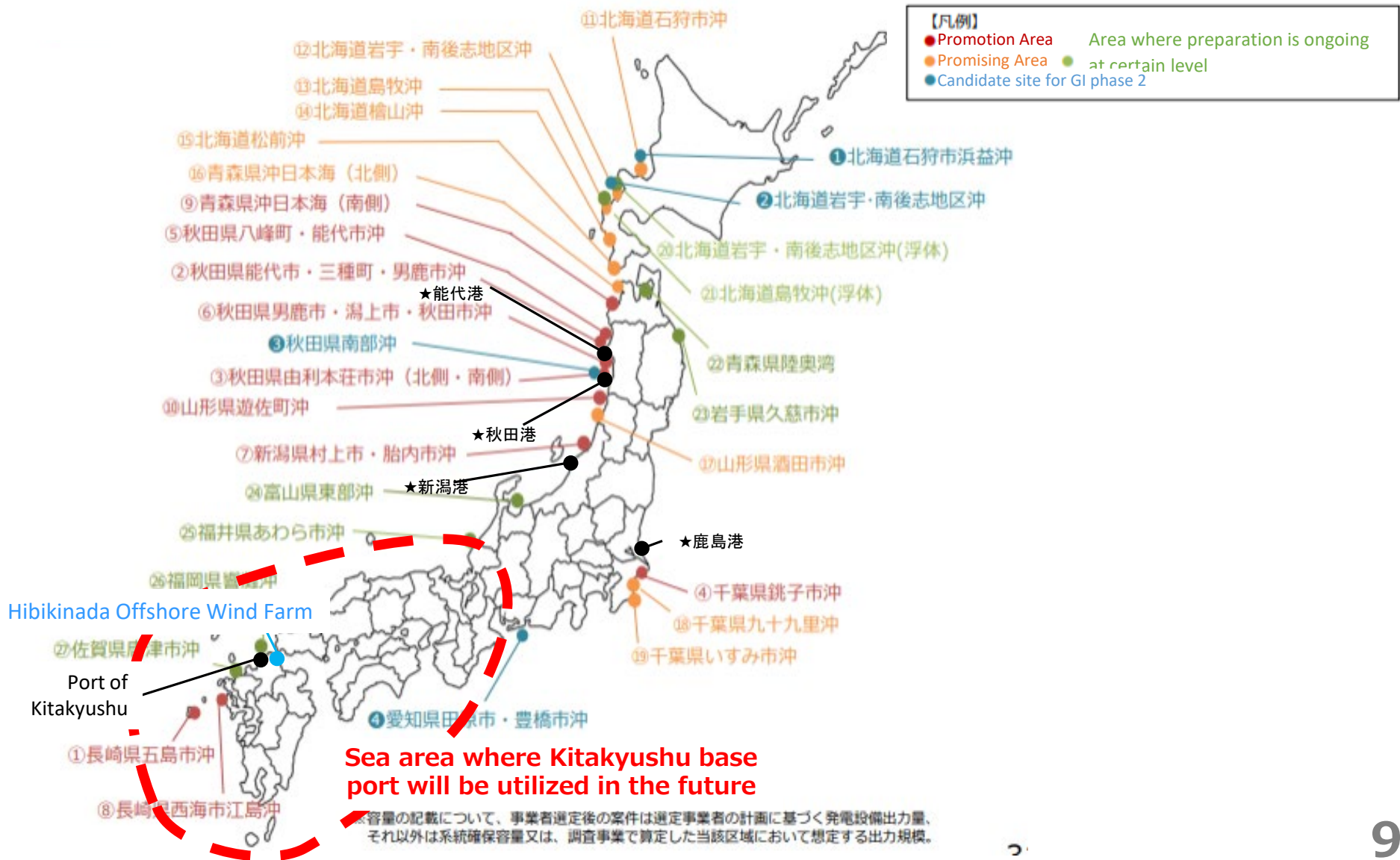
- Name : Kitakyushu Hibikinada Offshore Wind Farm
- Business entity : Hibiki Wind Energy Co., Ltd.
- Total Project Cost : JPY 170 billion
- Total output : Max. 220,000kW (≒9.6MW×25 unit)  
which will be the largest offshore wind farm in Japan upon its completion
- Start of construction : March 2023





# Base port market

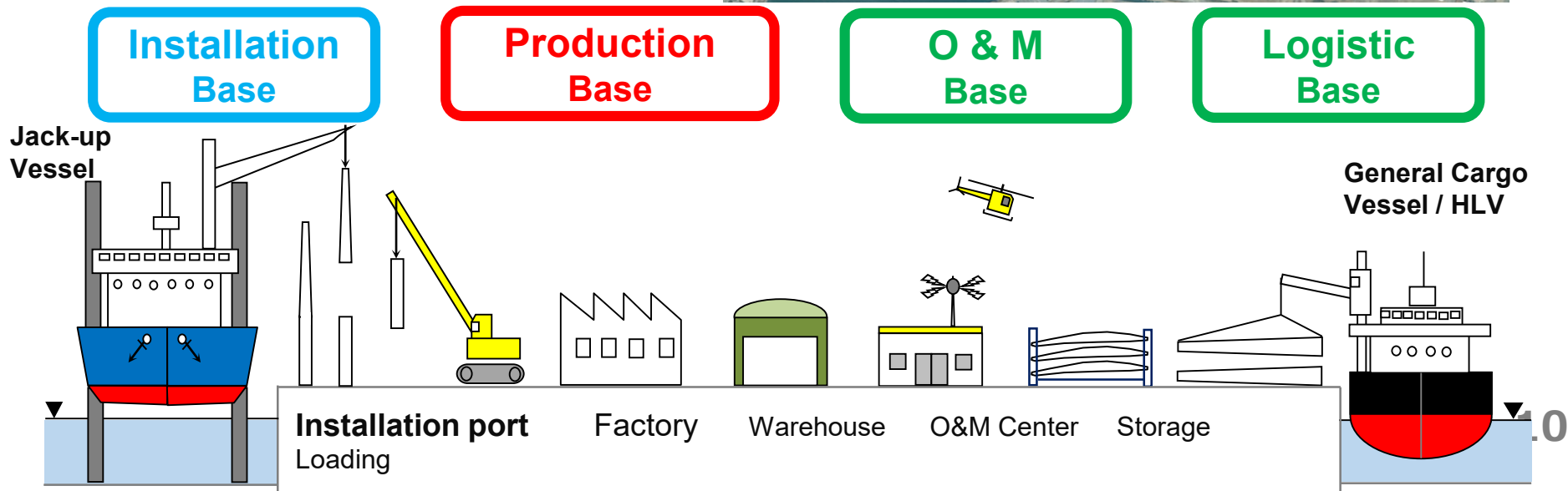
(Port of Kitakyushu : only one base port in West Japan)



# Formation of a comprehensive base for wind power related industries

## Goal

Form a **"comprehensive, four-function base"** for wind power-related industries



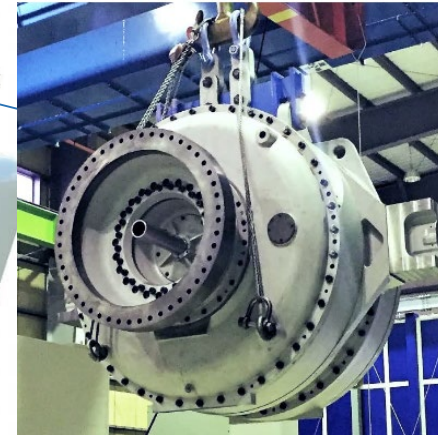
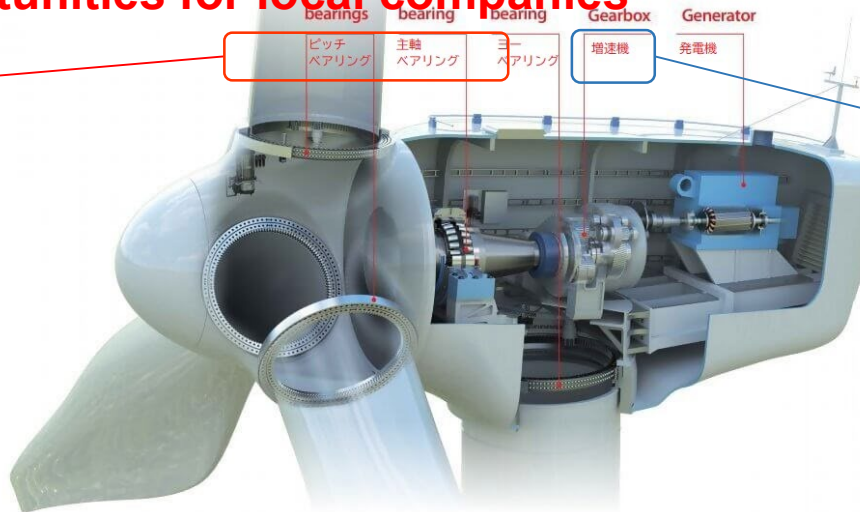
# Creating a manufacturing industry base

## ◆ Formulation of domestic supply chain of Wind Turbine Components

→ **Creation of opportunities for local companies**



Large bearings  
(thyssenkrupp rothe erde Japan Ltd.)



Speed increaser (Ishibashi Manufacturing Co., Ltd.)



Tower (Japan Steel Tower Co., Ltd)



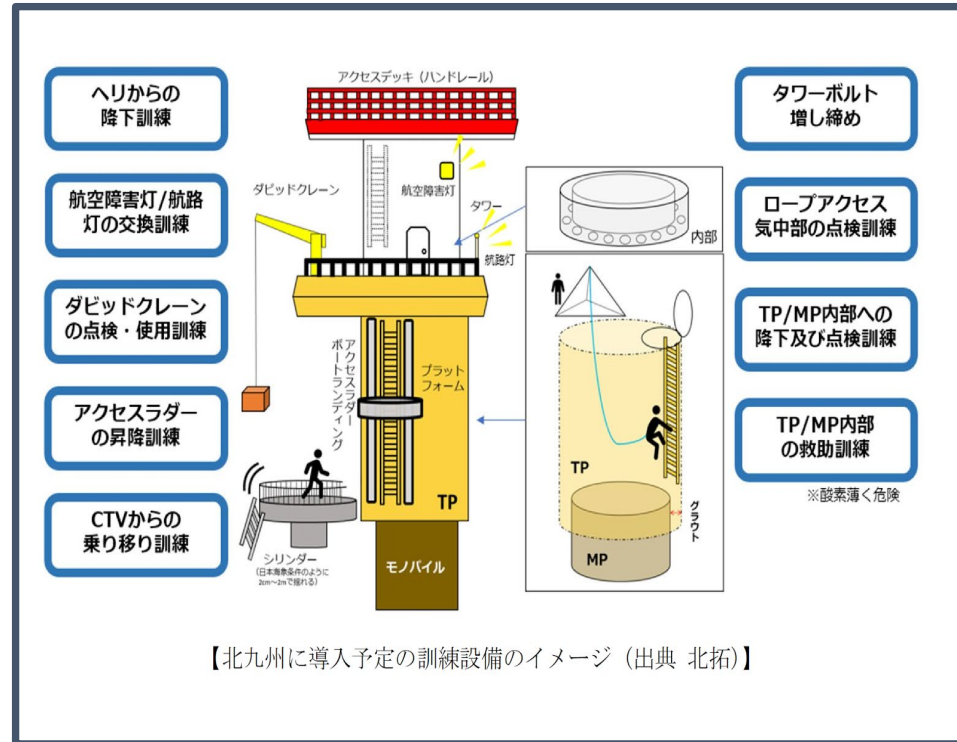
Fixed foundation/jaket-type (NIPPON STEEL ENGINEERING CO., LTD.)



Steel pipes (Regency Steel Japan Ltd.)



# Creating a next generation O&M base (human development center)



【北九州に導入予定の訓練設備のイメージ (出典 北拓)】

(1) Fire prevention and extinguishing, 2) working at height, 3) manual handling, (4) First Aid, (5) Sea Survival \*Only 2 locations in Japan

Full-scale training facility with offshore wind turbine foundations (actual equipment) is scheduled to be

operational in 2024.

Source : Hokutaku HP <http://www.hokutaku.co.jp/news/20230206.html>

Source : Nippon Survival Training Centre HP <https://n-s-t-c.com/>



# Future Development

Support for  
"floating type" and  
SC construction



Adaptation to  
larger wind turbines  
and  
SC construction



Formation of next  
generation O&M center  
and human resource  
development







Thank you very much